Kin and knowledge

The meaning and acquisition of Indigenous Ecological Knowledge in the lives of young Aboriginal people in Central Australia

Josie Douglas

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy
Cover image:
Utnerrenge / emu bush (Eremophila longifolia) is harvested to ‘smoke’ a baby. Here, a younger woman and her grandmother gather utnerrenge to smoke their nephew and grandson. Young people hold strong feelings for their kin. They demonstrate their care through the use of certain natural resources and practices. Feelings of ‘relatedness’ continue to be the currency of Local Knowledge. Emotional practices underpin IEK sharing and learning.
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Josie Douglas
A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

The Northern Institute
Institute of Advanced Studies
Charles Darwin University
August 2015
Thesis declaration

I hereby declare that the work herein, now submitted as a thesis for the degree of Doctor of Philosophy of the Charles Darwin University, is the result of my own investigations, and all references to ideas and work of other researchers have been specifically acknowledged. I hereby certify that the work embodied in this thesis has not already been accepted in substance for any degree, and is not being currently submitted in candidature for any other degree.

Josie Douglas

18 August 2015
Dedication

I dedicate this work to my grandmother, Warrgiya (‘Maggie’).

You were the daughter of Ngamarrwulanja and Garrawula. You were a traditional Wardaman woman.

You were fluent in your language. Born and raised on Wardaman country; a land you never left.

I, your granddaughter, have always lived a long way from Wardaman country. I never met you, Warrgiya; you died before I was born.

I know you through spoken memories and stories.

This may be the first written record of you. In a world where writing holds power, here I honour your memory.

I think of you all the time.
I wish to thank the many young Aboriginal people and their families for their contribution to this thesis. This research would not have been possible without you. Thank you for trusting me with your stories and for generously sharing your time. I also wish to thank the Aboriginal and non-Aboriginal community members who enthusiastically supported this research.

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I am grateful for the assistance and advice provided by my supervisory panel: Associate Professor Tess Lea, Dr Jocelyn Davies, Dr Inge Kral and Dr Aggie Wegner. Aggie joined the panel halfway through my candidature as Tess moved from Charles Darwin University to the University of Sydney. Each one of my supervisors contributed a unique perspective and I thank each of you. I also thank Ruth Wallace at Charles Darwin University for her constant support throughout my candidature.

I wish to express my appreciation and thanks to the following organisations in Alice Springs and Tennant Creek: the Central Land Council, Akeyulerre Healing Centre, Tangentyere Council, MacDonnell Shire, Waltja, and Barkly Arts. At the Central Land Council, I especially thank David Alexander, Kim Webeck and Jane Hodson for their support and belief in this project. Jane Hodson passed away in March 2014 and is sadly missed by many. At the Akeyulerre Healing Centre the generosity of Jane Ulrik, ‘MK’ Turner, Amelia Turner and the families at the centre made a tremendous difference to this study. I also thank Veronica Dobson and Jenny Green for their support and friendship over many years.

I am most thankful for the ongoing financial support from CSIRO and Charles Darwin University. I also received financial support from the Central Land Council and was fortunate
enough to be the recipient of the Annie Blackwell Scholarship in 2013.

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I wish to thank Mike Gillam for allowing me to use two of his photographs in the thesis. I am also grateful to the generous hospitality of Tony Cunningham during a writing retreat in Perth.

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And finally and most importantly, I come to my husband and children. Without the strength and support of my partner, Richard (‘Woe’), this thesis would not have been possible. Thank you for being by my side every step of the way. I thank my children Acacia, Jackie, Shawn and Luke for your tolerance and patience. My gorgeous family, thank you for all that you have done to support me during the completion of this thesis.
Abstract

This is an ethnographic study about young Aboriginal people in Central Australia. The voices and opinions of more than 150 Aboriginal youth were analysed. My findings show that Indigenous Ecological Knowledge (IEK) is an active part of their lives. This knowledge and practice contributes to the identity and pride of youth from Central Australia.

Young Aboriginal people are commonly portrayed in the media as problems. Negative stereotypes and deficit narratives imply they occupy a failed space within and between Aboriginal and non-Aboriginal worlds. Youth are said to be lacking in culture and disinterested in cultural practices. My findings contradict such stereotypes and deficiencies.

The lived experiences of Aboriginal people are often invisible to mainstream Australian society. Rarely do we hear from young Aboriginal people themselves. Their role as players in a system of knowledge is simultaneously ignored and assumed. IEK is characterised as the domain of the older generation but not younger generations. This thesis goes beyond academic attention to IEK in environmental programs, developmental theories or the nexus between Indigenous and Western or scientific knowledge.

The study explores the social lives of young Aboriginal adults. Mixed methods were used to examine the learning practices, learning contexts and cultural acquisition processes that underpin IEK. Qualitative results from interviews, surveys and observations are presented. I look at how IEK is made to happen, how knowledge and practice is realised in contemporary contexts.

The study shows that people's everyday lived experience integrates IEK. Cultural knowledge is vulnerable to the stresses and forces of modern life; yet it persists. Factors that enable IEK to persevere are examined. I have found that hunting, bush food and medicine harvesting, and natural resource use contribute to IEK. Practices and beliefs are enriched through ceremonial life, health and healing, and in observances in bereavement and funerals. Amongst younger people there is an ongoing belief in the sentience of country.

This research revealed that IEK is a vital part of youth values and beliefs. Beliefs inform youth practice. IEK is expressed through relationship to families and people's connections to each other. Young people demonstrate their care for older and younger generations through the collection, preparation and use of natural resources. ‘Relatedness’ continues to be the currency of knowledge transmission. Feelings of love, duty and care motivate young people to listen, learn and do things for their older and younger loved ones. Deep and powerful feelings for family members call young people to action.

Young people are integral to the future of Indigenous Ecological Knowledge and practice in Central Australia.
# List of shortened forms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ATSIC</td>
<td>Aboriginal and Torres Strait Islander Commission</td>
</tr>
<tr>
<td>BIITE</td>
<td>Batchelor Institute of Indigenous Tertiary Education</td>
</tr>
<tr>
<td>CD</td>
<td>compact disc</td>
</tr>
<tr>
<td>CLC</td>
<td>Central Land Council</td>
</tr>
<tr>
<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
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<tr>
<td>ICC</td>
<td>Indigenous Coordination Centre</td>
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<tr>
<td>IEK</td>
<td>Indigenous Ecological Knowledge</td>
</tr>
<tr>
<td>IK</td>
<td>Indigenous Knowledge</td>
</tr>
<tr>
<td>IPA</td>
<td>Indigenous Protected Area</td>
</tr>
<tr>
<td>ITK</td>
<td>Indigenous Technical Knowledge</td>
</tr>
<tr>
<td>LEK</td>
<td>Local Ecological Knowledge</td>
</tr>
<tr>
<td>LK</td>
<td>Local Knowledge</td>
</tr>
<tr>
<td>MILR</td>
<td>Maintenance of Indigenous Language and Records</td>
</tr>
<tr>
<td>NT</td>
<td>Northern Territory</td>
</tr>
<tr>
<td>PAW Media</td>
<td>Pintubi Anmatjere Warlpiri Media</td>
</tr>
<tr>
<td>TEK</td>
<td>Traditional Ecological Knowledge</td>
</tr>
<tr>
<td>TK</td>
<td>Traditional Knowledge</td>
</tr>
<tr>
<td>VRD</td>
<td>Victoria River District</td>
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1/ Changing ways of life

This is a study of young Aboriginal adults and the intergenerational transmission and acquisition of what is most often referred to as Indigenous Ecological Knowledge (IEK). IEK is best understood as a system of knowledge, meanings, values and practices deeply embedded in the way that Aboriginal people enact their relationships with each other, with their country, their use of its natural resources, and with their forebears (Smallacombe, Davis, Quiggin et al. 2007). In Central Australia the intergenerational acquisition and transmission of IEK allowed countless generations to persist and thrive in Australia’s arid interior. Intimate knowledge of the land and its biotic and abiotic resources was acquired through practical experience on custodial lands; multi-modal transmission of a vast and rich knowledge system was embedded within a complex social and religious life that had tacit and mundane as well as explicit and ritualised components (Meggitt 1962; Strehlow 1965; Myers 1988; Hamilton 1998). It was in this context that practical knowledge of the environment and socio-cultural relationships to country were transmitted from one generation to the next. Skills and knowledge were imbued as part of everyday life experiences and participation in culturally specific activities (Ochs 1985; Rogoff 1990; Devitt 1994; Miller & Goodnow 1995; Hewlett & Lamb 2005).

Colonisation changed Aboriginal life irrevocably, and interferences have been ongoing ever since. Young adults are now coming of age within a very different world compared to that of their forebears, with profound changes in the way Local Knowledge systems are socially reproduced. The social reproduction of knowledge is vulnerable to the vicissitudes of history: each
generation has had to adapt what they do to suit the shifting circumstances of their lives. While it is widely accepted that culture is dynamic, adaptable and ever changing, the social contexts and practices that constitute IEK are somehow assumed to be perennial. However, it is simply impossible for younger generations to acquire IEK in the same way as pre-invasion generations.

Young Aboriginal adults in remote Australia face many pressures. They cannot fully emulate the social and cultural lives of previous generations, nor can they equitably access and participate in opportunities made available to youth in wider Australian society (Tonkinson 2011). The challenges for young people in relationship to IEK are many. There are fewer people to learn from, less time for learning, and country is further away due to centralised living, dispossession and urbanisation. IEK now has to fit within the dictates of the Gregorian calendar and industrial clock times. Youthful aspirations to learn and the desire of elders to teach are multiply constrained and young and old have to be endlessly canny in putting together ways and means to be on country and to use its resources.¹ (As we will see, the strategies of young and old characterise the dynamism and innovation of contemporary IEK in Central Australia, explaining both its resilience and its precarity.)

Moreover, young Aboriginal adults have multiple points of reference and assimilate both Aboriginal beliefs and traditions with those of mainstream Australian society (Eickelkamp 2011). That they mix things up is not the key point. This thesis explores how they do so, why they do so, and what they have to say about it. My central research question asks: Is Indigenous Ecological Knowledge important and present in the lives of young Aboriginal people living in Central Australia? Secondary research questions include: How are Aboriginal youth socialised into understanding IEK in Central Australia? How do young Aboriginal adults practise and use IEK in everyday life? What are the contemporary contexts underpinning IEK transmission and acquisition? And, finally, what are the attitudes and future aspirations of young adults towards IEK? Given the background of dispossession and disruption to Indigenous social, cultural and economic lives, this thesis considers why IEK should continue to exist at all in the

¹ ‘Country’ and ‘on country’ are Aboriginal English terms used throughout this thesis. This term has been well documented in literature on Aboriginal land relations. Country refers to land that people have traditional ties to and that continues to be significant: emotionally, spiritually and culturally. This is explained as ‘Each country is itself the focus and source of Indigenous law and life practice’ (Rose 2005, p. 295). People with spiritual affiliations and interests in land are described as owners, managers or custodians (Yibarbuk et al. 2001, p. 328). Custodial country or custodial responsibilities relates to groups of people who have rights and responsibilities for land and rituals. For example, a custodial responsibility includes decisions on burning, identifying areas to burn and when (Yibarbuk et al. 2001, p. 328).
Figure 1. Towns, communities and Aboriginal language groups of the study region in Central Australia. Language distribution based on map by the Institute for Aboriginal Development (2002). (Cartography © B Thornley 2015.)
Figure 2. Alice Springs, including the major Aboriginal organisations and town camps. (Cartography © B Thornley 2015)
lives of young Aboriginal people. Fundamentally, I explore whether the repertoire of young people’s life experience includes IEK, and whether young people view IEK as part of their future. What does the intergenerational transfer of IEK look like in this profoundly changed and still changing world?

This research is based on the lives of young Aboriginal adults aged 16 to 24 years of age, but also includes the perspectives of older Aboriginal and non-Aboriginal people. As the lives of older people are central to the lives of younger people (Wyn & White 1997), the views of older Aboriginal people, as well as non-Aboriginal people with long-standing relationships with Aboriginal families and communities, are included. I use pseudonyms throughout this thesis. Spoken excerpts cited in this thesis are drawn from interview transcripts (these are italicised; quotes from the literature are not). I recognise that for Aboriginal people, age is not the focus; rather, life stages and relative degrees of maturity are what matter (Morphy 2006, p. 24). Social markers of adulthood in Western societies include employment, stable relationships, independent living and parenthood (Blatterer 2007). Aboriginal recognition of adulthood is different. For young women, this occurs after having two children and for young men through initiation.²

The broad geographic setting of this research is Central Australia, or the southern half of the Northern Territory (see Figure 1). Specifically, I focus on Arrernte and Warumungu youth from Alice Springs and Tennant Creek.³ The Arrernte youth in this study have family connections to Alice Springs and the remote Arrernte communities of Ltyentye Apurte (Santa Teresa) and Ntaria (Hermannsburg), former Catholic and Lutheran missions respectively.⁴ In Alice Springs, I worked closely with young people from two Arandic town camps. I also use pseudonyms for these town camps, calling them East Camp and West Camp (see Figure 2).⁵

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² Lorna Wilson, personal communication, 17 July 2012. Wilson is a Pitjantjatjara woman, teacher/linguist and cross-cultural facilitator.
³ It is estimated that there are about 4500 Arrernte and 500 Warumungu people (IAD Press 2002).
⁴ Throughout this thesis I will refer to these two communities as Santa Teresa and Ntaria, which are the names that the people involved in the research commonly call these communities. Eastern Arrernte is spoken at Santa Teresa and Western Arrernte is spoken at Ntaria.
⁵ Older town camp residents expressed their perceived concerns about long-term and continued negative publicity on town camps. Although their concerns were not in direct relationship to my research, nonetheless I took their views seriously and decided to use pseudonyms. ‘Town camp’ is the colloquial name for areas of land known as ‘Aboriginal Living Areas’ granted under special government lease. There are 16 town camps or Aboriginal housing associations in Alice Springs and seven in Tennant Creek. These housing associations are serviced by Tangentyere Council and Julalikari Council. In Northern Australia, town camps are also known as ‘fringe camps’ or ‘long grass camps’.
Figure 3. Tennant Creek, including the major Aboriginal organisations and town camps.
(Cartography © B Thornley 2015)
As Tennant Creek is much smaller in size, I don’t distinguish between the town and its town camps, nor did I work with any nearby remote communities (see Figure 3).

It is important to note that I have not worked with an Aboriginal community per se but with groups of Arrernte and Warumungu people – young, middle-aged and senior – as well as non-Aboriginal people. The historical and contemporary circumstances of individuals and family groups and the shifting grounds of generational experience better reveal the nuances of IEK adaptation and change compared to an examination of IEK at a community level. The generic label of ‘community’ can disguise more than it reveals. As a broad descriptor, ‘community’ serves a purpose, but comes up short when detailing intimate transactions of everyday life. It has also been questioned whether such a thing as an ‘Aboriginal community’ exists given that it has no precedent in Aboriginal life (Hinkson 2010, p. 214). Aboriginal ‘communities’ are not analogous with Aboriginal settlements or even urbanised town life. Memmott and Moran (2001) make the point:

If we think of community as a group in a regular social network with close affiliations and a common identity, then we may find several different ‘communities’ within the one Indigenous settlement. Likewise, several different settlements may be utilised by one such community.6

Importantly, I am not trying to feign ethnographic holism by undertaking a community study; rather, I am aiming to be true to the contemporary reality of IEK transmission and practice by showing it to be held together through patchwork reinventions and opportunistic milking of chances to be on country. Aboriginal life in Central Australia today is a field of interrupted opportunities for vivifying ecological knowledge.

Central Australia is a vast, sparsely populated region with Alice Springs and Tennant Creek its two main urban centres (Stafford Smith 2008).7 The size of the Aboriginal land and sea estate in the Northern Territory is unequalled in Australia: it comprises 50 per cent of the land mass and 85 per cent of the coastline (Altman, Buchanan & Larsen 2007, p. 33; Langton, Palmer &

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6 Electronic article, no page number.
7 Alice Springs has a population of 28,500 (Yuhun, Taylor & Winter 2013); Tennant Creek is much smaller with a population of 3,500 (Anyinginyi Health Aboriginal Corporation 2014).
Seventy per cent of Aboriginal people in the Northern Territory live on Aboriginal-titled land (Commonwealth of Australia 2008). The proportion of Indigenous to non-Indigenous people is also higher in the Northern Territory than in the rest of Australia: 30 per cent of the total Territory population is Aboriginal (Australian Institute of Health and Welfare 2015, p. 8). Elsewhere, the Indigenous population is 5 per cent or less (Australian Institute of Health and Welfare 2015, p. 8). In this context, it is the current generation of young adults who are the future landowners of large areas of Central Australia. Their knowledge base and experience on country will impact upon their capacity to make culturally informed decisions, to uphold and maintain the language–knowledge systems that culturally informed decisions depend upon, and to manage lands for which they have custodial and legal rights and responsibilities. If young Aboriginal adults are to acquire the socio-cultural competence to manage such a significant part of the Australian estate and positively shape their own futures, then understanding the intergenerational transmission of cultural values, knowledge and skills is critical.

In contemporary Aboriginal life, knowledge about country, plants and animals is exemplified as a major component and reflection of IEK (Turner, Ignace & Ignace 2000). In consideration of its contemporary expressions and manifestations, when talking to young people about IEK, I frame it in terms of ‘hunting’ or ‘going out bush’. These were the terms commonly used by young and old during my early consultations and fieldwork trips. Aboriginal people describe ‘the bush’ as a key learning site and this usage is reflected in my thesis. Yet, as I also show through the case examples, IEK is generated and passed on in urban places. The social reproduction of some knowledge and practice are ‘transportable’ where the people and resources can be moved or interchanged. For example, a baby-smoking ceremony in an urban women’s health centre uses leaves from plants that have been collected in Alice Springs and taken to the health centre. Here, knowledgeable senior Aboriginal women perform the role of a grandmother for women without living kin available or who live a long distance away. However, there are also many practices that are not ‘transportable’. For example, digging for yerrampe (honeyants /...
1 / Changing ways of life

*Camponatus inflatus* can only be done on ‘red dirt’ mulga (*artetye / Acacia aneura*) country to which people are custodians.

I will show that hunting and use of natural resources are a constitutive part of the youth experience of IEK, complementing other expressions of IEK in ceremonial rites of passage, baby well-being rituals, funerals, health and healing practices and, above all, an ongoing belief in the sentience of country. That these are the practices that continue within Aboriginal societies, and that these practices are still enacted against extraordinary odds, is directly related to the values and skills considered most important by Aboriginal people (cf. Sahlins 1981; Rogoff 1990).

This commitment to culture is not a mystery to local Aboriginal people. What is a mystery is what young people think about IEK and culture more generally. As Mitchell Biljabu, a senior Martu man, has put it, ‘We need to know what our young people are thinking. They not talking to the old people’ (quoted in Lewis 2008, p. 16).9 While IEK is widely understood as being highly valued by senior Aboriginal people, little is known of IEK and the younger generation. This is not to say information about young people does not exist. In fact, there is a great deal of public knowledge about young Aboriginal people, but this tends to be framed by a narrative of disadvantage and poverty (Kral 2010). While research reports and government policy objectives provide a picture of how young people are faring across health, education and employment domains, young people’s social and cultural lives remain relatively invisible (Eickelkamp 2011, p. 1). Less is known about the everyday life of young people, their direct experience of using natural resources, and their affiliation with country. The experience, practice and knowledge that young adults have with IEK is known and assessed using adults as proxies for young people’s experience, rather than through the experiences and voices of young people themselves.

Oddly enough, there is an affinity between the rhetoric of the older generation of Aboriginal people and the discourse of the dominant culture in that both relate to perceived youth under-achievement, albeit from two very different worldviews and ideological systems. The non-Aboriginal view equates Indigenous youth with substance misuse, violence, anti-social behaviour, petty crime, incarceration, poor levels of literacy, unemployment, teen pregnancies, and with histrionic behaviour, including extravagant and copycat threats of suicide. Older Aboriginal people tend to characterise young people as resistant to learning, distracted, uninterested in

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9 Martu country is to the far west of Alice Springs in the Western Desert of the Pilbara region in Western Australia.
'old things,' favouring only 'new things.' They will also say that young people have closed their ears and 'don't know anything.'

If we are to believe the stereotypes and generalisations, then Aboriginal youth in Central Australia occupy a failed space within and between Aboriginal and non-Aboriginal worlds. This unforgiving picture deserves closer inspection. This thesis directly explores the social realities of young people from their points of view. It also examines how IEK is reproduced and expressed in contemporary life by focusing on its adaptation to suit the circumstances and needs of Aboriginal people in Central Australia and the strategies required to keep IEK alive. Despite the very real concern surrounding the decline of IEK (Maffi 2001b, pp. 265–378; Johnson 2006), I show that social processes and practices of IEK continue to be present in the lives of young Aboriginal people. IEK continues to exist because it remains relevant to young people's needs. Custodial country and its natural resources remain vital to young people's identity, their values and their sense of who they are in a world that is constantly changing and being changed for them. My central argument is that IEK has been kept alive by the dynamism and adaptability of Aboriginal social systems.

The danger with describing the nature of IEK, how it is reproduced, and what reproducing it requires, is that I may promote a static or reified account of traditional culture and IEK practices. While that is not my intention, the risk remains embedded in the subject matter. IEK is usually framed in terms of classical or traditional Aboriginal societies: a precious knowledge that is now in the minds and bodies of a dwindling older minority. Anything outside of these narrow definitions is considered false, inauthentic or approximate (Semali & Kincheloe 1999). Consequently, almost by definition, young people walking around their country with mobile phones, music 'beats' on the go and wearing 'snap-back' basketball caps don't have IEK. There is often an (unwarranted) conclusion that because IEK does not look like IEK as it is imagined to have been practised in the past, IEK no longer exists, and certainly does not exist in the lives of young Aboriginal people. With modern lifestyles, young people are presumed to possess certain characteristics and behaviours that are very different to the older generation (Lesko 1996). While there is truth to this, I will also show there are actually similarities between the generations, strengths where people least expect them, and vulnerabilities that are barely accounted for.
Anthropologist Francesca Merlan observes the importance of ‘overcoming a persistent “traditional” versus “modern” dichotomy’ in the Australian anthropological literature to better understand contemporary subsistence life and daily routine (Merlan 1991, p. 66). Indeed, Australian anthropology has been characterised as past-oriented: one which concerns itself with tradition and continuity set against accounts of change (Macdonald 2002, after Peterson 1999). Such retrieval accounts can gloss the complexities of the present in focusing on constructions of what might have been in terms of a reconstructed past, whereas my interest in IEK is in terms of its present.

Attention to social systems and processes are not new themes in studies of IEK. Views on the inter-relatedness between ecological and human communities are found in examinations of social-ecological systems and resilience (Folke, Berkes & Colding 1998, Folke 2004, Olsson, Folke & Berkes 2004, Walker et al. 2004); along with increased recognition that cultural knowledge is intrinsic to biological knowledge (Rose 2005). My work breaches the gap between scientifically documented IEK content, and knowledge of its reproduction or transmission between generations in contemporary life. There is a tacit assumption that the fit between generations presents no problem in the transfer of IEK. Simply take some knowledgeable elders, ensure they mix with young people, and see the work of transmission done. This assumption may be unwarranted. At best, it needs to be tested because little is understood of how young Aboriginal people reference and apply IEK in their daily lives. Their brokerage role, as important players in a system of knowledge, is simultaneously assumed and ignored. They are simply receptacles. Very little in the Australian literature sheds light on contemporary socialisation processes relating to the practices underpinning IEK acquisition and transmission. It is impossible to understand the nature of intergenerational acquisition and transmission without understanding the role of young adults in this process, yet this too has rarely been addressed in research.

With young adults both prejudged and understudied, their voices and experiences remain largely excluded from any analysis of the intergenerational transmission and acquisition of IEK. There would appear to be no Australian studies examining the contexts, practices or
socialisation underpinning the intergenerational transmission and acquisition of IEK. Indeed, social relations, social institutions, and the social context of contemporary Aboriginal life have been relatively neglected (Peterson 2008, pp. 194–195).

The complex socio-cultural processes in which IEK is embedded have been treated as ‘self-evident’ and ‘simple’ with the result that these processes mostly remain to be properly examined (Davis & Ruddle 2010, p. 885). In Australian anthropology, the issue of cultural reproduction is increasingly identified as an area that needs closer examination.

What kind of culture is being reproduced in Aboriginal communities? One suspects that the teachers and role models are not only, or even mainly, the elders, who are by now sickly and outnumbered. One finds few answers to this question in the literature. (Beckett 2010, p. 43)

The younger generation of Aboriginal people in Australian anthropology have been described as representing ‘the shock of the new’ and precipitating ‘a crisis in the field’ (Langton 2010, p. 112). For Indigenous intellectual Marcia Langton, anthropology remains governed by an attachment to tradition despite the ‘subjects’ changing very quickly (Langton 2010, p. 96). However, there are a small number of Australian anthropologists paying attention to the social and cultural lives of Aboriginal children and adolescents. For instance, Ute Eickelkamp, an anthropologist with a long history of working closely with Anangu people in the lands to the south of Alice Springs, has done much to interrupt the silence on Indigenous childhood and adolescence. The contributions to her edited collection Growing Up in Central Australia (2011) redressed the fact that an international anthropological cross-cultural reader on child development omitted any contributions from Australia. In addition, Inge Kral’s (2012) ethnography on literacy and learning, Talk, Text and Technology – Literacy and Social Practice in a Remote Indigenous Community, is a valuable work on literacy and Aboriginal youth in desert Australia. Kral examines the everyday social life of Ngaanyatjarra (Western Desert) youth in relation to literacy practices to show that, contrary to public and government opinion, remote Aboriginal youth regularly engage in literacy practices and have a desire to learn, only not in institutional environments. Kral describes how young people are ‘strategically arming themselves with the knowledge and tools required for new futures’ (2012, p. 273); but because

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10 I summarise the international literature on intergenerational teaching and learning of IEK in a forthcoming section.
this takes place outside the environments where their agency can be recognised, young people’s knowledge strategies are easily negated. We will find many parallels in how youth IEK is practised and portrayed.

**Youth Research**

As noted, the lack of research regarding youth cultural reproduction in Aboriginal communities is true of youth research in general, and anthropological research in the particular (Eickelkamp 2011, p.4). Understating greatly, Wyn and Harris describe youth research in Australia as an ‘emerging field’ (2004, p. 271). While anthropology has a long history of studying childhood (Montgomery 2009), young adults have received relatively limited attention, and anthropological interest in youth as a social group is also relatively recent (Fietz 2008; Kral 2010; Eickelkamp 2011). As Ute Eickelkamp observes:

... a piece of the cultural history of Aboriginal Australia is missing, and theoretical questions about the perpetuation and transformation of Aboriginal society remain unexplored. (Eickelkamp 2010, p. 147)

In the vast international anthropological literature devoted to hunter-gatherer societies, we again find that little attention has been paid to children, with even less attention to adolescence (Hewlett & Lamb 2005). Hewlett and Lamb observe that the least is known about forager adolescence (2005, p. 18), how forager culture is transmitted (2005, p. 17) or the impact of everyday and changing cultural practices on skill acquisition (2005, p. 18). The international literature that is available on IEK transmission and acquisition likewise relates more to the ‘totality of what children learn than about how they acquire Traditional Ecological Knowledge of specific tasks and skills’ (Johannes 1989, p. x). Put differently, research available on the intergenerational transmission of IEK almost exclusively accounts for *what* children learn but not *how* they learn it or any changes in the actual process of IEK transmission (Johannes 1989; Ross 2002; Cristancho & Vining 2009).

While there are a number of landmark international studies documenting transmission and acquisition of cultural knowledge between the generations (Condon 1987; Greenfield 2004; Cristancho & Vining 2009), this international literature, as with that of Australia, largely fails to study the experience of young adults. An exception is the book by Alice Schlegel and Herbert Barry, *Adolescence: An Anthropological Inquiry* (1991) which contributes important
understandings to the social organisation of youth in pre-industrial societies. Key themes examined by Schlegel and Barry include peer groups, community participation, family life, marriage, sexuality, gender differences and cultural norms. Subsistence technology (1991, pp. 54–56) and work or training for adult skills (1991, pp. 171–175) are sections that relate to intergenerational knowledge acquisition and transmission. As these page spans indicate, the space dedicated to the issue remains slim. And when we turn to the research that does include young adults from remote communities, it often focuses disproportionately on 'singular issues', usually framed in terms of deficits (Wyn & Harris 2004). There have been studies of Indigenous youth ‘at risk’ (Chenhall, Senior, Cole et al. 2010); petrol sniffing (Brady 1992); teenage pregnancy (Burbank 1988; Chenhall et al. 2010); and youth suicide (Robinson 1995; Robinson 1997). The counterpoint to accounts of specific youth pathologies includes recommendations for remedial intervention. Here we find examinations of such things as the beneficial opportunities possible within vocational education and training, if only the emphasis could shift from instrumental concerns about job readiness and work skills toward ideas about positive youth identity formation (Guenther 2010).

A similar schizophrenia frames descriptions of IEK. On the one hand, the adaptive capacity of IEK and its ability to adjust to external change and internal pressures is widely understood (Berkes, Colding & Folke 2000). However, the tendency to analyse change primarily in terms of knowledge decline downplays the dynamic adaptive capacity of IEK and the important role of young people in this ongoing inventiveness (Gomez-Baggethun & Reyes-Garcia 2013). Once again, less attention is paid to the processes that allow Indigenous people to generate, regenerate, transmit and apply knowledge. As a result, while there is widespread understanding of the factors contributing to knowledge decline, the factors and means by which Aboriginal people are regenerating and transmitting knowledge in response to new environmental, social and economic conditions is less well understood.

My focus on the social reproduction of IEK adds to this emergent body of work on Indigenous childhood and adolescence, with a view to shedding light on the socio-cultural transformations specifically shaping the processes of IEK transmission and acquisition, and so doing, helping to move past the deficit framing that dominates both Indigenous and non-Indigenous accounts of what Aboriginal youth are like.
The worry of old people

A focus on youth sits within a wider field of understandings about indigeneity in the Australian nation. Because European contact and settlement occurred relatively recently, Aboriginal traditions are considered stronger in Central Australia than in many other parts of the country. Yet young Aboriginal people living in Alice Springs and Tennant Creek, who have dark skin and/or who speak an Indigenous language fluently, don’t automatically have the attributes of traditional culture. Cultural mores are not an automatic, given ‘thing.’ As Myers observes, ‘we should always have recognized that even supposedly “traditionally-oriented” people didn’t just “have” a culture’ (2005, p. 6), by which he means that cultural knowledge and practice is an ongoing process of active learning, even for remote Aboriginal people.

Senior Aboriginal people in the Northern Territory are acutely aware of changes to learning and are gravely concerned about what they see as the rapid decline of IEK (Johnson, Top End Working Group, Desert Working Group et al. 2006; Bradley 2010), a concern that is shared by Indigenous peoples globally (Johannes 1989; Berkes 2008; Reyes-Garcia, Broesch, Calvet-Mir et al. 2009). The concern of older Aboriginal people is very real: IEK in Central Australia is fragmenting. Aboriginal languages everywhere are under threat, and demographic change, sedentary lifestyles, poor health, alcohol and substance misuse are impacting on the everyday lived experience that contributes to IEK expression and practice (Johnson et al. 2006; Walsh, Dobson & Douglas 2013).

The mourned loss of lifeways and practices felt by older Aboriginal people exists as a profound grief underlining how they view young people and the urgency or futility of hanging onto hope. In a sense, young Indigenous people are growing up in a society of grief. Older people can feel they have no way of fixing the problems they see around them. Dinah Norman, a senior Yanyuwa woman from Borroloola, reflects:

There are times at night when I am sitting quietly by myself and I look at my sleeping grandchildren and I think of all the things that they will never know. They will never see the great and sacred ceremonies or hear the songs of old people. These are things when I am alone I think about and it makes me feel very sad. (Quoted in Bradley 2010, p. xv)
Senior Aboriginal people know exactly what the losses are, but because what they are grieving is not perceptible to Australian society at large, Nancy Turner and colleagues (2008) describe this as an ‘invisible loss’:

The erosion of complex traditional knowledge systems, including the loss of opportunity for intergenerational transmission through indigenous language, stories, ceremonies, observation, and participation, is a very real consequence. Seldom identified or acknowledged, this serves as an example of an invisible loss. (Turner et al. 2008, p. 2)

Senior Aboriginal people in Central Australia have two interrelated concerns: keeping language and culture strong for future generations; and worries about knowledge loss in the current generation of young people. Both concerns are connected and put young Aboriginal adults in a difficult position. Young people are simultaneously deplored for weakening Aboriginal culture while at the same time celebrated for their revitalising role in cultural continuity. In this sense, young Aboriginal adults, like young people around the world, are regarded as both ‘heroes and villains’ (Jones 2009, p. 2).

Globally, young people represent a major symbolic investment of society (McRobbie 1993). In Central Australia, senior Aboriginal people view the younger generation as responsible for carrying culture forward for the benefit of future generations (Turner 1996; Green 2003; Turpin 2003; Dobson 2007). In consequence, senior Aboriginal people feel a moral imperative, individually and collectively, to hand key aspects of their cultural knowledge on to young people (Henderson & Dobson 1994; Turner 1996; Green 2003; Dobson 2007). Myers observes that older Aboriginal people view passing on cultural knowledge as a ‘vital responsibility’, for ‘continuity is a fundamental Aboriginal concern’ (Myers 1991, p. 152 and p. 287). For older people, the motivation and commitment to maintaining cultural knowledge is about acting responsibly (Sherry & Myers 2002).

This commitment and how it is described sits within the tendency for the older generation to moralise about the terrible state of youth, a syndrome of complaint that has taken place since the ‘time of Socrates’ and ‘Shakespeare’ (Jones 2009, p. 2). Maggie Brady writes of older Aboriginal people referencing a ‘mythical golden age’ when ‘young people unquestioningly obeyed the law and listened with respect to their elders’ (Brady 1992, p. 15). The recourse to a mythical past in Central Australia is used both to explain the current learning environment and to exalt and condemn contemporary Aboriginal youth.
This reference to a mythical golden age is found throughout Australia. In Doomadgee (Queensland), David Trigger describes how ‘proper custom and law’ is perceived by the older generation to have come to an end, an ending they load onto the younger generation who are ‘mad’ and cannot ‘hear’ or understand (Trigger 1992, p. 17). This is a common refrain older people make in Alice Springs and Tennant Creek as well: young people, they say, are mad and have no ears.

Baldwin Spencer and Frank Gillen, early ethnographers of Aboriginal life in Central Australia, conducted their fieldwork during 1896 and 1903 (Green 2012). They also documented the dissatisfaction of older Arrernte people with the younger generation, back in the late 1890s. Young people's perceived ‘infidelity to tradition’ saw old people ‘withholding knowledge’ within the first 30 years of Alice Springs’ settlement (Rowse 1998, p. 37).

The old men see with sorrow that the younger ones do not care for the time-honoured traditions of their fathers, and refuse to hand them on to successors who, according to their ideas, are not worthy to be trusted. (Spencer & Gillen 2011 [1927], p. 7)

How the older generation construct their identities in a radically changed world can be partly understood through their discourses on young people, a discourse which shifts individual articulations of accountability elsewhere. Young people are not to be trusted, are mad, have no ears and aren’t interested. It raises the question: what do young people have to say in return? This is the question and gap that this thesis takes up.

**IEK: ‘You might have heard of it but not know what it means’**

While the term ‘Traditional Ecological Knowledge’ and the more recent version ‘Indigenous Ecological Knowledge’ have been used internationally for many decades, the term IEK was only recently introduced to Aboriginal organisations and people in Central Australia. The Central Land Council (CLC) is an Australian Government statutory authority that provides services for the benefit of Aboriginal landowners in the southern half of the Northern Territory. The CLC website has a section on IEK that begins with the statement ‘Indigenous Ecological Knowledge (IEK) is a term you might have heard of but not know what it means’ (Central Land Council 2014).

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12 In 1875 Frank Gillen was an operator on the overland telegraph line in Alice Springs. Baldwin Spencer came to Central Australia on the Horn Scientific Expedition and it was at the end of this expedition (1894) that Spencer and Gillen first met, a meeting that produced ongoing collaboration documenting Arrernte life in Alice Springs (Green 2012).
This reflects a central issue of language and terminology related to IEK. My take on what the CLC is saying is this: *You might have heard of IEK, but you don't recognise this thing we are calling IEK (even though it is about your knowledge) because the term is not something we made for ourselves.*

As the CLC website makes clear, Indigenous Ecological Knowledge is a term new to Aboriginal people in Central Australia. It is also a new term to Indigenous groups globally (Stevenson 1996, p. 280); but it is a term that has traction. Similarly, like the term IEK, ‘intergenerational transmission’ is also a relatively new phrase that is growing in currency and use.

In short, IEK is an introduced concept with contested meanings, which as I will show are not fully commensurate with local Aboriginal representations of the same fields of reference. Despite its limitations and accepting its shortcomings, I make use of the concept ‘IEK.’ In doing so, I conform to the conventions of the academy while simultaneously critiquing the term’s inheritance and use. The issue of translation and finding equivalencies between non-Aboriginal and Aboriginal terms is always a fraught endeavour (Cruikshank 1998). In this middle space between conformity and criticism lies the potential for reconfiguring a contribution to the scholarship on and around IEK. With others, Torres Strait Islander scholar Martin Nakata acknowledges the complexity of engaging with the ‘middle ground’ but nonetheless argues that it is from this centre that the inter-relationship between Indigenous and Western knowledge systems can be understood (Nakata, Nakata, Keech et al. 2012, p. 134).

By using the term IEK I am not attempting to elevate Western terminology above local terms. Rather, IEK is both my subject and object. By critiquing the term IEK, I do not suggest that this term is useless. Constructing and deconstructing takes place all the time in anthropology. Nonetheless, the term IEK is useful and I use it in this thesis as a heuristic device to examine excerpts from the wholeness of a tangible and intangible culture into analytically manageable pieces. As a shorthand for Aboriginal knowledge systems, I also use ‘IEK’ to roam across different language groups without applying one language term in preference to other language groups. In so doing, I aim to show respect to the specificity and authority of each language term without substituting it with another language term. While English is not anyone's original language, or at least, it is felt not to be, I use the English term ‘IEK’ as the alternate way to communicate without disrespect. Although Aboriginal people are often multi-lingual and can

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13 Also see Green's (2012) overview of the complexity in the translation of the Arrernte term *Altyerre* or 'Dreaming.'
understand each other, language usage also has protocols. During my fieldwork, I recall a senior Arrernte woman telling me that, even though she understood and could express herself in Warlpiri, she would never speak this language as doing so would be highly shameful. Warlpiri is not her language to speak. The respect shown to language is the same kind of respect shown to another person’s country, as it is from country that language originates (Turpin 2003). One cannot claim someone else's country, nor can one claim another language by speaking it out of place. Therefore I continue to use the term IEK as it provides the most general context for discussion and analysis.

**Structure of the Thesis**

In this thesis I will show that IEK persists in the lives of young people: IEK continues to be a vital part of youth practice and it is fundamental to youth values. I examine the factors that enable IEK to persevere as well as describe the changes and adaptations to social learning processes. I examine IEK and social and cultural learning as part of a historical process of change, modification and adaptation across the generations.

In Chapter Two I provide the theoretical basis underpinning this research. I use a socio-cultural theory of learning drawn from anthropological, socio-logical and human development perspectives, so that this work is grounded in an examination of family and individual relationships (socialisation), natural resource use in subsistence and cultural activities (practice) and the framework or setting (context) which enables knowledge to be used, practised and shared.

In Chapter Three I discuss questions of methods and methodology and position myself in this research. I unpack what it means to carry out same-culture ethnography and show that along with many positives, there are also hidden challenges. A priority was selecting youth-friendly methods and I overview how young people influenced the methods used.

Following on from these first three chapters, I present key findings from this research in chapter's four to seven. Chapter Four details IEK in young lives, focusing on the practice and processes that allow knowledge to be reproduced and generated.

Chapter Five examines the socialisation of learning, key relationships and responses to changing demographics. We learn that the de-coupling of age and generational roles has influenced the
creation of a new social category – the ‘helping white’ (Lea 2008, pp. 3–20) – along with the increasing role of grandmothers and the peer group. I use the word ‘white’ to signify power disparities and interrogate power relations; used in this way ‘white’ is much more than race and skin colour (Hartigan 2005; Kowal 2011).14

In Chapter Six I discuss the role of organisations and helping whites in transforming IEK learning processes, arguing that with the omnipresence of institutional modes of ordering the social world, Aboriginal people have co-opted professional support to make IEK happen.

This is not without its frustrations, and in Chapter Seven we learn that one consequence of an institutionalised social order is a radical condensation of IEK learning opportunities. People must cram opportunities for being on country with relevant kin into smaller windows of time, correlating with school holidays and the timetables of pay-days and, as a result, a more structured Western pedagogical teaching approach has crept into Aboriginal IEK transactions. I show the intensity of modern learning and teaching of IEK is a response to the many upheavals and changes to Aboriginal people’s lives; conditions that have shaped a new and necessary pedagogical approach. I show that with expediency comes compromise: just as they enable the reproduction of IEK, the new enforced learning patterns also create disappointments and contribute to unmet expectations.

Chapter Eight, my concluding chapter, synthesises three meta-themes that encapsulate the key findings of my research: IEK and identity; the contemporary expression of IEK as part of an evolving knowledge system which includes organisations and helping whites; and the resilience and adaptability of Aboriginal social systems and related IEK practices.

In summary, this thesis seeks to go beyond general characterisations of IEK in relationship to environmental concerns, developmental theories and the nexus between Indigenous and Western or scientific knowledge. I focus on the people whose everyday lived experience, adapted and modified within each generation, constitutes IEK. I look at how IEK is made to happen.

14 As later chapters will show, ‘whiteness’ is also used as a reflection of the power structures through which cultural dominance is naturalised, reproduced and maintained (Frankenberg 1993).
In seeking to understand how social practices around the acquisition and transmission of IEK have been adapted and modified to suit contemporary realities, I approach learning IEK as a social and cultural process that is historically situated, context specific and practice based (Vygotsky 1978; Lave & Wenger 1991; Rogoff 2003). Essentially, I take the point of view that social relationships and social processes determine the values, beliefs and practices constitutive of IEK. From this premise, a socio-cultural perspective informs the theoretical basis of this research.

Understanding the place of young Aboriginal people in complex and changing times is a conceptually difficult task that requires more than one disciplinary perspective (Robinson 2012). Socio-cultural approaches have been influenced and have had contributions from a diverse disciplinary base, including anthropology, cognitive and social psychology, sociology, educational theory and linguistics. A socio-cultural approach represents the nexus between these disciplinary traditions and blurs ‘cognitive, affective, and social processes’ (Rogoff 1990, p. 9). Socio-cultural theorists maintain that learning is situated, influenced by historical processes and occurs through participation in the social world where the learner is assisted by more experienced and knowledgeable adults and peers (Ochs 1988; Schieffelin 1990; Lave & Wenger 1991; Rogoff, Paradise, Arauz et al. 2003).

As it is applied here, this theoretical approach represents the learning environments of young people, which I characterise as the nexus between relationships with key family members, emotional investment and environmental relationships.
Relations to land, plants, animals and other elements are firstly shaped by people's relations to each other (Turner et al. 2000). In their treatise on the sociology of knowledge, Berger and Luckmann observe 'all human “knowledge” is developed, transmitted and maintained in social situations' (1966, p. 3). It follows that young people's experience of IEK and how it is acquired and transmitted cannot be understood unless it is placed in a historical and socio-cultural context, in which interpersonal relations are also held within the frame. In Central Australia, despite violent upheavals and disruptions, Aboriginal social systems and concepts of relatedness have endured. Of course, they have also radically modified. I will show that the resilience of Aboriginal social systems and processes have been a protective factor in sustaining IEK while at the same time facilitating innovation.

It is the great achievement of Aboriginal culture that individual autonomy and creativity sit within an ontological framework of permanence and conservatism (Myers 1986). Framed by a recourse to the Law (the Dreaming), this conservative veneer facilitates processes of personal agency, interpretation and negotiation (Myers 1986; Weiner 1992; Morphy 1996). It does this by enabling individual actions, interpretations of daily life and events to be comfortably reconciled to the origins or genesis of Aboriginal society, the Dreaming. On one youth camp, we woke to unexpected dark skies and the smell of distant but approaching rain. The Eastern Arrernte women, young and old, recalled the previous night's events. They said the singing of the senior women and the dancing of the younger women had influenced this unexpected change in weather. The women managed to celebrate their own activity on country while still knowing that ‘rain making’ sits within the male ritual domain, an ability attached to the male descendants of the male rain spirit ancestor (Bradley 2001, p. 303–304; Alyawarr speakers, Walsh & Douglas 2009, p. 13). The way the women negotiated the meaning of their actions is key to intergenerational transmission of knowledge; that is, their ability to generate, transform, transmit, and apply knowledge (cf. Gomez-Baggethun & Reyes-Garcia 2013). The power of individual and collective actions in connection to the sentience of country was affirmed between the generations that morning as they exuberantly acknowledged each other and recalled the events from the previous night.

15 The Arrernte word for Dreaming is Altyerre and the Warumungu word is Wirnkarra. The Western Desert Jukurrpa or Tjukurrpa is also widely used in Central Australia. An excellent summary of the consequences of poor interpretations/translations of Altyerre is provided by Jennifer Green (2012). For an overview of the historical use of ‘Dreaming’ throughout Australia see Morphy (1996), Swain (1989) and Wolfe (1991). I will use Dreaming in a general context unless specifically referring to an Arrernte or Warumungu setting where I will use Altyerre or Wirnkarra.
It is however widely acknowledged that social change is a key driver behind the loss of ethno-ecological and socio-cultural beliefs and practices (Florey 2001). Profound socio-cultural change has contributed to a steady decline of ecological knowledge across the generations in Central Australia. However, while my material adds to this account of alteration, I am as much if not more interested in the regularities and patterns that continue in social systems that reproduce IEK practices, beliefs and values. Young people in this research have consistently identified family as being their most important concern (see Figure 4). It is their constant refrain to kin, to family and to social relationships that embeds the core themes of IEK in young people’s lives. As later chapters will show, when young people source plant foods and medicines, they will also acknowledge which family members told them about the plant, where to find it and how to properly harvest and prepare it. When young men go through rites of passage to achieve adult status they do so in relationship to older kinsfolk. When young mothers take their newborns to be smoked (where a baby is passed through the smoke of the utnerrenge (emu bush, Erempholia longifolia) to ensure they grow strong and healthy), or have their infants attended to by angangkere (traditional healers), they are participating in IEK social practices.16 Such practices are simultaneously contemporary and ancient.

Fred Myers, commenting on Pintupi understandings of historical processes, notes that ‘(f)or the Pintupi, the dynamic, processual aspect of history seems to exist as one of covering, uncovering, or even re-enacting elements of the Dreaming,’ and thus experience ‘appears to be continuous and permanent ’ (Myers 1991, p. 52). The paradox is that this continuous and permanent sense of the Dreaming is upheld in states of continuous and permanent flux. The story of IEK and young adults is a continuum-of-change narrative influenced by colonisation, discriminatory and exclusionary policy, and Aboriginal agency, adaptations and modifications. The story of IEK does not start with this current generation of young people; it has been a process of change over time and space. We can start to understand this apparent paradox through Appadurai (1996), who observes that the break between the past and present or between tradition and modernity is often viewed as a single event or the ‘modern moment.’ In his words: ‘All major social forces have precursors, precedents, analogs, and sources in the past’ (Appadurai 1996, p. 2). The transition from a hunter-gatherer society to so-called modernity is, to some extent,

16 Angangkere is the Eastern Arrernte spelling (Dobson 2007); the Pitjantjatjara spelling ngangkari is also commonly used.
Figure 4. This is indicative of the importance young Arrernte people place on family. Jesse McCormack, an eighteen-year-old student of Batchelor Institute of Indigenous Tertiary Education has embellished a drawing with ‘Family First #1’ and other motifs. A lecturer at Batchelor Institute of Indigenous Tertiary Education, Sia Cox, created the original drawing (inset).
unfinished business for Aboriginal people in Central Australia because there is no definitive end point. Not only is modernity a moving goal post, but cultural adaptation remains an iterative process in which Aboriginal people are simultaneously cultural consumers, producers and innovators. Adopting these theoretical approaches allows young people to be understood as they are in time as opposed to viewing them as ‘the generation’ who rejected or destroyed culture. IEK cannot exist outside of social relations – and social relationships themselves vary in time and space (Gell 1998; Viveiros de Castro 2013).

Anthony Giddens’s structuration theory offers additional guides to understanding the ‘ongoingness’ of cultural traditions in situations of rapid change, without attributing this to inflexibility or conceptualisations of static time. Before Appadurai, Giddens also advocated incorporating ‘place, time and space’ into understanding social change, calling for an emphasis on practice as being foundational to social life (Giddens 1979). Pointing to the ‘recursiveness of social life, as constituted in social practices’ Giddens directed attention to daily social practices and interactions which are so deeply habituated that they are conducted unreflexively (1979, p. 5). People automatically draw upon conventions in even the simplest of social relations, influencing others to do the same through mimetic transactions. In this way, Aboriginal people’s more apparent social conventions even get mimicked by non-Aboriginal people, to the point where in Alice Springs they have adopted many of the gestures and phrasings from the Aboriginal people they are amidst. The ‘recursiveness of social life’ also means that, in Central Australia, the social reproduction of IEK is enacted within an inter-cultural space and now includes organisations and non-Aboriginal staff (Chapter Six).

How young people take up, transform and replicate socio-cultural traditions is an important starting point for understanding the transmission of IEK. The work of Russian psychologist Lev Vygotsky (1978) is foundational to this point of view. Vygotsky was among the first to call attention to the role of history in child development and laid the theoretical groundwork for socio-cultural, situated and practice-based approaches to explanations of learning (LeVine & New 2008). Arguing that learning could not be separated from its social and cultural-historical context, Vygotsky’s theoretical approach was premised on learning embedded in social processes and mediated by various cultural tools and artefacts, from rooms and furniture to pen and paper (Goffman 1981; Rogoff 1990). Vygotsky emphasised socially mediated
learning and introduced the concept of 'zone of proximal development' in which learners are mentored, through interactions with more experienced adults or peers, to work beyond the 'zone' in which they are performing at alone or where social expectations of their capabilities might leave them (Vygotsky 1978). A criticism of Vygotsky's cultural-historical approach is that it reduced cultural differences to historical differences (Wertsch 1991). However, many socio-cultural scholars have expanded on his legacy. Complementing Vygotsky's framework are theories concerned with situated learning and legitimate peripheral participation (Lave & Wenger 1991), communities of practice (Wenger 1998) and guided participation (Rogoff 1990).

While it is not my main concern in this thesis, I have paid attention to pedagogical reforms which deploy Vygotskian frameworks to help overcome deficit-based approaches in Indigenous school-based education (see for instance Gray 2007). As part of this thesis, I have closely witnessed how young people learn from each other and how they coax older people into teaching them. I have also looked at the vernacular pedagogies executed by older people in their interactions with younger people, and the mismatch in expectations. An impasse exists between older people who expect younger people to simply 'know' through osmotic processes some of their key conventions, in a Giddens-style system where socio-cultural reproduction is as much transacted through tacit practices as it is through explicit instructions. But because of the rapid socio-economic changes that have impacted everything from the accessibility of country to the duration of face-to-face intergenerational encounters, the conditions for 'recursivity' are greatly altered. Vygotsky's work assists in understanding how learners and mentors navigate this impasse (a different way of describing the zone of proximal development), to move closer to what they have the potential to know.

Unpacking this requires close attention to people's practices as well as what they have to say. By drawing on anthropological understandings of practice, I seek to understand the 'configuration of cultural forms, social relations, and historical processes that move people to act in [certain] ways' (Ortner 1989, p. 12). Ortner observed in the early 1980s that practice is the 'new key symbol' from which theoretical orientations and methods are being developed in anthropology (Ortner 1984, p. 127). Practice is defined as actions or what people do. And what people do is always situated and context specific (Miller & Goodnow 1995). Adding to the complications of interpretation and temporality, for Indigenous people in Central Australia 'practices' were not
invented by humans, for both people and practices are part of a ‘single, unchanging, timeless source’ – the Dreaming (Myers 1991, p. 52).

A key figure within anthropological descriptions of practice is Pierre Bourdieu (1977; 1990) whose concept of ‘habitus’ is drawn upon to reflect on social reproduction. Habitus is a theoretical take on how culture comes to be experienced as ‘second nature’: the way people think, feel and act and what they do (Bourdieu 1990, pp. 31 and 56). The story of IEK and its contemporary expression is a story that moves backward and forward in time. This relationship between the past and the present is how Bourdieu conceives habitus: habitus is a product of history. The geographer Cindy Katz’s ethnographic study, *Growing up Global: Economic Restructuring and Children’s Everyday Lives* (2004), focuses on Sudanese children and their acquisition and use of environmental knowledge. Katz argues that Bourdieu’s notion of habitus offers a ‘useful, if a bit creaky, framework for examining environmental learning’ (2004, p. 110). Through familial, institutional and more ‘diffuse’ educational exposures, people internalise an otherwise arbitrary repertoire of behaviours and associated understandings from ‘masters’ of practice so that, long after particular pedagogical moments have passed, imbibers are still conducting themselves in the ways they have learnt to. This habituation, or habitus, is what makes cultural practices durable. Katz’s idea that habitus is a ‘useful but creaky’ framework is also relevant. She makes the point that while households, schools and other institutions serve as conservatories of inherited tradition, as Bourdieu would have it, they are also ‘the resilient interface between old ways of knowing . . . and ongoing scrappy attempts to make survivable everyday lives and liveable futures for their members and community’ (Katz 2004, p. 111). ‘Ongoing scrappy attempts’ as a form of cultural endurance perfectly captures the intergenerational transmission of IEK under settler colonialism in Central Australia today.

As traditional society has changed so much, so too have the associated socialisation and learning processes necessary for IEK acquisition and learning (Gadgil, Rao, Utkarsh et al. 2000). Barbara Rogoff (1990, 2003) and Patricia Marks Greenfield (1984, 2004, 2009) are two theorists who have extended Vygotsky’s theoretical basis and who have greatly influenced the theoretical orientation of this work. Rogoff (1990, 2003) has contributed to understandings of intergenerational cultural apprenticeship and guided participation, showing the learning processes by which cultural skills are transmitted from an older more experienced expert to
a younger less experienced novice. Her work shows that learning or human development is a cultural process; children and adolescents are part of cultural communities. Along with peers and older members of their cultural communities, children and youth engage in adult or child-specific activities and practices, building on practices of prior generations.

Where Barbara Rogoff’s theoretical approach to learning is relevant to this work as it accounts for individual learning as a cultural process embedded in social practice through historical and biographical time, Greenfield's (2009) theory of social change and human development shows how changing socio-demographic ecologies alter cultural values and learning environments and transform developmental pathways. Describing the acquisition of weaving skills by children and young adults in Chiapas, Mexico, Greenfield observes 'two scales of development: change within a lifetime and change across succeeding generations' (2009, p. 401). She asserts that it is not only cultures that change over historical time; the processes of cultural learning and cultural transmission also change. This change alters when cultures are in a ‘more stable state, compared to when they are in a more dynamic state’ (Greenfield 2004, p. 39). Greenfield's theoretical approach is pertinent to this research, especially her emphasis on the transformations that take place within cultural values and developmental patterns as socio-demographic conditions alter (Greenfield 2009, p. 401). Considered in response to urbanisation, formal schooling, changed economics and new technologies, for instance, we can see how Indigenous people in Central Australia are transmitting IEK under radically altered circumstances – even without the incursions of dispossession and racialised policies.

An important point of socio-cultural theory is the ability to conceptualise culture in terms of practices as opposed to using race as a way of explaining human development and learning (Lave & Wenger 1991). There is general agreement in the literature that:

- culture includes the symbols, stories, rituals, tools, shared values and norms of participation that people use to act, consider, communicate, assess and understand both their daily lives and the images for the future. (Feder, Shouse, Lewenstein et al. 2009, p. 210)

However, what matters for the purpose of this research extends beyond arguments surrounding definitions of culture, a notoriously difficult terrain, or the ‘ambiguities’ of culture (Brice Heath & Street 2008, p. 7–10). In the words of Barbara Rogoff:

17 Appadurai (1996, p. 12) notes, 'Culture as a noun implies that culture is a physical thing, an object, culture as a noun conceals more than it reveals.'
cultural processes and cultural processes contribute to the creation of people. (Rogoff 2003, p. 51, original emphasis)

Cultural transmission is characterised as ‘the process of social reproduction in which a culture’s technology, knowledge, behaviours, language, and beliefs are communicated and acquired’ (Reyes-Garcia et al. 2009, p. 274). It is widely accepted that culture is not static; rather, it is transformed and modified by successive generations, ‘using and adapting material and symbolic tools provided by predecessors and in the process creating new ones’ (Rogoff 2003, p. 51). When such dynamic concepts are applied to learning, more porous ideas about the dynamics of ‘habitus’ emerge. For instance, Jean Lave and Etienne Wenger maintain that learning is not about ‘receiving’ a body of factual knowledge (Lave & Wenger 1991, p. 33):

Culture is something to be produced, to be struggled over, not to be received sacramentally like ordination. Moreover, cultural forms are not like empty school hallways, to be occupied anew by each generation. They are dialectically generated in practice.

How young people are socialised into Local Knowledge systems cannot be properly understood unless attention is given to the dynamics of practice and context. Malinowski’s *The Problem of Meaning in Primitive Languages* (1923) first introduced the notion of ‘context’ to understanding linguistic and socio-cultural frameworks. Malinowski’s ethnographic work with Trobriand Islanders made examining ‘context’, ‘language’ and ‘culture’ a standard practice (LeVine & New 2008). Context is understood as the ‘frame’ or the ‘setting’ in which practice or activities are embedded (Goffman 1974). Duranti and Goodwin describe context as involving two entities: a ‘focal event’ and ‘the setting within which the event is embedded’ (1992, p. 3). In this research I show that the context of IEK reproduction and regeneration is either family based (Chapters Four and Five) or within the setting of organisations (state-based, non-government, for profit and community-controlled) (Chapter Six). Hunting is the main context for families going out bush. Families go hunting in a mix of generations and ages. Hunting is based on men going out for large game and women going out for plants, vegetable foods and smaller game. Organisations have been strategically incorporated into Aboriginal people’s lives to provide new ways of knowledge transmission: they are now zones of production and exchange with Aboriginal people influencing IEK social processes and practices (cf. Merlan 1998). Organisations are involved in intergenerational learning across different areas: arts,
social enterprise, land management, health and youth services. While I show the resilience of IEK, at the same time I overview some of the institutional dependencies that IEK is now enmeshed within.

**Theorising Indigenous Ecological Knowledge**

The theoretical approach to IEK within the scientific literature can be broadly summarised as being a ‘knowledge-practice-belief’ framework (Berkes 2008, pp. 16–18, see also Toledo 2002, Olsson et al. 2004, p. 76, Turner et al. 2000, p. 1276, Huntington 1998, pp. 237–238). The study of IEK has its disciplinary roots in anthropology and the biological sciences, specifically ecology and, later, cultural ecology (Zent 2009a, pp. 19–67 for an historical overview of disciplinary approaches to Indigenous Knowledge). From anthropology came empirical studies of the social, cultural and economic practices, knowledge and beliefs of traditional societies. While anthropology has been at the forefront of studying traditional Indigenous lifeworlds, early anthropology had little interest in the wider environmental context and as a result attention to ‘ecological’ aspects of traditional societies was limited (Anderson 1988; Dahl 1989; Berkes 2008). Across the disciplines that focused on traditional cultures, ecology or the environment, there is a combined 70-year history of documenting the worldviews and ways of living within an environmental context (Davis & Ruddle 2010, p. 883). However, despite this long history, scientists are regarded as only beginning to pay serious attention to IEK in the 1980s as a result of its connection with sustainable development and environmental conservation (Posey 1999). Since the late 1980s another critical shift has occurred. A cross-disciplinary approach emerged as a way of understanding ecosystems, resource management and conservation as a way of straddling biological, linguistic and social issues (Maffi 2001b; Zent 2009b).

The explosion of interest across academic disciplines means that IEK is now being applied and documented more than ever before (Berkes 2008, p. 271). Socio-cultural and linguistic knowledge are seen as being interdependent and embedded within relationships to country, resources and each other (Ochs 1985; Maffi 2001a). Ecologists are using social sciences to view and interpret IEK in its social context and there are more ‘ecologically sensitive social scientists’ (Johannes 1989, p. 6). The scientific literature now more often accepts that IEK cannot be
separated from ‘its human agents and from the situations in which it is produced, reproduced and transformed’ (Ellen, Parkes & Bicker 2000, p. 25).

**Defining and characterising Indigenous Ecological Knowledge**

It is widely acknowledged that there is no universally accepted definition of IEK; the most cited definition in the research literature is by Fikret Berkes and reads as follows (Davis & Ruddle 2010, p. 884):

> 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 the environment. (Berkes et al. 2000, p. 1252)

The Berkes definition has almost become the universal definition due its widespread use. Davis and Ruddle make the obvious yet important point that 'IEK/LEK/TEK means different things to different people’ (Davis & Ruddle 2010, p. 884). Reflecting the challenge of defining IEK, a variety of terminologies and definitions have been used to characterise Indigenous Ecological Knowledge (IEK), including Traditional Ecological Knowledge (TEK), Traditional Knowledge (TK), Indigenous Knowledge (IK), Local Knowledge (LK), Local Ecological Knowledge (LEK) and Indigenous Technical Knowledge (ITK). All of these terms are often used synonymously and interchangeably and are viewed as a subset of a wider Indigenous Knowledge system (Davis & Ruddle 2010). Within these definitions and characterisations there is now enough overlap between meanings to recognise a shared ‘epistemic community’ (Ellen et al. 2000, p. 2). My contribution to the list of meanings and abbreviations is that IEK could also stand for ‘Indigenous everything knowledge’ as it is ‘everything’ within a culture that connects to ecological understandings, beliefs and practices.

It is recognised that IEK is a Western concept to categorise forms of Indigenous Knowledge (Cruikshank 1998; Holm 2003; Briggs & Sharp 2004; Barnhardt & Kawagley 2005). As I briefly hinted, for all its problems, like the use of English more generally, the term IEK does facilitate common understandings about Indigenous people and their relationship to the environment and with each other. IEK has reached the point where it can travel by its abbreviation and still be recognised. The risk in this unmooring is that IEK is invoked as a term that few will contest, given its comprehensive and elastic definition. Yet, as Ruddle and Davis (2010) also caution, a definitional approach to IEK narrows understandings to stewardship of the environment.

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which leaves out the broader socio-cultural frameworks in which IEK is embedded. In Central Australia, kinship and language are fundamental to how Aboriginal people understand human and environmental relatedness. Yet, if we accept standard ways of talking about IEK, kinship and language are viewed as belonging to an Indigenous Knowledge system, of which Indigenous Ecological Knowledge is seen as a subset (Berkes 2008). The act of categorising creates arbitrary divisions that are not real in practice.

The term IEK co-opts Indigenous lifeworlds into non-Indigenous frameworks that are fundamentally different to Aboriginal ways of thinking so there is no English translation that perfectly reflects Aboriginal understanding. Consequently, the term IEK can mask cultural disagreements and restrict and narrow discourse (cf. Cruikshank 1998). Indigenous Knowledge systems are forever being compared and contrasted with Western scientific epistemological paradigms (Stephenson & Moller 2009, pp. 140–141). Without doubt, this is a valuable comparison, as it attempts to recognise previously discounted forms of knowledge, but there needs to be space for IEK to be treated as a discrete and valuable knowledge system in its own right and on its own terms. There is a problematic tendency to view IEK as a subject of ‘Science’ (here capitalised to indicate its iconic, if misunderstood, status as exalted knowledge). Science is assumed to have a privileged relation to truth (Christie 2008). As a result, Science is the reference point from which IEK is comparatively defined and from which its value is determined. The value of IEK is determined by how its ‘content’ can be extracted and applied to scientific interests and how comfortably it fits with the ‘methodological frameworks that scientists and environmental managers employ’ (Muir, Rose & Sullivan 2010, p. 260, see also Goodall 2008). IEK is treated as if it is a static archive from which isolated didacticisms can be extracted. When IEK is externally defined, some aspects of IEK are considered important while other features are excluded. Significantly, the social aspects of IEK are largely ignored or viewed as irrelevant (Fairhead & Leach 1994). Muir et al. (2010, p. 259) make the point about how ‘white fellas’ have separated the social from the ecological, contending that ‘the importance of social relationships in ecological relationships has been overlooked’.

In Australia, there is now greater appreciation of the potential of IEK to complement biodiversity conservation, land management, protected area management, and water resource

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18 I acknowledge that Science is immensely more complicated than this stereotype; there are vast bodies of critique which show ‘science’ to be neither singular nor simple (Kuhn 1970; Garber & Weinstein 1987; Haraway 1989; Chalmers 1999).
Today, descriptions of IEK in the Australian resource management literature abound. They include resource use and management (Horstman & Wightman 2001); water resource management (Jackson, Finn, Woodward et al. 2011); application and complementarities with science (Baker & Mutitjulu Community 1992; Ens et al. 2012; Muller 2012); information on plants and animals (Latz 1995; Telfer & Garde 2006; Clarke 2007); syntheses (Walsh et al. 2013) and critiques (Wohling 2009); intellectual property (Williams 1998; Janke 2009); sustainable development (Gorman, Griffiths & Whitehead 2006; Fordham, Fogarty, Corey et al. 2010); seasonal knowledge (Prober, O’Connor & Walsh 2011; Woodward, Jackson, Finn et al. 2012); use of fire in landscape management (Bliege Bird, Bird, Codding et al. 2008; Edwards, Allan, Brock et al. 2008); subsistence (Bliege Bird et al. 2008; Walsh & Douglas 2009); the crisis of IEK loss (Johnson et al. 2006); customary marine tenure (Peterson & Rigsby 1998); and protected areas (Brickhead, De Lacy & Smith 1992). Work around IEK has also included archiving and repatriation of documented knowledge (Holcombe 2009) and legal protection measures (Davis 2009; Janke 2009).

IEK is rightly valued for its contribution to economic livelihoods and development, natural resource management, biodiversity and conservation, but seldom for how it might contribute to the resilience of Aboriginal people and their survival post the colonial encounter and within the context of continuing settler colonisation.

**Indigenous theories of knowledge**

The theoretical approach of this study, a socio-cultural theory of learning, reflects Aboriginal ways of understanding knowledge: it is social and practice based; knowledge is not separate from practice. That is, IEK is not a static cognitive index of this and that type of fact to be formally learnt by rote, but is socially manifested and occurs in relationship to others (human and non-human). This approach is premised on multiple interpretations of reality, which fits with Indigenous theories of knowledge.

Basil Sansom (2001) provides an excellent summary of Aboriginal ways of knowing and I draw on his work to discuss the epistemological and ontological basis of Indigenous Knowledge. Beth Povinelli in *Labor’s Lot* succinctly notes that Aboriginal people have an *(e)pistemological*
stance towards the natural world’ (Povinelli 1993, p. 295); that is, Aboriginal reality has a spiritual basis. However, this reality does not sit in isolation from human agency. Reality cannot be known without the people dimension as it is through human social relationships that reality is revealed. For example, ‘The information visible in the landscape is not sufficient in itself to illuminate the underlying reality’ of it (Myers 1991, p. 67; quoted in Sansom 2001, p. 2). Reality is revealed through ‘the gift of words uttered by a local custodian who identifies the sacred in the landscape’ (Sansom 2001, p. 2). Sansom further notes that there is one reality, but this reality has an ‘inside’ and ‘outside’ truth. This duality of ‘inside’ and ‘outside’ is summarised by Nancy Williams:

> Everything, it is assumed, stands for something else – at least to some people in some place at some time – whether or not particular individuals at a particular time or in a particular context may ever know the further significance. (Williams 1986, p. 48 quoted in; Povinelli 1993, p. 295)

For Sansom, Aboriginal epistemology is gnostic (2001). The spiritual (the Dreaming) and people (the social) are co-present in one world (one reality) and knowledge is ‘the great modifying force’ (Sansom 2001, p. 3). ‘Dreamings thus preside over the three moments that are the creation, the maintenance and the transformation of the conditions for being in the world’ (Sansom 2001, p. 2). The social and experiential are intertwined and interdependent and differentiate between inside and outside knowledge. Significantly, social relationships and practice are at the centre of how knowledge is transmitted, understood, interpreted, evidenced and acquired. Hearing, telling rightfully, demonstrating and bodily experiencing are at the heart of knowledge transmission and acquisition. The story gets refreshed and replenished as it is transmitted, retaining its vitality by being brought to life through narrative flair and annexure to experience (Povinelli 1993).

Putting Indigenous and non-Indigenous modes of knowledge together is more than a question of translation. Aboriginal knowledge systems represent a way of life with theoretical, spiritual and practical components. Human agency, social relationships and social construction means ontological understandings are continually in the making (Merlan 1998). But here is the snag. In Australia, the ontological, epistemological and methodological framework of Indigenous Knowledge is represented using English terms and concepts. For millennia, Aboriginal people in Central Australia have had their own ways, words and concepts to describe and demonstrate
embodied Local Knowledge. Some of this knowledge is now known as IEK. In Central
Australia, there are locally developed conceptual frameworks which also depict IEK. Senior
Arrernte women, MK Turner and Veronica Dobson, have portrayed Arrernte knowledge
frameworks. MK Turner’s ‘Everything comes from the land’ poster (Turner 2005) and Veronica
Dobson’s Anpernirrentye framework (Dobson & Walsh 2008) show the connectedness and
interrelationships between people, resource species, land, language and spiritual domains (see
Figures 5 and 6). The Anpernirrentye framework depicts three core domains as representing
an Arrernte knowledge system or Arrernte ways of knowing: they are Altyerre (Creation
Time or Dreaming), Apmere (Country) and Tyerrtye (People) (Walsh et al. 2013). These
three inter-connected meta-themes form the foundations for Arrernte ways of knowing:
Aboriginal people’s assumptions about the nature of reality (ontology); ways of knowing that
reality (epistemology); and the formation and nature of an Arrernte value system (axiologies).
Conceptually, the ‘Everything comes from the land’ and Anpernirrentye framework align with
a schematic model articulated by a neighbouring but distinct desert group. The Ngurra-kurlu
framework depicts Warlpiri ecological knowledge and values embodied in it include ‘Country’,

Similar conceptual models have also been developed elsewhere in Australia (Grant 1998).
Conceptual models of IEK from desert Australia embed people, relationships and practices.
Similarly, Aboriginal people in British Columbia, Canada, integrate the secular with the
spiritual, both past and present (Turner et al. 2000, p. 1279). People, animals, plants and
ancestral spirits have interactive and reciprocal relationships that are mutually inclusive rather
than distinct and separate from each other (Turner et al. 2000, p. 1279).

Of the three domains characterising an Arrernte knowledge framework, the Altyerre (or
Dreaming) is a comparatively more invisible and less readily understood component of IEK. For
mainstream natural scientists and ecologists, the Altyerre is an obscure cultural complex with
seemingly little contemporary practical relevance to the environment (Holmes 2010, p. 294). The
unspoken belief is that the Altyerre is only relevant to a distant classical past that has limited if any
relationship to either contemporary life or contemporary use of IEK, such as in Aboriginal land
management (Bradley 2001, pp. 295–307). As such, the continuing importance of the Altyerre as
a fundamental principle of IEK is easily dismissed because it is regarded as arcane knowledge that
Figure 5. The Anpernirrentye framework is a diagrammatic interpretation of an Arrernte Ecological Knowledge system. The Anpernirrentye concept emphasises the inter-relatedness between people, country, animal and plant species and other elements.

Figure 6. This poster was conceptualised by senior Arrernte woman, MK Turner. It represents the holistic and complex nature of the relationships between elements in an Arrernte cosmos.
doesn’t fit within Western knowledge frameworks (Bradley 2001, pp. 295–307). The interactivity that Sansom, Myers, Povinelli and many other anthropologists have documented is somehow relegated to the past, in turn affecting how young people are made invisible.

**Desert life and learning**

A universal practice common to cultures throughout the world is the transmission of social skills and cultural knowledge to the young (Ochs 1985; Rogoff et al. 2003). Children and young adults learnt through daily participation, observation and experience, acquiring practical and theoretical knowledge in both explicit and osmotic ways, learning what we would now categorise as ecological and related cultural information, such as rights and responsibilities to country through the kinship system, stories, songs and ceremonies, and through mundane everyday routines and transactions. Traditionally, learning was based on ‘observation and imitation’ (Tonkinson 1974, p. 102) as well as forms of didacticism, when people were told what to do and what not to do under threat of violent and/or supernatural sanctions. In the olden times, the mundane routines of daily life meant that knowledge and cultural transmission was also an everyday occurrence (Lowe 2007, p. 37). Young people acquired what Bourdieu would term their ‘habitus’ in the context of their everyday life, from the moment of birth on. Senior Arrernte woman Tara explains this as:

> Well, when they are babies they are carried around, sometimes up on the shoulders. They would watch as the others would dig soakages. They’ll see how the water comes into the well and how it clears ready for drinking and how the soakage is covered up again to protect it from animals. Kangaroos might suck on the damp earth of the soakage. Other times the girls would be taken out to dig for witchetty grubs. The older women would show them the irrarle, the empty cocoon. When they see the irrarle they will know that there must be a crack in the ground nearby where the roots of the witchetty bush have swollen because there is a grub inside and that is where they’ll dig. The women would teach the girls to eat the grub straight away or bust it open and use the fluid to put on sores. The old people would eat them raw, which is better, but sometimes they would take them back to camp to cook. They’d show them different sorts of grubs such as from the river gum, which has to be chopped out. They knew which grass to use as a hook to pull out the grubs. Other times they would take the girls hunting for goannas. They will show them the tracks and signs for the goannas and the same for the other lizards like the bearded dragon and for carpet snakes and perentie. They would teach them about all the things in the bush."19

19 Interviewed 16 March 2012.
From infancy, children were encouraged to be self-sufficient through active and independent use of local resources (Devitt 1994; Bird & Bleige Bird 2005; Eickelkamp 2008). The boundaries between ‘play’ and ‘work’ were seamless and underscored contexts for knowledge acquisition: play was ‘workful’ and work was ‘playful’ (Hewlett & Lamb 2005). Games reflected the everyday life of children, much like the industrial-domestic toys and games of Western households do today. Instead of miniature tea sets and toy trucks, girls in their humpies would play at cooking and preparing animal meats or grinding seeds for pretend seed cakes, while boys would tear off with their small spears to stab lizards or spear imaginary larger game like kangaroo (Turpin 2003, p. 58; Kral 2007, p. 197) (see Photos 1 and 2). Then, as older children, children of both genders would go off hunting independently (Devitt 1994; Rubuntja & Green 2002, pp. 35–54). Playing was a way of imitating life situations and social roles (Eickelkamp 2008). For instance, one game I observed being played by a group of boys was what an 11-year-old at East Camp told me was the ‘bush camp’ game. The game involved a posse of boys ‘capturing’ a boy and, having surrounded him and forced his surrender, they playfully jostled him along with pretend force in the direction of their imaginary ‘bush camp’. This game was imitating male rites of passage, both ancient and contemporary, which still had clear relevance in the lives of these young boys.

The dynamic nature of IEK is a co-existence of social practices (present action) and past matter (recourse to the Law or Dreaming with individual agency and meaning-making). The IEK expressed by young people today is made up of present action suffused with the provenance of prior generations (Wertsch 1985). IEK is not the sum of habits, meanings and practices located in one person or in the environment, but a potentiality that is realised and experienced in the course of social interactions with human and non-human others.

Changes in material culture and technology are sometimes misinterpreted as signs of inauthenticity or diminution of traditional practices. I see them instead as providing an overview to cultural change and adaptation. Men now hunt using vehicles and guns to travel further afield for game, a necessity borne out of changed traditional burning regimes and the loss of lands (Bird, Bliege Bird & Parker 2005, pp. 443–464); women use milk tins and steel crowbars for digging honeyants, bush potatoes and goannas instead of digging sticks and coolamons (a shallow vessel carved from hardwood). But the impulse to hunt remains
alive. Goodall observes the enduring ‘intense sense of affiliation with country’ and Aboriginal people’s ‘abilities to develop ways to sustain relationships to country even in the rapidly changed circumstances of colonialism’ (Goodall 2001, p. 101).

In the Borroloola area, for instance, the lining from disposable nappies is used as ‘down’ on young men in ceremonies, body decorations once sourced from the down feathers from birds (Baker 1999). Metal pots and boiling water are now used for preparing plant medicines once extracted through the use of a grinding stone (Lassak & McCarthy 1983). In Central Australia, bottles of commercial baby oil have replaced animal fat as the base for body paintings (Dussart 1997), while acrylic paints and cement oxide are used instead of ochre to paint ceremonial body designs. Young people use digital cameras, videos and iPads as new cultural recording tools when they visit country with older generations (Kral & Schwab 2012, pp. 28–41). Graffiti augments the capture and depiction of personal geographies and linguistic identities; initials or words scrawled on fences, walls or road signs depict belonging and identity (cf. Kral 2012, pp. 45–47). (see Photo 3) It is also common to see markers of identity inked onto shoulderblades and arms, tattoos of skin names or language groups (see Photos 4 and 5).
Adaptations are credible and acceptable when the innovation is seen as a form of continuity. As Bob Tonkinson observed in *The Jigalong Mob*:

> It is a widely held principle of cultural adaptation that the acceptance of an innovation depends on the degree to which it is aligned with pre-existing orientations in the recipient culture. (Tonkinson 1974, p. 102)

For a long time, cultural change has been configured along the lines of cultural crisis or cultural disorder. This approach to cultural change is, in effect, what James Clifford calls a ‘style of distancing’ (1988, p. 4), meaning that a distinction is made between cultural haves and have nots. In this thesis, I show how young Aboriginal people in Central Australia are constantly distanced from the lives that they live through similar ideas of loss and imminence, a narrative which is repeatedly made available to them in popular culture and articulated into their lives as a problem to be overcome. The idea of youth deficits concentrates or distils the attrition that is more widely attributed to IEK in general. While the presumption that Aboriginal youth lack resources and opportunities for knowing their own cultural heritage has a partial empirical validity, viewed anthropologically, we still need to ask what forms of ecological knowledge young people reference and put to use in their everyday lives. Put differently, attention should be paid to the presence of IEK in young people's lives, in the face of all the forces that would
Photo 4. In tattoos, young Aboriginal people increasingly affirm their cultural identities.

Photo 5. Here, a young woman expresses her identity through her skin name ‘Napangarti’.
negate it. If it is true to say, as Greenfield does, that ‘the novelty of one generation becomes the
tradition of the next’ (Greenfield 2004, p. 15), it is time to move beyond (artificial) measures of
authenticity. Myers also notes an observation made by a visitor to a Pintupi community ‘once,
a precedent; twice, a tradition’ (1991, p. 285).

Despite relatively recent contact, Aboriginal people in desert Australia, while maintaining
much that they value, like other groups, have not been able to evade the circumstances of histo-
ry (Myers 1991). Young people in Alice Springs and remote communities in Central Australia
have inherited the continuity, contraction and transformation of socio-cultural practices across
the generations. In this, my work accords with the words of LeVine, when he notes:

Adolescents facing personal decisions in an historical context are not just the recipients of their
parents’ culture but the creators of a new version, reflecting the novel conditions in which they
are growing up (LeVine 2011, p. 426).

As Andrew Strathern and Pamela Stewart note ‘Customary practices can be either re-
emphasized or stretched in new ways as a result of contemporary conditions’ (2008, p. xiii).
This research on IEK and young adults is an exploration of cultural production, transmission
and reproduction across time, showing young people to be dynamic agents of social change
and upholders of culturally valuable knowledge.
can only talk about IEK and youth in Central Australia by taking into consideration the serious impacts of colonisation, pastoral settlement and the role of the state upon the lives of Aboriginal people. Understanding historical change is critical in an examination of the current social reproduction of knowledge and the emergence of a new IEK habitus. It is the abstracted and ahistorical view of young Aboriginal adults that is part of their marginalisation and configures them as ‘naturally’ adverse to all things related to IEK.

The European incursion into Central Australia began with the expeditions of John McDouall Stuart between 1858 and 1862 (Donovan 1988). Stuart provided colonial authorities with a route for an overland telegraph cable which would open up communications between Australia and the rest of the British Empire. The completion of the Overland Telegraph Station in 1872 forged a corridor through the middle of the continent, and Arrernte and Warumungu people on this route were directly in the ‘path of development’ (Bell 1983, p. 48). The Overland Telegraph Station marked the start of profound and momentous change to Aboriginal life in Alice Springs and Tennant Creek and throughout Central Australia (Rowse 1998; Austin-Broos 2009). Its construction and completion precipitated the arrival of permanent European settlement and the arrival of greater numbers of explorers, pastoralists, missionaries and labourers (Rowse 1998). The arrival of non-Aboriginal people into Central Australia was thus not a single event; waves of arrivals centred on exploration, pastoralism, the discovery of gold and precious gems, and the completion of the railway line connecting Adelaide to Alice Springs in 1929 (Goodall 2001; Rubuntja & Green 2002).

20 Alice Springs was called Stuart until 1933. For convenience, I will refer to the early township of Stuart as Alice Springs.
In Central Australia and other remote parts of Australia, colonial government policy was shaped by the expansion of the pastoral industry (Fletcher 1992). Consequently, the pastoral industry has been described as both a ‘capitalist and colonizing enterprise’ (Paterson 2005, p. 28). Pastoralists obtained properties through government granted leases and cattle stations quickly grew in numbers (Rowse 1998). About 40 per cent of Central Australia and the Northern Territory were taken up in this process (Read & Read 1991). Stock started arriving into Central Australia from 1873 onwards, with the greatest numbers of stock arriving in the years 1876 to 1884 (Duncan 1967). By 1888 it is estimated that approximately 50 000 cattle, 4500 horses and 10 000 sheep had arrived in the centre (Hartwig 1965). The introduction of cattle into Central Australia meant severe restrictions to land and sources of food and water (Rowse 1998). Across Central Australia, Aboriginal people were hunted from waterholes by ‘chasing them down on horseback and shooting at them’ (Lyon & Parsons 1989, pp. 6–7). Aboriginal people refer to this period as the ‘killing times’ (Bell 1983, p. 44) while authorities euphemistically referring to the killings as ‘dispersals’ (Kimber 1990; 1997, pp. 33–65). During the first 30 years of contact there was massive population loss, for the bloodshed and ruthless atrocities committed during early contact largely went unchecked (Reynolds 1987; Lyon & Parsons 1989; Rose 1991; Trigger 1992; Baker 1999). The establishment of missions in Central Australia closely followed first contact and pastoralism (Kimber 1991). Hermannsburg Mission was established by German Lutherans in 1877, 130 kilometres west of Alice Springs, on the lands of Western Arrernte people (Austin-Broos 2009). By 1935 the Catholic Church had established a school for Central and Eastern Arrernte people living in Alice Springs (Rubuntja & Green 2002). Further north of Alice Springs, the Aboriginal Inland Mission established itself in Tennant Creek in 1939 and began providing basic education. In 1945 the mission relocated to a place that was once a ration depot called Phillip Creek (Christen 2009).

Although providing refuge and protection, one culturally negative implication of missions was sedentarisation. Christianity also meant another kind of displacement, the displacement of traditional religious and social systems and the deliberate marginalisation of local languages (Burbank 1988). Language loss or linguistic assimilation has been characterised as being ‘at the heart of many of the negative aspects of black / white relations in Australia since colonisation’ (Ash, Giacon & Lissarrague 2003, p. v).

21 The Hermannsburg Mission was the first mission to be established in the Northern Territory (Austin-Broos 2009).
The Second World War also marked a turning point for Central Australia. Alice Springs became a military centre and the town soon developed as a modern service centre (Austin-Broos 2009). The white population of Alice Springs before the war was 400 and during the war rose to 6000 (Haebich 2000). To this day, Alice Springs continues as the service centre for the southern half of the Northern Territory. The post-war period saw a modernising policy shift, with a revision of older style protectionism (associated with missions) and the introduction of a new welfare model based on assimilation (Rowse 1998). During this time many of today's large Aboriginal communities in Central Australia were set up as government settlements.

The colonial settler-state maintained power over people's lives through political, economic and administrative arrangements operationalised socially through institutions: missions, ration depots, settlements, reserves and pastoral properties (Rowse 1998). This domination was enacted via policies of ‘isolation-protectionism’ and ‘assimilation-integration’ and centred on Aboriginal people being forcibly moved or out of necessity relocating themselves to missions, government settlements and pastoral properties. Aboriginal policies have been described as being ‘produced for white Australia rather than immediately for the population that it targets’ (Sullivan 2011, p. 7). Indeed this is the case for policies that affected people's lives over a hundred years ago and that continue to the present day.

In Central Australia, the arrival of non-Aboriginal people and stock, along with the introduction of feral non-native species, combined to reduce habitat and increase predation, leading to the extinction of some animal and plant species (Burbidge, Johnson, Fuller et al. 1988; Grice, Friedel, Marshall et al. 2012). Animals that are extinct or rare may have only been seen by elderly people when they were children, with some species not seen by people alive today (Nesbitt, Baker, Copley et al. 2001). For Arrernte, Warumungu and other desert language groups, burning practices for hunting were curtailed during the early phase of pastoralism (Austin-Broos 2009; Christen 2009). The link between the productivity of certain bush food species and burning is well recognised (Latz 1995; Rose 1996; Whitehead, Bowman, Preece et al. 2003; Edwards et al. 2008). In Central Australia, Peter Latz (1994) estimates that a third of food came from species that responded to burning, including from the use of fire for hunting. While Aboriginal language groups in the Western Desert and north-west of Alice Springs continue to use fire for hunting (Bird et al. 2005; Walker 2010), burning on Aboriginal lands
surrounding Alice Springs and Tennant Creek is now done with caution or not at all (Dobson & Walsh 2008). To this day, there is great fear of lighting even small cooking fires on Aboriginal land or roadsides near some pastoral properties. On one bush trip with a mixed-age group of women, I noticed a middle-aged woman taking extreme care to cover the already watered and extinguished fire with red dirt. She covered the area completely and all that was visible was a small red mound with no ash or coals in sight. Such was the fear of leaving any sign of even a small fire. This is an example of how Aboriginal people have modified their actions around practice. Decisions are made based on what is acceptable (or not) to neighbouring white landholders, which in turn contributes to the creation of new practices (or by default non-practice). This fear has been learnt and passed down the generations, thereby affecting IEK practices that are maintained or ‘let go.’

In this and many other ways, while it is very hard to disentangle IEK from wider processes of change, the search to capture IEK before it vanishes has its conceptual roots in notions of static tradition and unaltered ecologies. Less highlighted in terms of knowledge reproduction and social processes is the fact that local ecosystems have also drastically changed (Povinelli 1993; Goodall 2001). Take the long history of land degradation in Central Australia, and in arid Australia more generally. Nationally, and in desert Australia, multiple factors have contributed to land degradation and biodiversity decline (Morton, Sheppard & Lonsdale 2014). Central Australia is now extensively infested with an introduced alien plant species, buffel grass (*Cenchrus ciliaris*). Both the pastoral (livestock) industry and Northern Territory Government consider buffel grass to be a productive and commercially important species, but to Aboriginal people it is an unwelcome stranger and its presence is blamed for the disappearance of local bush foods (Batty & Walsh 2014). Buffel grass puts a stop to families taking children and young people to visit and harvest plant foods at locations that were once productive. Despite scientific recognition of its invasiveness and the detrimental impacts it has on biodiversity, ecosystem processes and fire regimes (Lonsdale 1994; Richardson 1998; Groves, Boden & Lonsdale 2005; Friedel, Grice, Marshall et al. 2011), buffel grass is not listed in the weed legislation of any Australian state (Grice et al. 2012).

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22 Buffel grass (*Cenchrus ciliaris*) is common and widespread in Central Australia (Grice et al. 2012). It is considered to be one of the most successful introduced pasture grasses in northern Australia with improvements in livestock carrying capacities and pastoral systems attributed to it (Humphreys 1967; Friedel, Puckey, O’Malley et al. 2006). It is also a highly contentious species with Aboriginal landowners and resource managers concerned with its negative impact on the environment (Batty & Walsh 2014).
So, while in Central Australia young people have lives that are inextricably bound due to a shared colonial encounter, they are also drawn together and pulled apart for all sorts of diverse reasons. In the past, young people had very specific and bounded points of reference due to kinship, country, language and marriage, but the contemporary mixing up and sedentarisation of people means that youth now have multiple geographic and linguistic points of orientation and reference. This means that young people can have multiple layers of belonging and interpret the world and their experience through multiple frames of reference and interaction with others (Bartlett 2007; Mallan, Ashford & Singh 2010). Given this, I also decided that an ethnographic approach comprising participant observation, interviews and survey data was the best way to capture the context and complexity of young people's relationship with IEK. Rapid social change and new social contexts in Aboriginal Australia means ethnographic studies of Local Knowledge and practice are becoming increasingly important (Denzin & Lincoln 2005). But this was not an easy choice.

### The reluctant ethnographer

The theoretical basis of this research, a socio-cultural theory of learning, is not ‘method-centric’ but can be ‘validated and illuminated at different levels of analysis by widely varying methods and methodology’ (Greenfield 2000; 2009, p. 401). Working out what this description meant in practice involved much trial and error, including working out what same-culture ethnography meant in practice.

Before I had even stepped into the field I was what Ruth Behar calls ‘the reluctant ethnographer’ (Behar 1996, p. 50) or, more accurately in an Aboriginal context, the ‘shame’ researcher. As an emotion, shame is characterised as being ‘the most powerful in Aboriginal life’ (Stanner 2009, p. 46). Fred Myers (1991) and Jennifer Biddle (1997) provide insightful accounts of the complexity of shame from fieldwork conducted with other desert peoples, the Pintupi and Warlpiri. Shame is characterised by Myers as maintaining ‘a public presentation of self that is largely devoid of egotism, selfishness, individuality’ (1991, p. 121). The research shame I write about is a heightened sensitivity to making demands on people's time or of pre-supposing that my interests would match the interests of people I wanted to talk with. Shame is a reluctance
to impose oneself on others (Myers 1991; Merlan 1998). This lies at the heart of my research shame. Gary Robinson, working among Tiwi Island people, also writes about the problem of ‘shame’ in ethnographic fieldwork – how it emerges in ethnographic text and how it shapes interactions in the field (Robinson 1997, p. 307).

Yet, as it turned out, shame was a fundamental component of my overarching research methodology, forming the basis of respectful relationships and helping to smooth the way for establishing new relationships. Before I elaborate how this works in an Aboriginal research context, first let me comment about the conflicting views of shame that are held within the Aboriginal communities of which I am a part.

Aboriginal parents dedicate much effort (including using forms of bribery) to force kids to stop being shame; to stop, that is, from being so acutely self-conscious they hold back on crucial forms of social participation, from having a go at digging yerrampe (honeyants / Camponatus inflatus) to being the one (under the gaze of many) who lights the candles on a birthday cake. But even as we try and teach young people not to be shame we are simultaneously part of the socialisation processes that teaches shame. We want young people to be shame and not be shame at the same time. Shame is something you learn in childhood, usually by being ‘growled’ (told off / criticised) or ‘teased’ by peers and elders, two powerful mechanisms of socialisation that instil an acute social awareness of the risk of transgression. (As later chapters also reveal, shame is something that aids and interrupts intergenerational communication in IEK.)

Aboriginal modernists or self-styled progressives would characterise shame as a ‘backwards’ quality, something that needs to disappear if Aboriginal people are to ‘get ahead in life’. Yet shame is an intrinsic quality of moral behaviour, self-control and ‘doing the right thing’. Inhabiting shame means that you know how to behave and ‘how not to behave’ (Biddle 1997, p. 236, original emphasis). Social awareness and knowing how to behave and how not behave were key characteristics of my research methodology. As Myers likewise observes, shame is a quality of a ‘socialised person’ and activates considerations of ‘respect’ (1991, p. 121). Awareness is therefore a quality of shame: to have shame is to be socially aware.

As an Aboriginal researcher, shame or social awareness means you can also carry the burden of shame for a non-Aboriginal colleague who unknowingly does something that breaches social
mores; their actions or words are considered improper and cause shame to the Indigenous person who has operated as guarantor. A vicarious stigma attaches to non-Aboriginal indiscretion when an Aboriginal person has vouched for them.

The flip side to the positive, socially constructive qualities of shame is overcoming the challenges of having and creating shame while conducting research. I knew that the ethnographic method – watching, asking questions, writing notes, not only in settings where I was known but also where I was somebody new and unknown – had the potential to create ‘shaming interactions’ for both myself and for people involved in the research (Biddle 1997, p. 235). I knew that being a stranger and ‘looking too hard’ could make people feel uncomfortable. Jennifer Biddle succinctly sums up the issue of ‘looking’: ‘the dilemma for the modern anthropologist is, to put it simply: how to look without staring. Without being seen to look’ (1997, p. 234). Going on camps with youth groups, I was constantly taking care not to be seen to be watching, but knowing that people knew I was watching and knowing that in return they were intently watching me. And this is what Aboriginal people do all the time: observe each other closely, much more closely than non-Aboriginal people watch each other. Scanning is what Aboriginal people do over talking.

The issue of not wanting to impose myself on others was at times almost crippling. It stopped me from setting up interviews. It saw me over-thinking my research, which delayed actually doing the research. Francesca Merlan writes that shame prevents people from ‘thrusting themselves upon people whom they do not know and with whom they have no significant existing connection’ (1998, p. 205). Jennifer Biddle notes ‘shame and its visitations are highly individuated’ (1997, p. 236). I was caught between the shame of being ashamed and the shame of ‘being self-conscious of one’s difference’ in the Aboriginal domain (Biddle 1997, p. 233).

**Studying social phenomena ethnographically**

During the first year of my candidature, I attended a seminar held by someone who had just completed their doctorate. At the conclusion of the seminar, as audience members were gathering to leave, I overheard an Aboriginal man (whom I knew and who was sitting behind me) say incredulously: ‘She did a PhD to find out that? I could have told her that!’ The assumptions behind ‘I could have told her that’ is a difficulty of ethnographic work, as
ethnographers reveal the taken for granted and ‘what everyone else may think they already know’ (Heath Brice & Street 2008, p. 126). For example, Tobias Hecht, in his ethnography *At home in the Street: Children of Northeast Brazil* (Hecht 1998), revealed that street children were better fed on the streets than they were at home due to the kindness of café owners, tourists and widowers. Hecht found this through immersion with young people and finding out what caused distress and where care was unexpectedly located. While his results were unexpected for other academics and Western policy makers, for the young street kids he was working with, his finding was far from revelatory.

Putting the concerns of repeating what people feel they already know aside, the appeal of an ethnographic approach is that it is premised on flexibility, sensitivity to context and an openness to engaging with the unexpected and being ‘comfortable with change and emergence’ (Hammersley & Atkinson 1983; Burns 2000, p. 395). Daily life for young and old is one of constant change, plans are re-made constantly in response to opportunities gained or lost. Ethnography emphasises and accepts that people's behaviour, their choices and everyday activities, routines and beliefs occur within the context of larger social, political and cultural landscapes and can only be understood in this context (Hammersley & Atkinson 1983; Burns 2000). Importantly in an Aboriginal research context, ethnographic work is a process that involves face-to-face research and ‘intimate contact’ based on trust, friendship and reciprocity (Madden 2010, p. 16). Ethnographers also position themselves as a ‘novice’ or an ‘acceptable incompetent’ and avoid the role of the ‘expert’ (Hammersley & Atkinson 1983, p. 89). Fred Myers notes:

> Ethnographers are guided by their experiences and understandings their informants reveal of their social world and its workings. These concern the world as it 'appears' to them. While these local understandings may in some sense represent their experience of what is important, they are also only parts of a complex, largely taken for granted social structure. Finally, what is taken for granted must be accounted for as well (1991, p. 292)

**Indigenous research paradigm**

Like ethnography, an Indigenous research approach also positions people participating in the research as the experts of their experiences rather than objects of the research (Rigney 1999). As has long been observed in Australia and internationally, the theory and practice of research
is intimately bound up with histories of colonisation (Smith 1999). There is a growing body of literature by Indigenous scholars critiquing mainstream research and disciplinary practices and foregrounding Indigenous values and ways of knowing in their methodological approaches and methods employed (Briscoe 1978; Langton 1981; Anderson 1996; Rigney 1997; Bishop 1998; Brady 1999; Rigney 1999; Smith 1999; Brayboy 2000; Grande 2000; Moreton-Robinson 2000; Humphery 2001; Martin, K 2003; Nakata 2006; Battiste 2008; Martin 2008; Kovach 2009; Langton 2010; West, Stewart, Foster et al. 2012). Like Smith (1999) and Grande (2000), I make a distinction between Indigenous scholars and African American scholars and other marginalised and minority peoples despite the shared concern for human and civil rights and social justice. This said, writers of different marginalised, Indigenous and ethnic backgrounds have added greatly to our understandings of race, gender, class and power relations (Denzin & Lincoln 2005).

Following Guba and Lincoln’s call for researchers to be clear about the research approach that informs their work (1994, p. 116), I acknowledge that within the traditions of qualitative inquiry, I sit in the social constructivist camp. However, as an Aboriginal person, I frame the constructivist approach within an Aboriginal worldview. Indigenous scholars Karen Martin (2008), Shawn Wilson (2001) and Linda Tuhiwai Smith (1999; 2005, pp. 85–108) acknowledge that among qualitative research traditions, some fit well with Indigenous worldviews. An ethnographic approach is one of these. With ethnography, you observe, analyse and write about people's lives. Aboriginal people observe, analyse and discuss people's lives endlessly and as a matter of course. It is the primary means of staying in the know.

However, the convergence between Indigenous ways of knowing and Western scholarship is not as smooth as the above might imply. As Linda Tuhiwai Smith argues, studying the ‘Other’ and creating expert knowledge about the ‘Other’ has given rise to many of the basic disciplines that stand for academic knowledge as we have come to know it (2005, p. 87). These disciplines have further contributed to colonial structures of power and domination (Hörschelmann & Stenning 2008). Smith observes that Indigenous communities are often viewed as ‘noisy communities of difference “out there”’ (Smith 2005, p. 85); that is, as places that are being studied by someone who is external to the people and the place. As I was doing ‘same culture’ research the ‘out there’ was ‘right here’, involving a familiar grouping of people living and
transacting in familiar settings. This meant there was no destruction of the self ‘after the process of self-dissolution resulting from the ethnographic confrontation’ (Crapanzano 1977, p. 70; quoted in Macdonald 2002, my emphasis). The community I speak of is one I am part of, which introduces unique methodological concerns: the matter of being an Aboriginal ethnographer who embodies as much as she objectifies the research focus. I was going from being a member of the ‘ethnographised’ to being the ethnographer (Behar 1996, p. 27). My challenge was less about the ethnographic confrontation and more about resisting having a role in the ethnographic exposure of people’s private lives. Being an Aboriginal researcher lends its own set of sensitivities and sensibilities around these issues, matters that are also experienced by non-Aboriginal researchers but with perhaps different ramifications. Another way of putting this is to say that this research is located within an Indigenous research paradigm articulated by Australian Indigenous scholar Karen Martin as ‘knowing, being and doing’ (Martin 2008, p. 72). My approach to research is also influenced by my life experience and history. This shapes the ways in which I think, speak, relate to people and write.

As a mixed-methods and politically active inquiry conducted by an Indigenous woman among Indigenous people, this research also sits within the space created by the merger between Indigenous and critical methodologies. Denzin, Lincoln and Smith (2008) define this space as a critical Indigenous pedagogy, or critical Indigenous qualitative research. They assert that ‘critical indigenous inquiry begins with the concerns of indigenous people’ (Denzin et al. 2008, p. 2). Indeed, the impetus for this research started with repeatedly hearing the concerns and voiced frustrations of older Aboriginal people about the attenuation of cultural knowledge. A similar imperative motivated Maori academic, Linda Tuhiwai Smith:

I too wanted to know why it was that community concerns were always reframed around standard research problems. How can research ever address our needs as indigenous peoples if our questions are never taken seriously? It was as if the community’s questions were never heard, simply passed over, silenced (1999, p. 198).

This research has grown out of concerns I have heard expressed from older Aboriginal people over the last two decades. Whether it was an Aboriginal-convened or government-initiated workshop or meeting, I heard the same questions and frustrations raised time and time again about young people and the question of cultural continuity. Responding to the views of the
older generation helped shape my research focus, as did seeing a similar narrative of deficit and loss about Indigenous youth repeated in the popular media, albeit using different terms and, I am convinced, different meanings.

It is perhaps surprising that there are so few academic examinations of IEK by Aboriginal people. This is not to say that Indigenous perspectives are neglected. There is an extensive literature by Indigenous Knowledge holders that document linguistic and cultural knowledge for the benefit of future generations, but most Indigenous contributions to the academy on IEK are in collaboration with non-Indigenous colleagues and with Indigenous collaborators positioned as informants rather than analysts. It is my hope that this study will add to the growing Indigenous scholarship on Indigenous Knowledge.

**My ‘insider’ experience**

In my 23 years in Alice Springs I worked for 14 years in community-controlled Aboriginal organisations and nine years in research roles at Charles Darwin University and the Commonwealth Scientific and Industrial Research Organisation (CSIRO). In the community-controlled sector I worked for Tangentyere Council, which is the service provider to the town camps of Alice Springs and then at an Aboriginal publisher, the Institute for Aboriginal Development Press (IAD Press). At IAD Press I worked on projects with Aboriginal and non-Aboriginal experts (linguists, educators, elders, community leaders, artists), pursuing community-initiated projects with a strong language, culture and natural history focus. My time at IAD Press also helped establish networks with staff from a range of Aboriginal organisations and government agencies. I developed relationships with a number of senior and middle-aged language speakers in Alice Springs and across different language groups and communities in Central Australia. For 12 years I worked alongside and witnessed the passion and dedication that senior people have for maintaining their language and cultural traditions and practices; I also learnt of their deep worries about knowledge threats. While the resources we produced were for young people, they were seldom involved or included in the documentation process.

Aboriginal researchers are socially embedded or ‘socially located’ researchers; that is, the ‘personal, political, cultural and academic become entwined’ (Walter & Anderson 2013, pp. 86–87). Sharing personal histories to illuminate the social worlds we are studying is a double-edged
sword. It can make us ‘vulnerable as both people and researchers’ and inadvertently lead to a diminishment of our scholarship (Walter & Anderson 2013, pp. 86–87). Indigenous researchers, for their own individual reasons, make decisions about how much personal background they will or will not reveal; the lived experience of what is being studied. I knew about the Stolen Generations, the exodus of children and missionaries from Croker Island Mission during the Second World War, the hardship and brutality experienced by Aboriginal children and women in the stock camps of the Victoria River District (VRD) and the education opportunities deliberately withheld in exchange for assignment to unpaid domestic work or low-paying labour-intensive jobs. I grew up knowing these stories from within my family before these matters were established as fact through a royal commission, published reports and scholarship, or what constitutes accepted evidence by mainstream Australia.

I expected my research to be a study of other people’s lives and their personal narratives. However, the research turned out to be a familiar, if rarely written, story, part of the historical experience of Aboriginal people across Australia, urban and remote. These family and individual histories are about lives: lives lived on missions, settlements or pastoral properties 100 years ago, and now being played out in urban environments. These are lives shaped by the invisible workings of government policy, the hidden hand that continues to baffle, control and survey Aboriginal people. For Aboriginal people in the Northern Territory, this control is still happening, if not tightening, today. The three tiers of government – local, Northern Territory and Commonwealth – continue to impact on the everyday lives of Aboriginal people, especially in public places and where financial transactions are carried out. Government policy can still grip you, in this new millennium, even in something as mundane as shop queues. I stood behind a dignified elderly man in his cowboy hat and boots who would have done the backbreaking work that propped up the cattle industry in the Northern Territory. He was being served at an Alice Springs store, being too-loudly told, with each word stretched in anger, that he ‘didn’t have enough money on his Basics Card to pay for everything’. He was grocery shopping for the

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23 Basics Card is an ‘income management’ measurement introduced as part of the Australian Government’s welfare quarantining system into Northern Territory communities under the Northern Territory Emergency Response, otherwise known as ‘the Intervention’. Income management is where 50–70 per cent of a welfare payment is quarantined to expenditure on food and other items (but not alcohol or cash for gambling) via special payment cards known as Basics Cards. These cards can only be used at government approved stores (Yu 2011). The mechanism to check available funds on Basic Cards was a system failure early on in the early roll out of the card. This caused delays in shop queues as items were returned to match available funds or excruciating embarrassment as trolleys full of food had to be walked away from.
vehicle full of grandchildren and a few adults parked outside the front of the shop, their last stop before they started their long drive back home. I knew he was heading east of Alice Springs because he had told me outside. His quiet demeanour belies what Aboriginal people easily recognise, his powerful cultural authority. A respected elder statesman in his own community, now publicly humiliated and at a loss to understand the workings of Centrelink and this very recently introduced income management device known as a Basics Card.

My networks and relationships with community members and those in a range of organisations greatly assisted this research. However, the networks I speak of are networks of trust, hard won and easily broken. Being known and trusted did not guarantee endorsement of my research. Fortunately, however, the research topic was considered to be an important one and I received support from a range of Aboriginal organisations. I was able to secure supplementary fieldwork funding from the Central Land Council and the Centrecorp Foundation, which in turn allowed me to pay Indigenous people per diems for interviews, purchase thankyou gift cards for young people who completed the questionnaire, as well as purchase an iPad as the prize for completing the survey.

At the same time, although I had built up an extensive network over many years in Central Australia, this did not include organisations or staff in the youth area. While the Central Land Council is one of the most important political instruments for adjudicating Indigenous resource interests, the CLC is also regarded as an organisation for ‘old people’. In particular, it was new relationships established with Akeyulerre Centre and the MacDonnell Regional Council that facilitated the greatest access to young people. The Akeyulerre Centre is a small Aboriginal organisation (locally referred to as ‘the centre’) that works with Arrernte families to support the intergenerational practice and maintenance of Arrernte cultural knowledge. Akeyulerre has five key program areas: Bush Products, Men’s Program, Bush Medicines, Bush Schools (country visits and camps) and Traditional Healing. The MacDonnell Regional Council was created on 1 July 2008 as part of the NT Government reforms to local councils when 13 small and independent community councils in the region were amalgamated into the

24 Field notes 17 June 2012.
25 For an overview of the Akeyulerre Centre see http://www.akeyulerre.org.au/.
one super-shire.26 The MacDonnell Regional Council has a Youth Development section that operates across communities to the west and east of Alice Springs, including the Arrernte communities of Santa Teresa and Ntaria.

Working with these Aboriginal organisations and service providers, I was better able to enter into youth networks and observe the organisational brokerage that now helps to sustain IEK. It also required carrying out research ‘two-ways’ in order to meet the requirements of the academy and the standards of the Aboriginal community.

**Institutional ethics and Indigenous ethical frameworks**

Indigenous researchers are increasingly calling for an ethical research model in which researchers are responsible to those with whom they are engaging in research or amongst whom they live (Smith 1999). They (we) are more personally accountable to local people than a ‘distant institutionally based ethics committee’ (Denzin & Lincoln 2005, p. 952). From an institutional point of view, I applied for and received human research ethics approval from Charles Darwin University. I also received research permission from Tangentyere Council and the Central Land Council. However, from an Aboriginal point of view I was constantly gauged and reviewed within a ‘live’ Aboriginal ethical framework. I was iteratively assessed by multiple peers, in multiple locations and across various contexts and spaces. I knew I’d passed local ethics when people asked me ‘when are you coming back’ or ‘come along to our open night, lots of young people will be there’. Invitations to participate and be part of local Aboriginal events and life represent inclusion and acceptance; that is, ethical clearance from the groups you are working with. Linda Tuhiwai Smith (Smith 1999) describes the small tests Indigenous researchers are put through where you are judged from within your own cultural group on criteria to do with your integrity as a person; not whether you have ethical clearance from a non-Indigenous ethics committee.

26 This was a wide-scale program of amalgamating community councils into a restricted number of ‘super-shires’. In 2013 the MacDonnell Shire Council was renamed the MacDonnell Regional Council. For an official account, see (http://macdonnell.nt.gov.au/uploads/misc/2013-14-MRC-Annual-Report.pdf); see also Michel and Taylor (2012) for a more critical overview of the local government reforms in the NT.
Peggy Miller and Jacqueline Goodnow observe that using several methods allows ‘researchers [to] explore not only the meanings that practices hold for people but also the degree of their commitment to or investment in them’ (Miller & Goodnow 1995, p. 10). This is especially important when, as it is widely acknowledged, studying social life is fraught due to it being ‘highly fluid, formidable to observe, and difficult to measure precisely’ (Neuman 2011, p. 9). Applied to contemporary Aboriginal modalities on the fringes of Alice Springs and Tennant Creek, any notions of methodological simplicity have to be jettisoned altogether. As a result, I combined semi-structured interviews, participant observation and a questionnaire into my ethnographic approach to facilitate the collection and analysis of data to better understand ‘what is going on’ for young adults. The questionnaire, delivered on a touch-screen iPad, turned out to be a great way of breaking the ice with young people and engaging them. Surprisingly, at least to someone of my generation, young people with school experience are quite used to completing surveys.27

The use of multiple methods respected the individuality, choice and agency of young adults. The term ‘prior informed consent’ is, by its very wording, weighted towards the presumption that consent will be forthcoming; ‘prior informed choice’ more clearly represents individual decision making and a weighing up of options. Some young people only did the questionnaire, while some preferred to be interviewed only; others were keen to do both. Then again, some young people neither wanted to be interviewed nor to fill a questionnaire but invited me instead simply to hang out and observe what was going on during youth camps and hunting trips. The method used at any particular time depended on the setting, context, available time, the level of distractions and interruptions, whether or not a sense of rapport was established and the choice and comfort of individuals. This was the shifting context in which consent was given or not given. Young people weighed up engaging with someone new as well as how much of their time they were prepared to give away. Researchers after all are time-takers. For many young people completing the questionnaire on an iPad was in line with how they wanted to spend their time. For others, it was not. A flexible approach was thus essential to respect their preferences.

27 I was reassured about the questionnaire by one of the youth research assistants that ‘we do this kind of thing all the time at school.’
As I will elaborate, young people were actively involved in the design of my research tools, they influenced the methods that were kept or dropped based on trial activities and feedback, and they reminded me that their voices mattered. Data collection was originally conceptualised in three parts: a mapping activity, interviews, and participant-observation by taking part in hunting trips, country visits or day trips with local Aboriginal organisations and youth services. The mapping activity asked young adults to draw a bush trip that they did with family, school or a youth program. I anticipated that information to be collected from these maps would relate to geographic spaces and places, use of natural resources and interaction with key knowledge holders from family or community. In theory the mapping activity was great, but early trials and feedback from young people made it necessary to re-think this data collection method (see Photo 6). The activity took a long time and paper and pencils was viewed as a disincentive, particularly as young people are now ‘living their lives on the screen’ (an issue we meet again in Chapter Seven). After discussions with trial participants, the mapping activity was replaced with an electronic survey, delivered on an iPad with a touch-screen format. Young people changed the questions that were asked and were involved in conducting field surveys themselves, knowing this was an opportunity for them to speak back to how they are normally represented in the media, in schools, by businesses, the wider community and even the older generation in their own kin networks.

**Fieldwork**

I was conscious that people sometimes tell researchers what they think they want us to hear, as opposed to telling us what they actually do, for putting commonplace and taken-for-granted habits into words is also difficult (Hammersley & Atkinson 1983; Jessor, Colby & Shweder 1996). To compensate for this I went on five single-day trips with organisations ‘out bush’, took part in six youth camps (from one-to-three nights’ duration) auspiced by Akeyulerre and the MacDonnell Shire, and went on five privately organised family hunting trips (two involved camping out). Youth camps involved more young women and family hunting trips involved more young men. By following people on hunting trips and youth camps, observing their hunting activities, use of natural resources and interactions between the generations, I gathered descriptive data that could not be brought about by more formalised methods (Hay 2000).
An observation made about fieldwork is that, in the midst of an Aboriginal community, you become the strange and new, not the other way around (Biddle 1997, p. 233). Even as an Aboriginal researcher you can still be considered a ‘foreigner’ or a stranger when visiting places like Tennant Creek, West camp, East camp, Santa Teresa or Ntaria. As Linda Tuhiwai Smith observes, there are multiple ways of being ‘insider’ and ‘outsider’ in an Indigenous context (Smith 2005, p. 137). In Alice Springs, I was less of a stranger due to the simple fact that I’d been around for a long time and that I had married into an Arrernte family. People generally knew whom I was connected to locally.

White strangers – bureaucrats, contractors, researchers, non-government and government service providers – are in and out of Indigenous communities throughout Central Australia all of the time. Across Australia, local people accept the presence of helping whites as part of the rhythm and routine of daily community life (Lea 2008, pp. 3–20). Helping whites have more
familiar roles and, increasingly, there’s just more of them pressing into people's lives, which makes the roles of Aboriginal strangers who visit communities (in lesser numbers and on fewer occasions) all the more ambiguous. Chloe Hooper, author of *The Tall Man* (2008)\(^{28}\), writes about her introductory tour of Palm Island (Queensland) with Aboriginal mayor, Erykah Kyle:

> Two white women – teachers, or nurses, or police – were walking briskly through the heat in shorts and T-shirts. They looked as awkward and out of place as I felt. ‘Who are they?’ I asked the mayor. ‘Strangers,’ she answered. (Hooper 2008, p.8)

In some ways being an Aboriginal stranger is harder than being a white stranger. You may not have long-term connections to local people and you don’t have a well-known occupation such as that of teacher, nurse, shire employee or ‘government person’. Without these authorising connections and associations, local people find it hard to situate you; either personally as kin or historically in regards to programs and projects or previous staff.

### Semi-structured interviews

In addition to feeling shame about being ‘the stranger’, an acutely self-conscious stranger at that, I was a stranger asking questions. No matter how delicately or sensitively put, a question is still an intrusive device and, in Aboriginal domains, still a potentially insulting and confrontational mode of communicating. Kendon (1988), for instance, describes the repertoire of Aboriginal communication styles as having a ‘highly complex and delicate character’ (Musharbash 2008, p. 245, citing Kendon 1988; Green 2014, see also Sansom 1980). Circumlocution and question avoidance are the name of the game. I was best able to make my questions appropriately indirect and circuitous in the instances where I had prior knowledge of the young person’s family history (or if someone briefed me privately on the side). For someone who doesn’t have Local Knowledge of individual biographies, asking seemingly simple questions like ‘Who do you go out bush with?’ automatically opens up the topic of family histories. Some family histories are punctuated by grief and trauma. For young people, the origins of grief might be attributed to alcohol-related harm; the premature death of a parent due to chronic disease, accident or homicide; or to parental neglect or family dysfunction, both of which contribute to the lack of viable, quality relationships (Robinson 2012). Asking superficially innocent questions about

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28 An award winning creative non-fiction, *The Tall Man*, set on Palm Island, documents the death in custody of Indigenous man Cameron Doomadgee and the struggle to bring policeman Christopher Hurley to trial.
family relationships as an Indigenous person risks invasions that, as an Aboriginal person, I should know better how to avoid. I interviewed a 19-year-old male whose father had died at a young age due to alcohol and whose mother was murdered a few years later. Armed with prior knowledge of this, I avoided asking questions explicitly about parents during this interview, but in other cases, I risked trampling over raw issues through the asking of what, on the surface, seem straightforward enough but for someone accorded insider knowledge would have shamed us both.

Social interactions are the backdrop to storied interpretation of events and meaning-making arrived at through multiple telling and recounting and analysis of stories (who did what and why and where). The semi-structured interview provides an opening for collecting narratives and privileges individual story through ‘talk’ (Kovach 2009). As Seidman puts it, ‘I interview because I am interested in other people's stories. Most simply put, stories are a way of knowing’ (Seidman 2013, p. 7). Interviews fill the gaps in knowledge that participant observation alone, if the emphasis is on observation over participation, can be unable to bridge effectively (Hay 2000). As an Indigenous researcher operating in a doubly scrutinised ethical field, I deliberately approached semi-structured interviews as a way of story telling. The acquisition and transmission of IEK involves complex social interactions among multiple players. So while my focus was on young adults, it was vital to also enlist the perspectives of middle-aged and older Aboriginal people. I additionally interviewed non-Aboriginal people who I knew from my own networks or who were recommended to me in order to gain a sense of how the non-Aboriginal people who so often facilitate Aboriginal access to their own lands view the whole business of IEK. My criteria for selecting non-Aboriginal interviewees was either that they worked in the youth field or that they had long-term connections to Central Australia, as linguists, educators or as land management facilitators. Along with older Aboriginal people, the linguists in particular provided a valuable longitudinal perspective. Many had arrived into Central Australia in the 1960s and early 1970s and have relationships with multiple generations within family groups. Middle-aged and older Aboriginal people provided perspectives from their everyday lived experience and as people involved in efforts to get young people out on country, either as a family group or in collaboration with organisations. On the surface, older people can be dismissive of young people, but if given the opportunity to explore questions at
a deeper level, they reveal insights into what's going on for young people from a family and intergenerational perspective.

Overall, I conducted face-to-face interviews with 50 people (see Table 1). A purposive sampling strategy was used for the interviews whereby I targeted people of a particular age range. I chose this sampling technique as it accounts for 'context' and facilitates 'a series of strategic choices about with who, where, and how' (Palys 2008, p. 697). As a non-random sample, the purposive approach meant I could target participants or 'unique cases that are especially informative' (Neumann 2011, p. 268). Of the interviews, 23 were young adults. I interviewed more females than males, which reflected my own gender. This gender imbalance was a constraint on this research.

<table>
<thead>
<tr>
<th>Age cohorts</th>
<th>Gender groups</th>
<th>Number of interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young women</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Young men</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Middle aged Aboriginal women</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Middle aged Aboriginal men</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Senior Aboriginal women</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Senior Aboriginal men</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Non-Aboriginal women</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Non-Aboriginal men</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Total interviews:</strong></td>
<td><strong>50</strong></td>
<td></td>
</tr>
</tbody>
</table>

* For a discussion on what constitutes ‘young’, ‘middle-aged’ and ‘senior’, see ‘De-coupling of age and generational roles’, Chapter Five, p. 128

Some interviews lasted over an hour while others lasted less than 30 minutes. Most of the interviews were digitally recorded and transcribed. Interviews were conducted in residential backyards, out bush and in the offices and outdoor spaces of Aboriginal organisations. I preferred quiet spaces within public areas, where we were visible and easily seen, to reinforce a message that nothing tricky was intended by the research. Interviews with non-Aboriginal people were conducted mainly in offices, and in one instance over the phone. The data collected via interviews was triangulated with information gathered from fieldwork observations and notes taken during youth camps and hunting trips, and data generated from a questionnaire that was in the main administered to young people, by young people.
Interview transcripts and field notes were transcribed and their content analysed using descriptive codes that reflected emergent themes and patterns. I coded with a view to answering 'who, what, where, when and how' types of questions (Hay 2000). The coding was reflexive, following Hay's edict that 'as new themes emerge, previously coded material will need to be re-coded to include the new concepts' (Hay 2005, p. 226).

**Questionnaire**

Questionnaires are viewed as a way to complement the use of more traditional ethnographic methods (Weisner 1996; Hay 2000). I included a questionnaire for two reasons: to help give me a more quantified picture of young people's experiences; and to elicit the engagement of young people (and it did this beautifully).

The survey was completed by 197 respondents from different language groups from across Central Australia. Young people were not excluded based on their language identity, for my aim was to collect information from a broad sample. Out of this sample, 150 were aged between 16 and 24, my target range. A further 47 people aged between 25 and 32 also completed the survey. As the survey was often explained within multi-aged and multi-generational group settings, people witnessing the process aged 24 and older would frequently volunteer to complete it too. Refusal would have been extremely impolite and create one of the ‘shaming interactions’ I described earlier. However, the survey results presented in this thesis do not include the responses from these older respondents.

Four research assistants, two males and two females, were recruited to assist with administering the questionnaire. Three were under the age of 24, while one older male was in his mid forties. They did not have prior experience in conducting research but were invaluable for not only recruiting participants from within their own social networks but, in their own way, providing some additional legitimacy to what I was attempting. As the research assistants were predominately young Arrernte people who spent more time doing fieldwork in and around Alice Springs, over half the survey responses are from Arrernte youth. The survey sample for Warumungu youth is much smaller as I had an older research assistant in Tennant Creek and

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29 See Appendix 1 for presentation of entire survey results.
less time was spent at this fieldwork location. Participants for the survey were recruited primarily through word of mouth using the snowballing technique (Noy 2008).

The remote location and highly fluid and mobile Aboriginal population made it very difficult to use a more randomised sampling method. I attempted to mitigate any selection bias by sampling in a range of different settings and by using male and female research assistants. Nonetheless, even though I sampled in various places to reduce bias, there will be bias; for example, because the respondents knew the survey was about ‘hunting’ and ‘going out bush’. From this, the conclusion could be drawn that any young person not interested in those things would have been less likely to volunteer their time to do the questionnaire. In addition to this, sampling done through youth peer networks would potentially return a sample of people interested in ‘bush things’ than those with no interest. A degree of bias in the sampling is thus inevitable and arguably impossible to avoid. As a result, while this is a broad survey sample collected from Alice Springs, Tennant Creek, Santa Teresa and Ntaria, it is not representative of the broader Central Australian youth population. Averages relates to the average from questionnaire responses, not averages from all young people in Central Australia.

**Engagement**

There were sensitivities in taking the institutionally embedded research tool of a questionnaire into Aboriginal contexts. For instance, low levels of literacy are a significant issue and affected whether the questionnaire could be completed independently or verbally administered. I needed it to do both. The questionnaire was deliberately screen-based, using the touch screen capabilities of an iPad. The iPad also provided a physical focus to the research interaction. The iPad was tangible, an object that could be manipulated and handled. The iPad in a sense provided an alternative centre of attention, becoming the focus of social activity, helping the young person to avoid feeling they were in the spotlight.

The questionnaire process started with an explanation of the questionnaire. Questions were then read out, which involved scrolling through the questions from start to finish, to give people a sense of what the survey contained and help them make up their minds about how interested and comfortable they would be in answering the questions. Previewing the questions was an important part of the consent process. It also reassured young people that there were
no surprise or sensitive questions. In fact, the questions had been developed with multiple forms of input from young people to remove anything that might cause confusion or, worse, shame. I not only received comments about the draft questionnaire, which included ‘It was fun’ and ‘It’s easy’, I also got affirmative feedback on the importance of the survey media.\textsuperscript{30} Young adults considered that ‘paper makes the questions look too hard’.\textsuperscript{31} This confirmed my own suspicions. Two iPads were purchased with 3G coverage. This ensured portability, mobility and access to an online survey tool, SurveyMonkey. Being larger than mobile phones, the iPads were relatively robust and sported a screen large enough to be viewed and operated by two or more people, which in turn was critical to supporting those with limited literacy. The size of the screen allowed the question to be read out, with the participant then able to enter their answers and manoeuvre the touch screen, completing the survey at their own pace. This put control of the process in the hands of the young person (see Photos 7 and 8).

A draft questionnaire was piloted with 10 young adults at the Akeyulerre Centre. Feedback from the pilot saw the final version simplified and shortened. Significantly, the pilot trial of the survey generated an important question from the young adults themselves. A discrete new question to this end was developed by the group and included in the final questionnaire. The focus group provided a key learning: an unexpected youth characterisation of IEK. They did so by making an important point, their response to the survey questions was: \textit{people always tell us what they want us to learn, but no-one ever asks us what we want to learn.}\textsuperscript{32} This is telling. It reveals a fundamental disconnect through omission, long before any intergenerational learning activity is planned and carried out. In response to this perceived neglect, the group came up with their own question: \textit{If you could learn more about Aboriginal culture, what would you like to learn about?} They formulated the replies to this question that respondents might select, categories which in turn provide insight into how young people characterise IEK. The categories young people could choose from included: bush foods; bush medicines; songs and dance; land and stories; language; painting and craft; hunting; and family history (see Table 2).

\textsuperscript{30} Field notes, 10 November 2011.  
\textsuperscript{31} Field notes, 10 November 2011.  
\textsuperscript{32} Field notes 8 July 2011.
Photo 7. The use of multiple methods in a range of different locations ensured young people could decide on their preferred location as to how they wanted to engage with the me and the research. Here, I interview a young woman from Santa Teresa. (Photo by Dave Nixon.)

Photo 8. As a survey instrument, the touch screen and portability of iPads gave young people more independence and control thus more engagement with the research.
Table 2. From the people who did the survey, the top five responses put priority to learning about family, land and its stories, bush foods, songs and dance, and hunting*

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family history</td>
<td>101</td>
</tr>
<tr>
<td>Land/Stories</td>
<td>79</td>
</tr>
<tr>
<td>Bush foods</td>
<td>67</td>
</tr>
<tr>
<td>Songs/Dance</td>
<td>66</td>
</tr>
<tr>
<td>Hunting</td>
<td>60</td>
</tr>
<tr>
<td>Bush medicines</td>
<td>55</td>
</tr>
<tr>
<td>Language</td>
<td>48</td>
</tr>
<tr>
<td>Painting/Craft</td>
<td>38</td>
</tr>
<tr>
<td>Other things</td>
<td>14</td>
</tr>
<tr>
<td>Nothing</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total number of responses</strong></td>
<td><strong>532</strong></td>
</tr>
</tbody>
</table>

* Respondents could choose multiple responses.

The survey results show that the top three areas young people want to learn more about are ‘family history’, ‘land and stories’, ‘songs and dance’ and ‘bush foods’. Interest in these themes was a sentiment echoed by 18-year-old Mary from West Camp when I interviewed her:

*I’d like to learn more about their country [grandparents] and I’ve heard bits and bits of their history, what they had to do and stuff to survive, but I’d like to learn more about that.*

Considered as a whole, the survey was split into five sections: ‘Thinking about what makes a good life’; ‘Thinking about when you were younger’; ‘Thinking about your life now’; ‘Thinking about your future’; and ‘A little bit about you’. The questionnaire provided a way to examine data from multiple points of view, including differences between male and female responses and from people who grew up in ‘town’, on a ‘remote community’ or ‘both’ (where they were raised at various times on a remote community/outstation and/or in town) (see Figure 7). In the early 1970s, Aboriginal people in the NT started to migrate out of government settlements and missions to live on their traditional lands. This decentralisation was called the outstation movement (in Central Australia) or homelands movement (in northern Australia) and was supported through Australian Government, as opposed to state- or territory-based, funding. I was also able to collect data on the frequency of going out bush as a child (see Figure 8) and as an adult (see Figure 9). The survey also facilitated quantification of cultural, subsistence and recreational activities.

33 Interviewed 16 August 2012.
34 In the early 1970s, Aboriginal people in the NT started to migrate out of government settlements and missions to live on their traditional lands. This decentralisation was called the outstation movement (in Central Australia) or homelands movement (in northern Australia) and was supported through Australian Government, as opposed to state- or territory-based, funding.
activities young adults engage in while out bush. The survey also showed that young people continue to recognise country and that it is important to them (see Table 3).

Figure 7. Young people (n=150) who did the survey came from various locations. About half were from remote communities, a third identified themselves as living between town and bush and the majority were from Alice Springs town.

Figure 8. Young females and males in the study (n=148) identified the frequency they went bush during childhood. A majority of both genders said they went out bush all the time in their childhood.
Figure 9. The survey indicated that as young adults the majority went on bush trips either ‘all the time’ or ‘sometimes’.

Table 3. The results of survey question 16 revealed a majority of young men and women identified country as important to them.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>29</td>
<td>3</td>
<td>13</td>
<td>78</td>
</tr>
<tr>
<td>Male</td>
<td>31</td>
<td>1</td>
<td>6</td>
<td>70</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>128</strong></td>
<td><strong>4</strong></td>
<td><strong>16</strong></td>
<td><strong>148</strong></td>
</tr>
</tbody>
</table>

However, while the survey data provides illuminating results (see in the discussion in Chapter Five), my intention was not to overplay ‘numbers’ at the expense of ethnographic observations and people’s voices. My analysis was based on a synthesis across results from the survey, interviews and fieldwork. Rather, my motivation in using an ethnographic approach, supplemented by interviews and a questionnaire, was to provide choice and flexibility to young people in the methods through which they engaged with the research. I was able to triangulate data from interviews, like the one done with Mary and others, with survey responses and my own fieldwork observations. Having a range of methods at hand also helped overcome my own apprehension about doing same-culture ethnography. I had different ways of engaging with people and could adapt to circumstances quickly without creating shame. As I describe in the next chapter, adaptability is also a characteristic of IEK processes and practices.
4 / IEK practices and processes in young lives

In this chapter I describe young adults’ outlook and behaviours relating to IEK. I focus on youth social practices in which IEK is embedded or the ways in which young people apply and demonstrate knowledge. This chapter is ‘not about the knowledge itself’ (Gomez-Baggethun & Reyes-Garcia 2013, p. 646). This distinction between practice and knowledge is succinctly articulated as:

The fact that a specific unit of knowledge is lost or kept by a society is not as important as whether the society retains the ability to generate, transform, transmit, and apply knowledge. It is the capacity to generate and apply knowledge that enables actions and adjustments in response to current and future changes, and therefore it is the capacity to generate and apply knowledge. (Gomez-Baggethun & Reyes-Garcia 2013, p. 646)

My research finds that, for young adults, the expression and practice of IEK is mainly done through hunting. Hunting provides opportunities to be on country, use a range of natural resources, be under the instruction of older people and peers, and learn by experience, observation and practice. I also show that participation in ceremonial life remains a core activity. Bereavement or mourning practices, locally called ‘sorry business’, entails young people going to great lengths to attend funerals and be part of the ‘finishing up’ practices leading up to a burial. Belief in the power of traditional healing practices, the use of traditional healers and the effectiveness of bush medicines remains part of the belief system of young people. Health and well-being practices continue to be observed, whether it’s smoking new babies or taking an infant to see a traditional healer. Young people also identify ‘rules’ that they observe when out bush (see Table 4). In summary, young adults engage in cultural practices relating to birth,
death and milestone life events through processes and practices of IEK.

This chapter shows that the commonly held stereotype – that Aboriginal youth occupy a world devoid of IEK – does not tally with the reality of their experience. Drawing on interviews with young people, observations from field trips, analysis of survey responses and interviews with older key informants, the chapter describes and analyses the life context of young Aboriginal lives in which IEK is situated.

Table 4. Examples of protocols identified by young people during the interviews. These protocols guide their own behaviour and that expected of other people when on country.

<table>
<thead>
<tr>
<th>Protocol Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘... sometimes when you go to someone else’s country, and if you’re near a lake or something, like if there’s a rainbow serpent, it’s not good to talk your language. Just English.’</td>
</tr>
<tr>
<td>‘You’re not allowed to wear any perfume or spray. You can’t really dress up and have a shower every day.’</td>
</tr>
<tr>
<td>‘I’m not allowed to wear bright clothes.’</td>
</tr>
<tr>
<td>‘Don’t show your hair around.’</td>
</tr>
<tr>
<td>‘... you’re not allowed to, when the sun goes down, not allowed to move the sand or make a sandcastle or dig a hole.’</td>
</tr>
<tr>
<td>‘Don’t whistle at night.’</td>
</tr>
<tr>
<td>‘Kids can’t sleep by themselves.’</td>
</tr>
<tr>
<td>‘Kids aren’t allowed to walk away by themselves.’</td>
</tr>
<tr>
<td>‘Don’t break down trees.’</td>
</tr>
<tr>
<td>‘Be quiet when digging honeyants.’</td>
</tr>
<tr>
<td>‘Don’t look in the hole when someone is digging.’</td>
</tr>
<tr>
<td>‘You’ve got to respect and abide by the rules of the country, and different country, different rules.’</td>
</tr>
<tr>
<td>‘Don’t walk around by yourself.’</td>
</tr>
<tr>
<td>‘You’re not allowed to look over their shoulder [when digging] because you might spoil it for them.’</td>
</tr>
<tr>
<td>‘Not to walk off – far from the campsite, just to hang around. And just to be careful if you are swimming in the water.’</td>
</tr>
</tbody>
</table>

Painful realities of young lives

I have already hinted at the painful realities of young people’s lived experience in Central Australia as being something to which an Indigenous researcher must be sensitive. These are within the disempowered circumstances of contemporary Aboriginal existence more generally. Many people do not have consistent control over their time, money or even access to their
country. This is the setting in which IEK learning and practice occurs.

For young adults, early entry into relationships is one backdrop within this setting. A young couple who live together (usually with older family members) are considered by the Aboriginal community to be married. Alice Springs is one of the main locations where young adults meet up and ‘get married’, and where relationships are established as part of the youthful ritual of ‘walking around at night’ (see Senior & Chenhall 2008). Aboriginal youth are entering ‘marriage’ and parenthood and achieving adult status in culturally recognised ways at a much younger age compared to their mainstream counterparts (Robinson 1997, pp. 308–308; Fietz 2008; Senior & Chenhall 2008).

Alice Springs is also viewed by young people as the cause for infidelities. The town provides an opportunity for a partner to ‘muck around’ or cheat with someone else, the very ‘walking around at night’ that facilitates early marriages also enabling multiple other temptations to occur. Youthful concerns about real or perceived infidelities can also contribute to the ‘violence of the everyday’ that can have acute consequences for young adults (Austin-Broos 2009, p. 177; Mohajer, Bessarab & Earnest 2009, p. 1137; Tonkinson 2011, pp. 230–232). Worrying about a partner cheating can also prevent young people from going out bush. The following account gives one example of a situation which has an impact on knowledge transmission.

One November, in the dark of night, a girlfriend and boyfriend argue at East Camp in Alice Springs. They are both teenagers; the young woman is 16 and the young man is 15. It is a jealous fight. Such fights commonly start from minor or imagined transgressions. A look in the wrong direction, simply walking past the house of someone who is seen as a potential rival, or deliberate provocation, can start things off. Such arguments often have no basis in truth, but veracity is not their point. As a performance, they serve as a demonstration of togetherness, symbolising ‘we are married’. The arguments are very public and can be loud, with lots of comings and goings, hysterical departures and dramatic returns, driving off and then coming back, doors slamming, motors revving, car windows sometimes smashed out of frustration at the direction of the argument or in response to a particular insult or injury.

35 Interview data, 24 April 2012.
36 Interview data, 24 April 2012.
37 Myrna Tonkinson explains this as ‘Fights between spouses or lovers . . . with jealousy as a major precipitator’ with these arguments sometimes resulting in violence (2011, p. 231).
These disputes are not lonely events. They usually involve other people who watch or comment in various ways – trying to calm things down with humorous interjections, by ‘growling’ both parties, or chastising the one who is condemned as the troublemaker who started it all. Jealous fights are common and part and parcel of being in a youthful relationship in Alice Springs. The name for the feelings and actions combined is ‘jealousing’.

But this jealous fight was different. The 16-year-old and 15-year-old had both been drinking. Alcohol is a common incendiary. The 16-year-old girl stabs her 15-year-old boyfriend in the leg. A femoral artery is cut; he loses a lot of blood. Family members frantically try to stop the bleeding, feeling their way in the dark. His blood escapes their efforts. He is taken by ambulance to the Alice Springs hospital, but dies soon after. The girl is also taken to hospital for the treatment of injuries she received from the young man’s family that night, commonly called ‘payback.’ It is at hospital that she has a blood test and first discovers she is pregnant with his child.

The girl is charged with his murder and, over a year later when the matter goes to court, she is the teenage mother of a small baby. A 15-year-old boy, on the edge of entering young adulthood, is dead. The baby has no father and the young man’s family has lost a son, grandson, brother, cousin and nephew under tragic and most probably accidental circumstances. Along with a jail sentence, the young woman faces a life sentence of guilt, shame, subtle exclusion and open hostility. She also has the task of raising a child whose father she has tragically killed.

Such is the backdrop to Indigenous Ecological Knowledge and the lives of young people in Central Australia today. It provides one aspect of many different lived experiences of everyday reality that sits outside more formulaic understandings of IEK and its social base. Thinking about it helps prevent the usual accounts of IEK: that it exists in splendid isolation from the gritty world of contemporary life or is the panacea to these contemporary harms. In a world where the everyday can be a struggle and the potential for conflict easily realised, opportunities to go out bush are viewed by young and old as a way of getting away from ‘trouble’, and ‘relaxing’. Hunting trips provide occasions to reduce stress as well as being a focal event in which IEK is enacted (see Photo 9).
Hunting

The Canadian anthropologist Paul Nadasdy documents hunting as being 'the single most important aspect' of how Canada's Kluane people conceive of themselves as First Nation peoples (2003, p. 63). Similarly, in Alice Springs and Tennant Creek, hunting continues to be foundational to people's way of life. It is the main way IEK is incorporated into the lives of young people, male and female.

Hunting provides the basis for accessing and being present on ancestral country and for using natural resources from that country. The term 'hunting' is inclusive of a diverse suite of activities. On hunting trips, the men will mainly hunt game such as kere aherre (kangaroo) and other game of interest that crosses their path (such as arleye / emu, arlewatyerre / sand goanna, atyunpe / perentie and artewe / bush turkey) (see Photos 10–14). Women and children will 'dig around' for yerrampe (honeyants / Camponatus inflatus) or tyape (witchetty grubs / larval stage...
of large cossid wood moth, likely to be *Endoxyla leucomochla* (see Photos 15 and 16). Young men and women participate along gender lines, though sometimes these gender divides blur depending on the type of trip. I have observed that both genders are opportunistic hunters. Men and women go together or separately to look for a fleshy green plant with slender white flowers, the prized bush tobacco (*ngkwerlpe* / *Nicotiana gossei*). Both women and men may also cut branches from the *artetye* (mulga tree / *Acacia aneura*) to fashion into *terurre* (clap sticks) or *kwetere* (fighting club) for selling back in Alice Springs. Money from such sales will be spent immediately on necessity items like an electricity power card, food, or to buy credit for a mobile phone. The women (with the help of children and young women) might also collect twigs to be burnt down to a very fine white ash to go with the *ngkwerlpe*, ideally from the ironwood tree (*atyarnpe* / *Acacia estrophiolata*) or the coolibah tree (*ankerre* / *Eucalyptus coolibah*) (see Photos 17 and 18).

Photo 10. Family hunting trips can be for a day only or involve overnight camps. Multiple generations take part with more youth and children present than older generations.

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38 As my fieldwork involving hunting trips was conducted with Arrernte families in and around Alice Springs, I will use Arrernte words (and Eastern Arrernte spelling) to describe plants and animals.

39 Power cards are used in a pre-payment system across the Northern Territory. Town camps and remote communities can choose to have an electricity meter installed. Power is credited to the meter by a single-use token, available for purchase at petrol stations, various supermarkets and in Alice Springs from take-away shops. The pre-paid card comes in denominations of $5, $10, $20, and $50. The card is fed into a slot on the front of the meter and the value of the card is credited to the meter. See http://www.powerwater.com.au/customers/my_account/pricing/meters/pre-payment_metering

40 The fine ash is mixed with *ngkwerlpe* (bush tobacco); the ash helps the nicotine in the *ngkwerlpe* to be absorbed into the bloodstream more quickly (Latz 1995, pp. 230–236).
Photos 11 and 12. Hunting and to be on country are major purposes for trips out bush. The learnt skills of hunting include the appropriate ways to prepare and cook different game species. TOP: Young men gut *kere aherre* (red kangaroos) the correct way. BOTTOM: Young men have laboured to collect the correct firewood, *artetye* / mulga (*Acacia aneura*), in enough quantity to carefully cook the kangaroos.
Photos 13 and 14. *Atyunpe* (perentie) are also hunted if they are found. The energy and fitness of young people are crucial to hunting these species on foot. Older people guide them in how to prepare and cook the species.
Digging for yerrampe (honeyants) is a popular activity of young women. There are rules of behaviour (e.g. speaking quietly). Young children learn through observation. They are 'growled' if they do not observe these rules around practice.
Hunting trips have been described as a ‘picnic’, albeit a ‘picnic with a difference’ (Young & Doohan 1989, pp. 132–133). Aboriginal people have also adopted ‘picnic’ into their vocabulary when describing hunting or bush trips. Twenty-two year old Nina explains:

“Well, sometime we would go hunting. Sit down and have picnic, go countryside, see our country.”

Hunting is the main context for family groups to go out bush regularly, in a mix of generations and ages. The basic social division of hunting appears to have changed little over the generations. While hunting trips can be mixed, gender still largely determines practice. As Cathy, 19 years old, observes:

“. . . men would go out for kangaroo, and usually me and my nannas and aunties and the kids would stay and make a camp and go for honeyants or just pretty much have a look around and if there was bush tucker there, we’d go and get it.”

Hunting trips also give young mothers the opportunity to collect particular foods that their infant children will enjoy. Gemma explains:
They want to go, and they [specially] want to go to the hot spot where there are honeyants or witchetty grubs or goannas if it’s goanna time. A country that’s been burned and they know that the goannas are there. But for young mums, it’s particularly witchetty grubs and honeyants. Goannas probably require more skill and there’ll be individuals amongst that whole group of young women who – who are good trackers and come up with the goods.43

Men, young and old, now hunt with guns in vehicles. This is a necessity due to hunting grounds being further away and the quarry being much sparser. The use and uptake of vehicles and guns has also been identified as a way of overcoming the problem of changed burning regimes under settlement. Expressed in research terms, the adoption of new technologies ensured ‘men’s return rates while hunting for mobile game did not change with burning’ (Bird et al. 2005, p. 454).

Young people also take advantage of opportunities that present themselves. For example, a group of young women (aged 18 to 21) took a group of children (their nieces and nephews) to a waterhole close to Alice Springs during a school holiday break. They had the use of a 12-seater bus, still roadworthy and registered despite its battered appearance. On their way home from swimming, they spotted a *kere arlewatyerre* (sand goanna / *Varanus gouldii*) on the dirt road ahead of them. This unexpected ‘good luck’ was met with much excitement and the bus came to a quick stop. The young women chased and stoned the goanna, filming each other on their mobile phones as they went. They took the carcass back to West Camp for older people to gut and prepare for cooking. They told me they didn’t know how to gut the goanna for cooking, or rather, while they theoretically knew the process, due to lack of practice they weren’t confident in doing it.44 This tension between performance and practice in all its manifestations, including coordinating body movements to the rhythm and lyrics of songs through to gutting a sand goanna, is something I explore further in Chapter Seven.

**A family hunting trip: a case example**

It is through family and extended kin that young people come to learn, internalise and integrate IEK as a holistic knowledge system. Using a case study of a bush trip organised by a middle-aged man and his wife, Tony and Brenda, I explore the logistical and tactical backdrop

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43 Interviewed 11 September 2012.
44 Field notes, 14 September 2013.
for a completely family-driven and family-resourced hunting trip (that is, not involving organisations).

It’s early Saturday morning and the first weekend of the July school holidays. In Central Australia, this mid-year four-week holiday (when the average daily temperature is 19.5°C) is a popular time to go out bush, being more comfortable than the hot season holidays in December. Tony and Brenda are getting ready to go bush for ‘the day’. Even though it’s talked about as a day trip, everyone involved knows that they will probably return home very late that evening. It will be a long, physically demanding day, with much lifting and carrying of heavy loads, digging and chopping, and constant movement and activity.

The physical labour of a hunting trip both attracts and repels young people. Some young people have reputations as a ‘good worker’; they are known for their ability to sit and ‘dig all day’, and have an ability to listen to and carry out instructions (see Photo 19). By contrast, some young people complain of being ‘slaved’ and ‘growled’ and will get sulky and completely withdraw from all activities.

The work necessary for preparing and undertaking a bush trip is not a deterrent for Tony and Brenda, for their actions are complementary. They are an efficient team. As it was in the past, cooperation and negotiation are the key organising principles for IEK transmission. Today, mutual aid is based on pooling and sharing material resources (including vehicles, equipment and various camping items). The social cooperation and negotiation that characterises hunting and resource use also includes decisions about where to go, when and why, as well as who to include or exclude. This social dynamic (who, when, where, why) needs to be known, discussed and responded to, and so the socio-politics of planning for bush trips takes a lot of time. This bush trip has already taken two weeks to plan. Tony has regularly visited people after he finished work, gauging their interest against other priorities, to see if they are available for this particular weekend. Access to vehicles was a constant concern.

Transport is an ongoing challenge for families who want to go hunting. There are always more people who want to go hunting than available seats, finances or vehicles. This means that some

45 Field notes, 15 July 2011.
46 Field notes, 15 July 2011.
47 Field notes, 15 July 2011.
Photo 19. The physical labour required when out bush both attracts and, at times, repels young people. Here, a shade structure is being constructed with a forked branch dug into hard ground which will hold a calico (tarpaulin) or roof frame.

people will miss out. Children cannot be left alone to look after themselves, but young adults can. Gwen, a grandmother who is regularly involved in hunting trips on Arrernte lands to the East of Alice Springs, observes:

> When I took the kids out bush not long ago, I wasn't even out of town but my windscreen broke; that cost $500. Another thing, because you're always wanting to take the kids somewhere, every second time we'll get caught by the police and get $500 fines. We got to take the kids out on the weekend – because you can't go with them and you can't go without them, so I've got to take the little ones. So really that thing about transport is just the game you play all the time. I've got a few fines now. You want to take them out but the laws have changed that they've all got to have one seatbelt each. And it's very expensive to have a troopie [Toyota Landcruiser Troopcarrier].[^48] You need two full-time workers to run a troopie. Then it defeats the purpose because there's no time to go.[^49]

[^48]: A 'troopie' is a Toyota Landcruiser Troopcarrier, which can transport 12 to 15 people.
[^49]: Interviewed 28 June 2012.
There are potential repercussions from overcrowding a vehicle to fit everyone in. There is the risk of being charged breaking road rules, and of then having to appear before a magistrate’s court and being fined. Ironically, while employment and income to Aboriginal families makes it possible to own and maintain a vehicle, full-time work can cut into and reduce available time to go out bush.

Tony wants to leave early, to drive out in the cool of the morning. But he knows it will be at least two or three hours before he can depart. As other families are involved, he expects delays as people go from house to house to pick up items left during temporary stays or that have been lent out. A crowbar is at one house, a camp oven at another, plus last minute food shopping must be done. Rarely do families have everything that they need in the one spot as items have been loaned or shared amongst wider families.

The timing of hunting trips is neither arbitrary nor at the whim of convenience. Trips are affected by school schedules but also other government processes. This trip must coincide with the Centrelink pay week so people have money to pay for fuel, tyres and bullets and takeaway food (see Photo 20). Any one family individual can call a trip off if there’s no money for these things, which causes a domino effect on other family members.

This bush trip organised by Tony and Brenda will involve three other vehicles, full of relatives, including a limited number of senior women and middle-aged men. No senior men in the family are involved in this trip (there are few available and they have poor health). Tony has spent the last week chasing up $70 to repair a spare tyre needed to fix a cousin’s car. (It is unusual for an Aboriginal family to have a spare tyre sitting idly in the trunk of car.) The $70 has proven elusive. It is an expensive single payment for one person on welfare, making the ‘chuck-in’ a sensible strategy: more people contribute a smaller amount, with less financial hurt all round. This is part of what anthropologists have called ‘demand sharing’ (Peterson 1993, pp. 860–874). However, importantly for Tony’s negotiations, there are also strategies for withholding, to avoid sharing (see also Myers 1991, p. 116). In this case, withholding has been sustained up until two days before the hunting trip. It’s like a game of poker, but with no cashed-up person to bluff because everyone’s in the same boat. It takes the realisation that the trip could seriously be called off for family members to collectively produce the $70.
Photo 20. A young man wrote this note on the back of an envelope and left it on a closed gate. He was with a large extended family group travelling in a convoy of vehicles on a hunting trip. His message was for the driver of a vehicle behind. His note shows that, despite the risk of running out of fuel and being stranded, he and his family still went hunting. This indicates the determination and interest of families to hunt, despite people’s financial constraints and the precarious nature of trips.

Where hunting vehicles can go is also radically circumscribed. Hunting for kangaroo is either done on pastoral properties (where good relations with managers are maintained and permission has been given) or on Aboriginal-owned land. Even then, people only hunt on land they are connected to. Non-Aboriginal held pastoral leases have broken hunting estates up into places with fences, gates and trespass warnings. It lengths the distances that people must drive, so that long periods of enforced enclosure in motor cars are as characteristic of going hunting as frequent opening and closing of gates. On one hunting trip, Tony and Brenda drove approximately 400 kilometres (200 kilometres travel out and return, 200 kilometres driving time hunting for kangaroos). This was considered a close trip, being at a location that is relatively near to Alice Springs.

This case study shows how vulnerable family bush trips can be. Something as taken for granted by regular income earners as a spare tyre can stop three cars, many adults, children and young people from going at all. There are many points in the planning and preparation at which
obstacles can arise to thwart the trip even before it leaves town.

From fieldwork and my observational data, hunting trips and the families involved in them form circles of connected cooperatives. Small family units work together in a larger extended kin group. Put differently, a wide extended family provides the basis for IEK practice. Very senior people are shared within this network, as are aunts and uncles (discussed in greater detail in the following chapter). Family groups aggregate or disaggregate with other small, related family units, depending on relationship politics and the availability of resources. The level of resourcing prevents or facilitates participation, with cooperation and co-dependency between kin making, or breaking, what can be done. For young adults, having and being part of a family who can organise bush trips is a precarious yet essential strategy embedded within the resilience of IEK. Clearly, hunting matters to young people and figures in their lives more than they are given credit for. But with the invisibility of this ongoing activity comes a similar occlusion of what impedes it, an issue I explore in forthcoming chapters.

### Collapsed time

IEK practices that once occurred every day have been collapsed into days and weeks. They are now timed by a 12-month calendar rather than the ecological time of Arrernte or Warumungu seasons. Iterative learning over extended periods is now truncated, interrupted and condensed.

In this example, Netta is 18 and fluent in both English and Western Arrernte. Her family live to the west of Ntaria, at one of the 37 homelands known as the Tjuwanpa outstations. The outstations are situated on five Aboriginal land trusts representing the five major patrilineal clan groups for that area (Austin-Broos 2009, p. 109, pp. 179–182). Netta tells me that her ‘families’ mainly go hunting for perenties (goannas), kangaroos and ‘go for bush tuckers’ when ‘it’s hot’ during ‘Christmas holiday time’. Interview data consistently revealed that young people identify that they mostly learn by going hunting during school holidays or on long weekends. Critically, it is the school calendar which now dictates when families go out bush. The mid-year school break in

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50 Interviewed 24 April 2012.
July (four weeks) and Christmas holidays over December and January (six weeks) means that much has to be crammed into the abbreviated time now available for country-based learning (where activities ‘on country’ provide a context for social organisation and knowledge transfer; that is, where land is reaffirmed as a pedagogic device (cf. Fogarty 2010)).

The relationship between schooling and Indigenous Knowledge have both been considered in anthropological and education research (see UNESCO 2009 for a compilation of articles on the topic). Some have argued that time spent in school detracts from time spent learning IEK (Benz, Cevallo, Santana et al. 2000; Sternberg, Nokes, Geissler et al. 2001). An alternative view is that formal education ‘which infuses Traditional Knowledge with the acquisition of academic skills will enhance learning outcomes in indigenous populations’ (Castagno & Brayboy 2008; Reyes-Garcia et al. 2010, p. 306). Researchers have argued that even partial inclusion of Local Knowledge in the curriculum can reduce the negative effect of schooling on IEK (Zent 2001; Voeks & Leony 2004; Quinlan & Quinlan 2007; Castagno & Brayboy 2008; Reyes-Garcia et al. 2010). For Arrernte and Warumungu youth, spending time out bush during the school holidays is already an expression of the connectedness and constraints of contemporary IEK. The impact of institutional times is clear from Rhonda’s recollections of childhood school holidays:

_We'd go hunting. I went with grandmother, aunties and uncles. On school holidays I went back to the station and my grandfather used to take us out to the countryside and look for porcupines and bush bananas._ 51

To state what should be obvious but often seems forgotten, everyday life now is completely different to the everyday life of yesteryear. Previously, subsistence activities necessary for survival happened every day with ceremonial and ritual activities organised in response to social and environmental conditions. With major changes and upheavals to Aboriginal worlds, subsistence and use of natural resources has been transformed into an ‘event’, a routine part of a 12-month calendar of available time. No longer do Aboriginal people live in a world where ‘shadows measure time’ (Turner & McDonald 2010, p. 215).

Events are characterised as ‘... action structures, organized by relationships of causality, temporality, and other such linkages’ (Bauman 1986, p. 5). Despite the temporal change, the events described here continue as practices embedded in ‘cultural frames’ or ‘cultural schemas

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51 Interviewed 29 August 2012.
...That these events now take place during school holidays and are considered 'normal' and part of the 'everyday' points to new 'cultural presuppositions' and 'new functional values on old categories' (cf. Certeau 1984; Sahlins 1981, pp. 81–82).

Modern time for Aboriginal people is characterised by working weeks, paydays, school timetables, the 24-hour clock, the 12-month Gregorian calendar. These structure the cash economy and three tiers of government that both invisibly and explicitly controls the lives of individuals and families. Socio-economic disadvantage and social disruption is the backdrop to which modern life is played out. This is the landscape in which IEK continues to find a place and relevance.

It can be argued that, in the olden times, use of natural resources, ceremony and ritual were also 'events' in the sense of being occasions attracting dedicated effort and attention. The difference is that these events existed and were embedded within a fully intact Aboriginal world and not as the resilient actions of a minority and colonised people inserting activities within a temporal order that is not of their own crafting.

In pre-colonial times, to survive in a desert landscape the people had to procure and prepare animal and vegetable foods and source water as everyday quests. This work was punctuated by the ongoing activities needed to sustain the land and its inhabitants through explicit acts of recognition and care. It was necessary to observe the weather, know the subtle changes in the seasons, recognise the life stages and growth in plants and animals, know where to find and how to harvest different foods and water, have an acute sense of direction and know the topography and water sources, understand the pattern and behaviour of wind and fire, know the travelling routes of close-by kin, the places to avoid and the places that must be approached with care. All these activities and processes happened continuously and not at isolated, fragmented points in time.

**Ceremonial life**

In modern life, while Aboriginal knowledge and practices that are considered 'open' are shared with 'new' audiences, there is also much that is withheld. These concern practices that are considered 'closed' and only for family and kin (Christen 2006, p. 425). What is locally called...
‘men’s business’ or ‘women’s business’ are sensitive subjects and topics that were never part of my research focus. To leave out male and female ceremonial matters is to disregard a key learning event or ‘teaching device’ in relationship to knowledge of the natural environment, kinship, country and the Dreaming (Berndt & Berndt 1992, p. 212; Holmes 2010, p. 206). But for reasons of protocol, they are themes that I sought to avoid in this study.

However, when people were interviewed, the topic of ‘business’ or ceremonial life was repeatedly raised by middle-aged and older women and men. People volunteered their thoughts, and my avoidance strategies as an Aboriginal woman were thwarted by the putative neutrality of the research role. To honour these inputs, this section on ceremonial life draws on inputs from middle-aged and senior men and women. I also include reflections by non-Aboriginal people who have long-standing relationships over many decades with Aboriginal people. Only one young man (23 years of age), whom I will call Levi, spoke frankly about learning interactions during this time. He did not reveal any restricted information and was careful to make the point: Yes, there’s a lot I want to learn, but I can’t share with females [with you].

To convey a young person’s perspective, I rely heavily on the interview with Levi, because his points synthesise many of the issues that were raised, but I emphasise that the information that follows is basic or ‘open’ knowledge that young and old, men and women, all know.

Men’s business happens once a year, usually at Christmas time (during the hot summer months). It lasts for weeks on end and potentially involves much travel. Young men who don’t participate in men’s business have questionable identities within their peer group. Middle-aged woman Patty tells me: They been learning a lot, when men – young men’s initiating. At end of year, Christmas time.

It is a very special time for young men and their families, including female relatives. Middle-aged Nina tells me: ‘Ceremony involves the whole community; it sets off everything for the community, the relationships. It involves all the women too.

Young women know, respect and abide by local rules attached to men’s business. Ellen, a 17-year-old Eastern Arrernte woman, tells me

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52 Interviewed 14 March 2012.
53 Interview data 14 March 2012.
54 Interviewed 14 June 2012.
55 Interviewed 16 May 2012.
*Bush camp, that's near the two tanks. So you can't go down that way. At the creek, when you are travelling out, you can't go, on your left. You can't go down there. That's part of the bush camp. We can only stay over the right side.*

Travel to and from Alice Springs from communities like Santa Teresa and Ntaria at Christmas time has to be undertaken carefully as non-initiates have to avoid seeing initiates. Ellen adds: ‘You know, when there's bush things going on [men's business], you've got to ring up and ask before you travel [out bush], so it's more safe for you to travel’. Ellen is referring to Aboriginal beliefs that they will get themselves into serious trouble for being on the road at a time when the roads should be kept clear for men travelling on men's business (see also Peterson 2000).

While ‘business’ matters highlight the strict division between genders and roles of men and women, such occasions bring whole communities together and women have important roles to perform. As Patty, an Aboriginal women in her early forties, notes:

... these girls, we seen them lot of time [dancing] when young man's initiating. When we have big corroboree with young men's, we see them, a lot of young girls dancing.

There are many roles demanding the attention of different female relations. Female relatives have their own separate camping area. These women's camps include lots of children, of both sexes, and women of all ages. They will participate in food preparation and cooking, buying groceries, cleaning pots and saucepans, assisting with errands and tasks, as well as performing more specific formal cultural roles. Becoming a mother, especially to sons, provides young women with the motivation to learn the ‘women's side of things’ so that they 'know what to do' when their son or sons are going through business. Nineteen-year-old Alison articulates her hopes for her baby son: 'I just want him to learn language, go out bush and learn the men's side of culture.'

The incentive to learn is always in relationship to others. Learning is in relationship to close kin and in response to being able to competently perform socially required and determined roles.
For young women, the desire to learn also connects them closely to their grandmothers.61 Nina, an Arrernte woman in her late forties, said:

*So one of my young grandmothers’ granddaughters, from my cousin’s side… She’s got four kids, maybe she’s in her twenties or thirties. She said to me, ‘Can you talk to your cousin [my mother], because I’ve got daughters now, I want to teach them about my grandfather’s story line’. We still connect ourselves through culture, through the ceremony times when we have our special ceremonies in December, got the initiation ceremony and all that. It really makes those young people think, because if they’ve got sons they’ve got to think about the cultural way of life, you know.*62

The contemporary timeframe of men’s business is a modern adaptation. In the past, male rites of passage were known to extend over weeks and months. Business was conducted in stages over a number of years, characterised as a ‘long-drawn out affair’ (Berndt & Berndt 1992, p. 212; Myers 2011, p. 91). Senior Warumungu man Lincoln made the comment that young men’s learning happens *‘usually just during the Christmas, you know, they haven’t got much time’.*63 Senior Arrernte women Penny also identifies a lack of time as a reason for ceremonial life contracting:

*Well, ‘time’ is what has killed off a lot of the bush activities, even ceremonies. Ceremonies have changed. So, it just seems to be changing all the time, you know, and I notice with taking young men out, it’s not the same anymore.*64

The issue of time was also echoed by a middle-aged Warumungu man, Simon, who expanded onto the subject of frequency:

*Our fellas are really good, all involved at Christmas time. [But we] Need to carry on every two to three months, instead of meeting up once every 12 months. Only every 12 months, [they] might forget about it, young people go back to school. Every two months we need to go out. Instead of doing it every Christmas time. Every two months, learning something different. Come ceremony time, they know the songlines and which area they are singing.*65

As a child, Simon grew up on a station and he makes the point that young men would ‘catch up’ on their learning of songs in single-men’s quarters after station work was completed.

*When I was at station, used to see old men and young men. After they knock off work, go straight to the men’s hut and sit down. That’s how they learnt. Then they’d get up next day*
4 / IEK practices and processes in young lives

and go do station work. Young people caught up with it this way. Now there’s no single-man hut where old men can sit down, only time we learn is Christmas time, ceremony time.66

Like the older generation, 23-year-old Levi has an opinion about ceremonial matters. Levi’s view on ‘time’ and ‘frequency’ and men’s business is at odds with the negative stereotypes of a disinterested youth.

Instead of having a week . . . I would rather see it go for about a month or more. Most of the time when we do have ceremonies, the old fellas are there, in that few weeks and then, they basically have a spell, and by the time you try and get a chance to get in and talk to them about your country and ask them about your country, they are basically exhausted.67

These issues will recur. I discuss the reasons for the ‘exhausted’ older generation and the ratio burden of teachers to learners in the next chapter.

I found in this study that women’s ceremonial life is even more truncated and interrupted than men’s ceremonial life. Young women struggle with issues of time, shame and other forces that cause concern for senior women.

A rich example comes from Dora who is about 77 years old and the matriarch of a large family. Her house at East Camp is the hub for children, grandchildren and great-grandchildren. Every year Dora attends the annual Women’s Law and Culture meetings, which bring together women from many different language groups across Central Australia. Dora is deeply concerned about what she sees as a lack of interest among young women in taking part in these annual meetings, and worries even more about young women’s participation in women’s business overall: young women attend but in ever lessening numbers.

At the end of 2011, the forthcoming 2012 Women’s Law and Culture meeting in August 2012 was on Dora’s mind. Dora wanted to make sure good numbers of young Eastern Arrernte women attended and she envisaged as a preliminary, preparatory, event ‘a training camp’. She wanted the ‘training’ camp to be held at Sandy Creek, a site where ‘training’ for the Yeperenye Federation Festival had also taken place.68 The Yeperenye Festival (as it is locally referred to) was ‘one of the biggest shows [Aboriginal cultural festivals] Australia has ever seen in scale and ambition’ (Finnane 2001b). By invoking it, Dora was indicating the kind of resurrection and

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66 Interviewed 4 July 2012.
67 Interviewed 14 March 2012.
68 The Yeperenye Federation Festival took place in 2000 and is so named due to funding from the Commonwealth Government to mark 100 years of Australian Government federation.
excitement she was seeking to foster, and it was a good analogy.

Rosalie Riley, Arrernte cultural adviser for the Yeperenye Festival’s women’s side, had said that uncovering the dances in preparation for the Yeperenye Festival was like ‘looking for yalke, bush onions [Cyperus bulbosus]. When we’re looking for yalke, we sit down and dig and dig and dig, see how many bush onions we can collect. This process has been a lot of digging around’ (Finnane 2001b). The festival helped ‘uncover’ traditional Arrernte dances that hadn’t been performed ‘since our great-great-grandfathers passed away’ (Finnane 2001a). The festival provided a purpose and was a resourced event that enabled Arrernte dances to be revitalised and performed anew.

The training camp for the 2001 Yeperenye Festival had been an effective learning experience for young Arrernte women. Dora had similar plans for the 2012 training camp. She felt that young women were participating less in women’s business due to feelings of embarrassment. Dora told me:

_They get shame to go to Women’s Law and Culture, shame to show breasts. They get frightened. [I] Want to teach them law and culture, how to dance, to know about country._ 69

In Tennant Creek, a similar concern over the reluctance of teenage girls to dance bare-chested saw the introduction of a novel concept. The young women were to perform as part of celebrating the launch of a compact disc (CD) of traditional Warumungu songs but did not want to perform in what they now saw as a naked state. To placate the younger women (and seal their involvement), a compromise was reached that involved painting black t-shirts with Dreaming designs (as they would have been painted onto dancers’ bodies) (Christen 2006, pp. 430–431). While the decision to wear the t-shirts was not arrived at easily, the result was that many young women danced on the day (Christen 2006, pp. 430–431).

However, as I will show in Chapter Seven, ‘shame’ and bare breasts are not the only reasons why young women are reluctant to participate in performances, either in Aboriginal-only audiences or as part of public showings. Rather, the reluctance is due to the tension between practice and performance. Young women are particularly challenged by not having enough time to learn.

This tension is a key and recurring theme of this thesis.

69 Field notes, 30 October 2011
Funerals occur frequently, more so than any other event, and are a cultural force in their own right (Glaskin, Tonkinson, Musharbash et al. 2008). Funerals bring people together and, with extended family coming together, family relationships are more readily explained to the younger generation. Relatives are able to be seen as real people and not some abstract person who lives far away. As Gwen summarises:

*A lot of people just learn from funerals, that’s one way that people learn a lot about the relationships of people and country.*

But to the mainstream public, funerals are not seen as tragic pedagogical platforms and a marking of the wounds in Indigenous lives, but as an indulgence that interferes with work and school.

Sadly, I have been to funerals for young and old before and during this research. Funerals are a regular part of my life as an Aboriginal member of the community and their frequency and ubiquity has meant their role in reasserting cultural cohesion has amplified (see also Glaskin et al. 2008 for an overview of bereavement and grieving practices in contemporary Aboriginal Australia). Today, sorry camps in Alice Springs are places that families come together; where they ‘sit down’ at one location, in the backyard of a suburban or town camp house and mourn. Receiving ‘bad news’ is the euphemism for learning that someone close or an extended family member has passed away (Musharbash 2008, p. 17).

As the bad news travels, people gather at the house of a close relative. Close family will enter the yard wailing. They will hold and hug relatives. Extended family and friends will shake hands to ‘finish up’. After the first day, it’s usually middle-aged nieces who will start organising the sorry camp and the gathering together of materials needed. Sleeping arrangements will be sorted out during this time. Close family groups position their swags or bedding together. Usually on the second day after receiving bad news, women cut their hair to express their grief.

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70 Interviewed 28 June 2012.

71 Traditional practices like sorry business has been described as ‘almost a bullshit process’. The comment was made by Warren Mundine, the Chair of the Prime Minister’s Indigenous Advisory Council. As an Aboriginal man from New South Wales, Mundine was widely condemned for his comments by Aboriginal leaders in the Northern Territory, but his views are not uncommon.

72 Two days before Christmas Day (December 2012), three people died in a car rollover on Larapinta Drive, the road connecting Alice Springs to Ntaria. Two females aged 26 and 32 and a 30-year-old male died instantly. Many adolescents and youth attended the funeral as well as taking part in the ‘finishing up’ practices leading up to the burials.
and show they are in mourning. It is usually the adolescent or granddaughters in their early twenties who are sent off to buy the sharp scissors (and who also cut their own and other’s hair), and to purchase black clothes for key female mourners, including black beanies to cover the head.

During this time, families pool together finances to buy food and other materials. Extended family members will take it in turn dropping off large pots of stew (or casserole) and rice or buying groceries and dropping them off. Possessions belonging to the deceased are given away following conventions brought into play at this time. Young people also take part in the ‘smoking’ or ‘finishing up’ process which involves walking through and around the house with a branch from the *apere* / river red gum (*Eucalyptus camaldulensis*), brushing it along the ground using a sweeping side-to-side action. Smoke from the *utnerrenge* / emu bush (*Erempholia longifolia*) can also be used to calm and steady the feelings of the bereaved. The right type of smoke fortifies people and makes them stronger in their mourning.

Like their elders, young people make a great deal of effort to travel and be at funerals. Dianne, a linguist with a 40-year history of working in Central Australia, observes:

> I think one thing that really shows up the continuing close family relationship is for funerals and you get huge numbers of young people at the funerals and all acting correctly. I mean, it’s really a striking thing and even lots of people that tend to move around all over the country, come back for the funerals of close relatives.

As Bob Tonkinson wryly states, ‘Funerals are, after all, by far the commonest contemporary ritual’ (Tonkinson 2007, p. 56). Sad as they are, funerals are thus a key learning time for young people. Sorry business is a time when multiple generations are in close contact, day and night. Given changes to family living arrangements, especially in urban areas, the intense time young people spend in sorry camps with extended family provides opportunities for learning new or extending their existing knowledge, especially about kin relationships and connections to country. Swag conversations, ‘bedtime stories’ or nighttime yarns are where information, explanation and elaboration are provided. Senior Western Arrernte man George describes these bedtime stories as ‘sleeping but listening.’

George adds that during this relaxed time ‘you play your mind’ and, in the context of talking about country connections and the living and

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73 Interviewed 20 June 2012.
the departed, young people think 'my grandmother, my grandfather walked through there.'

Sometimes at funerals young people might discover that they are related to someone they’ve thought of as just a friend. Jock, a senior Warumungu man, explains:

. . . a lot of families when they go to funerals and when they gather at Christmas times [men's ceremony], they look at each other . . . [they] hanged around with a certain person, knocked around without knowing they were actually related to them. Which is sad, too, to learn that when you go to a funeral.

As a form of conscious remembering, with the effort of suppression ensuring the deceased remains alive in the minds of the living, the deceased person’s name is no longer spoken and young people faithfully observe this practice, using the term kwementyaye instead of the deceased person’s name or replacing their first name with initials. Senior Arrernte woman Penny notes that, ‘Young people still do that [use kwementyaye] for the names of relations who have passed away, there’s still a certain amount of avoidance of the name’. Even towns will have their names changed; Alice Springs for some families is known as Kwementyaye Springs. Young people also avoid sharing photographs of the deceased, although this is changing (see Chapter Seven).

Young adults can also be responsible for planning the funeral arrangements of their own infant children. Young Eastern Arrernte husband and wife Oscar and Gloria know too well what this involves. They had a daughter who was born prematurely and only survived for a few days. This story is relevant in terms of the time it took to bury their daughter. Nearly six months later the baby was still in the Alice Springs Hospital morgue and they hadn’t had a chance to bury her. At first it was the expense – the $2500 burial fee being difficult to pull together for two young people on Centrelink, even with the $1200 funeral fund available through the Central Land Council. The delay in burying their daughter was also compounded by other deaths in Oscar and Gloria’s families. The Alice Springs Funeral Service now accepts Basics Cards, enabling people to spend the money that the government decrees should be for food on the business of burying their kin. Oscar and Gloria tell me they have been making regular payments to pay for the funeral, but it all takes time.

74 Interviewed 20 June 2012.
75 Interviewed 2 July 2012.
76 Sadly, the Alice Springs Hospital reported on 2 February 2015 that they have 17 babies unclaimed in the hospital, see http://www.abc.net.au/news/2015-02-02/bodies-of-17-babies-unclaimed-at-alice-springs-morgue/6063062.
The reliance on death and the interruptions of illness are not entirely in the negative. My research also revealed the ongoing importance of angangkere’s (traditional healers) and health practices use of plant-based medicines among young people.

### Traditional healing

Seventy per cent of young people who completed the questionnaire identified that when they were children they had been taken to see a traditional healer (see Table 5). As young adults, 42% have called on the services of traditional healers (see Table 6). Even though a higher percentage of young people saw a traditional healer as a child compared to when they are young adults (a reduction which matches the times people are able to go bush when they transition into adulthood and poverty pressures encroach), many are making decisions to continue this practice. Parenthood is also a key reason: young people are taking their babies and infants to see traditional healers. On numerous occasions I have witnessed young parents taking their babies or infant children to see a traditional healer if they believe their baby’s kwerrene (spirit) ‘has moved’ or ‘shifted.’ A baby’s kwerrene will move if they get a fright or hear a loud noise, and once their kwerrene moves the baby will become unsettled with nothing being able to soothe them, putting them in a dangerous position.

**Table 5. Many young people have grown up within a belief system that includes traditional healers. Responses to survey question 9: ‘When you were younger and you got sick, did anyone take you to see a ngangkari / ngangkare (traditional doctor / healer)?’ reveal that a majority (70%, n=150) saw a traditional healer.**

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>104</td>
<td>69.3%</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>22.0%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>13</td>
<td>8.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>150</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

77 The Arrernte word for spirit is *kwerrene* and it translates as ‘life, being, soul, spirit (of living beings). It is the source of vitality, well-being and sense of purpose’ (Henderson & Dobson 1994, p. 454).
Table 6. Experiences within a culturally derived belief system continue into young adulthood. Responses to survey question 21 indicate that under half (42%) of the young adults visited a traditional healer in one year.

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>64</td>
<td>43.2%</td>
</tr>
<tr>
<td>No</td>
<td>67</td>
<td>45.3%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>17</td>
<td>11.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>148</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Young mothers also continue the practice of ‘smoking’ their babies (see Photos 21 and 22). Young and old alike believe in the healing properties of smoke (see Photo 23). Arrernte people use the smoke from smouldering leaves of the utnerrenge / emu bush (*Eremophila longifolia*) to ‘smoke’ mothers and their newborns to strengthen the babies, heal the mother and increase milk supply (Dobson 2007) (see Photo 24).

Smoking involves digging a shallow pit in sandy soil for a small fire, onto which utnerrenge leaves are placed to make the healing smoke. One or more grandmothers, holding the baby a short distance above the smouldering leaves, will pass the baby through the soft smoke, carefully keeping any real heat away from the baby’s skin. (I return to the practice of smoking babies in Chapter Six). Twenty-four year old Sylvia tells me:

> My bebe [great-grandmother], she smoked him, when he was a little baby. We got leaves and red sand. Clean red sand from bush. So that baby wouldn’t get sick when he plays in the dirt. And she rubbed all his joints, so he could be strong. When he turned one and started walking, he didn’t practice, didn’t even fall, he just walked.78

Beliefs and values

Young people believe that their actions and language influence country: they continue to view the landscape as sentient.79 They speak about the uncanny feelings they get when they go to a strange place or how they will modify their behaviour in new country that they are visiting. Twenty-two-year-old Emma is even mindful of the language she uses when visiting new or strange country:

> ...sometimes when you go to someone else’s country, and if you’re near a lake or something,
Photos 21 and 22. A grandmother is ‘smoking’ a grandson by passing him gently through the smoke of smouldering leaves. These leaves are from the *utnerrenge* / emu bush (*Eremophila longifolia*). Motherhood attracts young mothers to culturally based health and healing practices.
Emma speaks English because she assumes that that is the language the spirit is least likely to know and therefore there is a better chance of staying below the ‘spirit radar’. Similarly, for Senior Warumungu man Lincoln, maintaining language is a way of talking to the country properly; when you are in the right place and it is safe to be recognised:

. . . we reminding people that our ancestors are still alive and, you know, they can hear us and we need to talk in language – wherever we go to talk in language, so the spirits can have a listen to you and know, this is my family.\(^{81}\)

Young adults continue to understand that country is animate and that the spirits of country are least likely to understand English and least likely to recognise you as family and belonging to

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\(^{80}\) Interviewed 22 October 2012.

\(^{81}\) Interviewed 4 July 2012.
that country if you don’t speak the language of that country.

The spirits of country are shown respect by ensuring their behaviour, if it gets rowdy, does not go ‘overboard’. They will ‘growl’ each other if there’s too much loud laughter when they are out bush, if the laughter is ‘over the mark’, especially at night.82 Seventeen-year-old Ellen tells me that, out bush, you are ‘Not allowed to fight and you can’t laugh real loud, you can only laugh for a little while, but you can’t keep on going’.

For young adults, a continuity is that IEK is premised on respectful human conduct with violations dealt with through ‘conscious forces of the environment’ (Nelson 1983, p. 27; Sherry & Myers 2002). People are more circumscribed out bush; polite behaviour is expected between individuals and the ancestral spirit domain. On one hunting trip, for example, a young woman

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82 Field notes 23 September 2011.
83 Interviewed 12 April 2012.
started a number of minor arguments that grew into a major upset. Relationships between everyone grew tense, with people stewing in silent anger, profoundly on edge. The young woman’s behaviour and attitude was widely critiqued and as the ‘troublemaker’ she was sent back to town. Her mother-in-law had her driven back to town while the rest of the family stayed on as planned. This course of action was taken so that the whole hunting trip was not called off and ruined by ending prematurely and to ensure respectful behaviour was shown to each other and to country that listens and responds.

Adding to previous research showing that young Aboriginal adults in Central Australia are holding onto their linguistic and cultural identities (Kral 2012; Eickelkamp 2011) and the critical role of language in the construction of social identity (cf. Ochs 1993), this research also shows that language for young people in Central Australia is an important marker of social identity. Most young people who participated in this research can speak or understand an Aboriginal language (see Tables 7 and 8). It was commonly expressed to me from a range of young people that they are aware of how ‘lucky’ they are ‘to have language’ in comparison to other young people who aren’t so fortunate.84 Emma provides a good summary, telling me:

... it’s a good thing to keep your language and culture and because I’ve got a few friends that lost all that, and they always tell me how lucky I am.85

Table 7. The majority (72%) of survey respondents spoke an Aboriginal language (survey question 23, n=148). IEK is deeply encoded in Aboriginal languages.

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, I can speak and understand a language or languages</td>
<td>106</td>
<td>71.6%</td>
</tr>
<tr>
<td>Yes, I understand a language or languages (but don’t speak it)</td>
<td>17</td>
<td>11.5%</td>
</tr>
<tr>
<td>I know some words in language</td>
<td>18</td>
<td>12.2%</td>
</tr>
<tr>
<td>No, I can’t speak language</td>
<td>4</td>
<td>2.7%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>148</td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

84 Interview data 22 October 2012.  
85 Interview data 22 October 2012.
Table 8. At least thirteen different languages were identified as spoken by young people interviewed in this study. Some people identified that they spoke multiple Aboriginal languages.

<table>
<thead>
<tr>
<th>Language spoken</th>
<th>Number of speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyawarr</td>
<td>14</td>
</tr>
<tr>
<td>Anmatyerr</td>
<td>20</td>
</tr>
<tr>
<td>Arrernte</td>
<td>98</td>
</tr>
<tr>
<td>Gurindji</td>
<td>2</td>
</tr>
<tr>
<td>Kaytetye</td>
<td>5</td>
</tr>
<tr>
<td>Luritja</td>
<td>44</td>
</tr>
<tr>
<td>Ngaanyatjarra / Ngaatjatjarra</td>
<td>2</td>
</tr>
<tr>
<td>Pertame</td>
<td>3</td>
</tr>
<tr>
<td>Pintubi</td>
<td>3</td>
</tr>
<tr>
<td>Pitjantjatjara</td>
<td>32</td>
</tr>
<tr>
<td>Waramungu</td>
<td>8</td>
</tr>
<tr>
<td>Warlpiri</td>
<td>30</td>
</tr>
<tr>
<td>Yankunytjatjara</td>
<td>13</td>
</tr>
<tr>
<td>Don’t know/ don’t want to say</td>
<td>7</td>
</tr>
<tr>
<td>English only</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
</tbody>
</table>

While young people are proud to be able to speak their language, the older generation have the opinion that this language has been corrupted by youthful shortening of words and borrowing of words from English and neighbouring languages (cf. Langlois 2004; O'Shannessy 2005). In the context of relentless media portraits of the dire straits of young people in rural and remote Australia, language facility is a proud attribute that the nation could join young people in celebrating.

### The Dreaming

In Central Australia, a foundational cultural belief is that cultural practices were not invented by humans, for both people and practices are part of a ‘single, unchanging, timeless source’ – the Dreaming (Myers 1991, p. 52, Bradley 2001, pp.295–308). Australian anthropologist David Brooks, who worked with young Ngaanyatjarra men in the Western Desert, shows that the Tjukurrpa / Dreaming is integral to youth self-perceptions and orientations (Brooks 2011, pp. 199–210). My research contributes a new perspective to matters relating to youth, IEK and

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86 Tjukurrpa is the Western Desert equivalent of the Arandic Altyerre.
the Dreaming in light of the perceived view of the older generation that young people have ‘no story’ which translates as ‘no Dreaming anymore’. While young people don’t have the same experience of the Dreaming compared to the older generation, the Dreaming continues to inform their beliefs, values and practices. The difficulty for young Aboriginal people is that they are growing up with the everyday practices, social organisation and ceremonial and ritual structures that connected the Dreaming, people and country now disconnected from each other. This unbundling has been wrought by dispossession and colonisation. For IEK learning, connecting the parts that make up the whole is a challenge in the 21st century.

In Australian anthropology, the relationship between children and young people and the Dreaming is increasingly a subject of research interest (Eickelkamp 2011, pp. 109–111, Brooks 2011, pp. 199–208). My research shows that the Dreaming continues to shape the values, beliefs and practices of young people in relationship to the environment and broader cultural understandings. When young Arrernte men cook and prepare kangaroo, they do it in a certain way. When asked why, their reply is ‘because that’s the Law’, is a direct reference to the Dreaming.87 I have observed that during pregnancy and childbirth young women and men observe principles of respect and avoidance along gender lines. They are following the principles of the Dreaming. The ethics of the Altyerre are validated socially; its rules and codes of behaviour are a social process, enacted through social interactions, including the use of natural resources.

The Dreaming continues to be a protective factor and a guiding feature in how young people behave, understand and practice IEK in contemporary times. Despite demographic upheavals, economic transformations, changes to lifestyles and marginalisation from country, the principles of the Dreaming continue to be relevant to Aboriginal youth. While young adults relate to the Dreaming in ways that are different to their elderly family members, the Dreaming is still part of their consciousness.88

To explore this further, I turn to an example of contemporary youth Altyerre consciousness in the heart of Alice Springs. The landscape in and around the town of Alice Springs has a creative ancestral spirit and totemic association (Brooks 1991, cf. Spencer & Gillen 1927). For

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87 Field notes, 16 July 2011.
88 In writing about the social worlds of young people in the Ngaanyatjarra lands to the West of Alice Springs, Brooks observes that there is ‘Tjukurpa-thinking’ in everyday life (2011, p. 204–206).
Arrernte people, three caterpillar ancestors – the Yeperenye, Utnerrengatye and Ntyarlke – were the major creative forces for Alice Springs, forming the distinctive MacDonnell Ranges, which border the southern edge of the town, from their slain bodies (Brooks 1991, pp. 5–6, Rubuntja & Green 2002, pp. 47–48, Henderson and Dobson 1994, p. 343). Of these caterpillars, the Yeperenye is the most important (Brooks 1991, p. 5). The Arrernte language name Yeperenye (or Ayepe-arenye) derives from ayepe (a tar vine species, Boerhavia spp.) and arenye (meaning ‘belonging to’). The ayepe is the favourite, characteristic food of the Yeperenye caterpillar (see Photos 25 and 26).

Twenty-three-year-old Kelly-Anne is an art student at the Batcher Institute of Indigenous Tertiary Education (BIITE) in Alice Springs. Students were asked to create a ‘selfie’ print (that is, a picture from a photograph that one takes of oneself, typically using a smartphone or some other form of digital camera connected to social media). Kelly-Anne's print is titled 'Yipirinya Dreaming Girl' (see Figure 10). In the print, she is the Yipirinya Dreaming Girl sitting atop the Yeperenye caterpillar which itself is resting on a cloud. Kelly-Anne represents her everyday self, her sunglasses, sneakers and a watch, plus polo shirt and leggings. Attached to her back are delicate wings that have a stylised design of lines and dots. This is significant as the lifecycle of the Yeperenye caterpillar sees it pupate and emerge as a moth (Ochrogaster lunifera complex).

Her artwork captures not only the ecological transformations and processes of the Yeperenye caterpillar, but her identity as a young woman in Alice Springs and the significance of the Yeperenye caterpillar in relationship to her self-identity.

I have consistently found that while IEK can no longer be part of everyday life in a fluid way (for any generation), it continues to remain a central part of life for young Aboriginal people in Central Australia. IEK remains a succession of events or a suite of activities that occurs over a 12-month period that has been modified and adapted to fit the Western 12-month calendar, 24-hour clock and a matrix of material co-dependencies. The calendar of IEK is further broken down to 12 weeks of school holidays, 13 public holidays and a number of spontaneous hunting

89 BIITE (commonly referred to as Batchelor Institute) is an Indigenous education provider offering tertiary and vocational and education training to Aboriginal and Torres Strait Islander students. Batchelor began in the NT in the late 1960s as a small annex of a local college in Darwin, providing programs for Aboriginal teacher aides in community schools. See http://www.batchelor.edu.au/.
90 There are various spellings used for Yeperenye (Brooks 1991, p. 6), including Ayeparenye (Rubuntja & Green 2002, p. 47), Ayepe-arenye (Henderson & Dobson 1994, p. 343) and Yipirinya (a local Aboriginal independent school is named Yipirinya School).
Photos 25 and 26. For Arrernte people, three caterpillar ancestors shaped the landscapes and sites in and around Alice Springs. One of these three caterpillar species was the Yeperenyey caterpillar (pictured). These creative ancestral spirits continue to be part of youth consciousness in Alice Springs. People see the links between the Yeperenyey caterpillar and moth. (Photos © Mike Gillam.)
trips on weekends in the few months of the year when the weather, cash, working cars and the right coalition of people can be mustered. What binds hunting, subsistence and ceremonial activities today is that they are more and more ‘events’ outside of everyday life. They are literally extra-ordinary. In the next chapter I address family relationships and the socialisation of knowledge, examining changes to teaching roles as a result of demographic transformations as well as identifying continuities, as additional adjustments beyond the temporal in the practice of IEK.

This chapter has shown that hunting, ceremonial life, use of plants for foods and healing, along with a vibrant sense that country is animate, are part of the ‘cultural schemas’ of youth (Ortner 1989, p. 60). At the same time, and as following chapters will elaborate, young people have introduced many adjustments to IEK and the processes of its transmission.
The enculturation processes by which Aboriginal youth come to know IEK cannot be properly grasped without attention to the socialisation of IEK-related practices. Children and adolescents do not ‘acquire culture’ or ‘acquire IEK’. Instead, they are socialised into the habits and routines of their families over successive generations (Rogoff 1990; Lave 1988). Socialisation into IEK takes place through an apprenticeship into practices through observation and guided participation in family and broader community activities (see also Rogoff, Mistry, Goncu et al. 1993). In this way, young adults acquire ‘a set of practices’ related to IEK and cultural processes (Schieffelin 1990, p. 15). A pivotal emphasis of this dissertation, theoretically and empirically, is that practice is fundamental to learning (Lave & Wenger 1991). While the oral nature of knowledge transmission has long been emphasised in Aboriginal Australia, less articulated, but just as important, is the place of practice. Aboriginal people do not separate knowledge from practice: cultural knowledge, environmental knowledge and embodied practices are entwined (Holmes 2010, p. 81). As previously described, IEK does not exist as a body of knowledge separate from the social world, yet it is often treated as such (Berkes, Kislalioglu, Folke et al. 1998). In this chapter I explore contemporary social systems, including attention to demographic transitions and disappearances, in order to understand practice. I show that while there is continuity in gendered teaching roles consistent with Traditional Knowledge socialisation processes, there are also modifications due to demographic change. To begin I introduce the key themes of demographic change.
Anthropologists have long been interested in the relationship between demographic patterns and culture, for the light this throws on social reproduction (Cavalli-Sforza & Feldman 1981, pp. 180–189; Hamilton 1981; Burbank 1988, p. 19; Hewlett 1991). In the 1930s, AP Elkin, then Professor of Anthropology at the University of Sydney, predicted a ‘demographic cataclysm’ for Indigenous Australia (in Rowse 1998, p. 38). Elkin’s predication was based on ‘depopulation’, ‘high infant mortality’ and a ‘fall in birth rate’ (Rowse 1998, p. 38). The devastatingly poor living conditions, combined with malnutrition and high infant mortality rates at the time, provided the grounds for Elkin’s conclusion that Aboriginal people were a dying population (Read 1995, pp. 277–279).

Elkin got it somewhat right in terms of demographic devastation, but not for the reasons he predicted. While Australia’s non-Aboriginal population, along with those in most modern Western countries, is characterised by decreasing birth rates and increasingly aging populations, the opposite is true in Indigenous Australia (Ruddick 2003; Jackson 2008). The Aboriginal population has high birth rates and low life expectancy, and thus a youthful and fast-growing population (Australian Institute of Health and Welfare 2015, p. 10) (see Figure 11). Almost 60% of the Indigenous population is aged 25 and younger, compared with the non-Indigenous equivalent of 32%.

Previous research has shown that demographic change in the last 50 years has ‘pushed Aboriginal society out of shape’, leaving ‘gaping holes in the genealogical structure’ (Beckett 2010, p. 43; Brooks 2011, p. 193). This demographic backdrop to Aboriginal Australia has fundamental consequences for knowledge transmission and reproduction. Statistically, Aboriginal men aged 60 and over are fewer in numbers than Aboriginal women in the same age group (Australian Bureau of Statistics 2011). After the Second World War, the Aboriginal population in the Northern Territory also saw a decline in men aged 45–59 relative to the number of men aged 15–29 years (Robinson 2012). By the mid 1960s, for every 100 younger males there were only 38 older males. By 2001, this had reduced still further, with 31.5 older males for every 100 younger males (Robinson 2012). While statistical portraits reflect the demographic profile of Indigenous Australia, ethnographic research helps reveal the lived experience behind the
numbers. An examination of social relationships and gendered knowledge – what has endured, what has withered – is thus fundamental to understanding the social reproduction of IEK.

**Who are young people learning from?**

Close connections to family and country have been described as the most important foundations of Aboriginal life (Myers 1991). Yet the reality is that Aboriginal families in Central Australia face many difficulties that are impacting on the integrity of family life and the ability to access distant country from a sedentary and asset-poor base. Many Aboriginal children and young adults are growing up without key adults consistently present due to high mortality rates and extremely high Indigenous incarceration levels (Steering Committee for the Review of Government Service Provision 2011). The social and economic circumstances of
families interact with and exacerbate an already tough life situation, all of which aggravates the formidable challenges to maintaining IEK. Yet, despite this, there is resilience within Aboriginal families, a resilience grounded within the continuing emphasis and incorporation of values associated with Aboriginal kinship systems. The importance that young and old place on family relationships cannot be emphasised enough. Gwen tells me, ‘Family and family relationships, it must be about 80% of what people talk about.’

As this quote indicates, for young people, unravelling ‘who’ they are related to and ‘how’ they are related are topics that figure highly in everyday calculations. Indeed, Aboriginal families are ‘larger’ and ‘structurally more complex’ compared with the non-Aboriginal population (Weston & Gray 2006, p. 103). Aboriginal youth tend to have a family life based on a wider range of family relationships compared to that of other Australians in their age group (Morphy 2007). They are also more likely to live in extended and multi-household families (Bourke & Bourke 1995; Saggers & Sims 2005). In contemporary Australia:

The complex familial structures of Indigenous societies are one of their most enduring aspects, persisting in communities in ‘settled’ Australia as well as in remote, traditionally oriented communities (Morphy 2007, p. 31).

Within the large and complex modern Aboriginal families in Alice Springs and Tennant Creek, I have found resilience in key teaching relationships. Kin who were responsible for teaching in times past are also largely responsible for socialisation of IEK practices now. Young women continue to learn from female relatives, and young men from their male relatives. Despite this continuity, I have also found that there is now a blurring of gendered roles and responsibilities; it is this distortion which I explore in this chapter. In addition, my research shows that a new social category exists in the socialisation process of IEK: that of the helping white. Australian anthropologist Tess Lea coined the term ‘helping whites’ in her critical ethnography of white public servants in the Northern Territory’s Department of Health who laboured on Aboriginal health issues (Lea 2008, pp. 3–20). I borrow the term ‘helping whites’ in this dissertation (discussed further in the next chapter), a term which was categorised in my survey data as ‘professional’.

91 Interviewed 28 June 2012.
92 I am aware this is something of a generalisation, based on the idea that ‘non-Aboriginal’ is a proxy for Anglo-Celtic family groups, and not, for instance, eastern Europeans, Chinese, Papua New Guineans, or people from the Philippines (to suggest but a few of the ethnic groupings whose migrations to Australia radically altered the more mono-cultural colonial beginnings). The point is rather that Aboriginal families are complexly configured and their kin networks can be tracked across the continent in many cases.
The continuity of ‘looking after’ relationships

My research has found that that grandmothers, aunts and uncles continue to play an important socialising influence in the lives of young people. These relationships remain fundamental to how IEK is acquired in contemporary times. For Aboriginal people, it is no accident that the grandparent / grandchild relationship is a close one: like all kinship relationships, it was determined in the Dreaming (Turner & McDonald 2010). Generational groupings within Aboriginal kinship systems are critical to socialisation of practices and therefore to knowledge transmission.93 The Arrernte kinship system recognises four lines of descent through each grandparent and two generation moieties (Green 1998). Warumungu people recognise two moieties that divide into eight skin groups (Christen 2009, p. 269). Grandparents and grandchildren are in the same generational moiety. Also relevant to socialisation is the classificatory nature of Aboriginal kinship systems. Aboriginal kinship systems code the relations between people based on actual genealogical links as well as membership of skin groups and moieties (Green 1998, pp. 8–20).94 What this means in practice is a closeness between aunts and uncles and nieces and nephews: these are critical ‘looking-after relationships’ (Myers 1991). Fred Myers uses the Pintupi term *kanyininpa*, meaning ‘holding’ or ‘looking after’ to describe the nurturance provided by close kin (Myers 1991, pp. 220–221, see also Fietz 2008, Hamilton 1981). Aunts and uncles have a particular interest in the well-being of their nieces and nephews (Turner & McDonald 2010, p. 102). As a result they have an important role to play in identity formation and socialisation of knowledge. The aunt/uncle and niece/nephew relationship is described in a book on Arrernte culture, *Iwenhe Tyerrtye – What it Means to be an Aboriginal*:

> Sometimes Aboriginal people see that the closest relationship you can have is for your alere mape, your nieces and nephews. And [a woman’s] own children are very close to [her] brothers, or their father’s sisters. (Turner & McDonald 2010, p. 102)

The closeness and informality of young people’s relationship with aunts and uncles is countered by a more formal relationship with parents (Turner & McDonald 2010, p. 102). During his fieldwork with the Pintupi people in the Western Desert, Myers observed what he called the “strange”

93 Veronica Dobson and John Henderson (2013) provide a detailed overview of Arrernte kinship in *Anpernirrentye Kin and Skin – Talking about family in Arrernte*.

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affective distance of adolescent boys towards their fathers (and mothers) . . . so much so . . . that I was sometimes surprised that a person we were discussing was their father!’ (Myers 2011, p. 85).

**Socialisation of IEK practices for young women**

For young women, grandmothers and aunties have traditionally been important teachers in the socialisation of knowledge (Turner & McDonald 2010, Dobson & Henderson 2013). In Aboriginal Australia, amid all the social upheavals and demographic fracturing, the role of grandmothers and aunties remains a constant feature in young women’s lives. With an easy smile and deep dimples, Anna (a 19-year-old Western Arrernte woman) tells me:

*My nanna probably showed me everything. Well, she’d make us go for a walk out in the bush to look for the right tree [artery / mulga tree, *Acacia aneura*] where the ants was to see where to start digging yerrampe [honeyants]. She would make us sit down with her and tell us in language what to do, and in that way talking to us in language, because – well I only speak English but I can understand it [Arrernte]. She’d be talking to us step by step and when we’d find it [the nest] she showed us how to clear the spot and dig lightly, and then until we found the honeyants, she was there. My aunties were there for support, but I mostly learnt from my nannas.*

Grandmothers also remain key teachers in ceremonial matters. Long-term Central Australian resident Gemma reflects:

*Grandmothers are the ones that can talk about women’s business, for instance, with the granddaughters more appropriately than mothers can . . . It’s grandmothers that teach the girls, and they do.*

Patty, a 40-year-old who lives at Santa Teresa, succinctly describes the grandparent and grandchild relationship:

*Grandfathers and grandmothers important for them you know, growing them up. Teaching them. Grandparents are really main ones for them. It was always like that. Well, sometimes young people can’t understand the parents. You know when parents are telling them off, they don’t listen to their parents. They like a boss for parents now, today. They just want to do their own things. Not to listen to parents. And when there’s grandfathers and grandmother, they listen.*

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95 There is an extensive examination on the role of grandmothers in the evolutionary and anthropological literature. See, for representative examples, Scolza (2009); Scolza & Bliege Bird (2008); Mace (2000); Hrdy (2005); Hawkes et al. (1998); Hawkes, O’connell & Jones (1997).

96 Interviewed 16 August 2012.

97 Interviewed 11 September 2011.

98 Interviewed 14 June 2012.
When surveyed, young women identify that as children they went out bush the most with and learnt the most from their grandmothers and aunts (see Figures 12 and 13). This quote by teenage mum Alison is a summary of relationships young women spoke about when interviewed:

*We’d go dig honeyants or witchetty grubs, go hunting for goannas. I’d go with my grandmother, cousins and aunts.*

Each ‘aunty’ relationship has its own nuanced character and associated teaching roles and responsibilities. As 19-year-old Cathy succinctly summarises, ‘Your parents know you, but an auntie might know you better.’ She elaborates by adding:

*I learnt from older cousins, definitely for some things, and aunts and nanas for other things. It just depends. One aunty or nanna might like digging honeyants more, and one might go in for something else more. So it depends who really is more interested or whose role it was.*

For middle-aged women, aunts have also been key to socialisation of knowledge. Marika, an Arrernte woman in her early forties, tells me:

*I learnt from my aunty. I learnt from her, going out camping, going out bush, learn different things. That’s why I know all the songs now, what my aunty sings, because I learnt from when I was a little kid.*

**Motherhood intensifies IEK practice**

I met Eva on the town council lawns, a popular place for Aboriginal people to simply sit and view the world. The lawns are cool and shady, setback enough so you don’t stand out like a sore thumb as you observe Alice people passing in cars, walking or on bikes, going by. Finding a public place to gather, be it a brick wall, a park bench or a shady veranda, is especially difficult if you are Aboriginal (see also Lea, Young, Markham et al. 2012). For new visitors to Alice Springs, Aboriginal people are highly visible; for the tourism industry and other regulators, Aboriginal people have too much of a public presence. People are always getting moved on by security guards in shopping centres as a form of commercial policing, by Alice Springs Town Council rangers as a form of local government policing, or by the Northern Territory Police

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99 Interviewed 22 October 2012.
100 Interviewed 22 October 2012.
101 Interviewed 22 October 2012.
102 Interviewed 16 May 2012.
Figure 12. Survey question 7 (n=148 respondents, 78 female, 70 male) showed that young Aboriginal women went on bush trips most frequently with their grandmothers and aunties, whereas, young men identified that they went on bush trips most frequently with their uncles and professionals.

Figure 13. Survey question 20 (n=148 respondents, 78 female, 70 male) showed that young Aboriginal women had been taught mostly by their grandmothers. Other people also contributed to their learning. Young men had been taught mostly by their uncles, including younger uncles. Interestingly, the professionals who supported the trips were not identified as teachers.
who regularly patrol the Todd River lawns.\textsuperscript{103}

Eva grew up in Alice Springs and during her childhood would intermittently visit and stay with her grandparents who lived to the west of her home town. She remembers going hunting and hearing old people singing songs for country and ‘really loving it.’\textsuperscript{104} She also learnt about how she was connected to country and family:

\begin{quote}
[It was explained to me] who was from our country, going right back, right back, like for one community to another community, how we was related to each other and stuff like that, from one Dreaming, one sacred site place, to another.\textsuperscript{105}
\end{quote}

Eva’s adolescence was spent in Alice, with all the risks associated with town life amplified, and opportunities to be on country lessened, as she and her peers got caught up with drinking, drugs and walking the streets. She told me that ‘drinking, doing drugs’ and ‘walking the streets’ are big problems for young people in Alice Springs. Eva admitted that this was her profile too until motherhood intervened:

\begin{quote}
. . . ‘cause I had my baby boy when I was only about 14. That’s the reason that I got changed, didn’t want to walk in the streets. That’s the reason that I stopped like smoking and drinking.\textsuperscript{106}
\end{quote}

Eva went on to say that:

\begin{quote}
All these other young kids, they all loose, drinking, doing lots of bad stuff; it’s really bad now. Kids who’s been walking in the streets, drinking, fighting, causing problems. ‘Cause I’ve gone through that, and I didn’t like it, the way I was walking down the streets and all that. I’m trying to help young people [family members] not to get pregnant in a young age; it’s really sad and they think it’s fun doing all these stuff. It’s not.\textsuperscript{107}
\end{quote}

While early teenage pregnancy is not ‘fun’, Eva also believes pregnancy has the effect of ‘settling down’ girls who have been walking the streets and drinking and that, once they settle down, they are more interested in bush stuff.\textsuperscript{108} Bush links are also her remedy for young people walking the streets:

\begin{itemize}
\item \textsuperscript{103} Alice Springs is situated on a flood plain of the Todd River. The Todd River is an ephemeral river, a usually dry river that can quickly flood from bank to bank with heavy rain in the catchment area to the north. The Todd River Tavern (a pub and drive-through bottle shop) is close to the river (separated by a road and set of traffic lights). The Todd River lawns (the river bank) is a popular area for families to sit and wait, either for people to come out of the tavern, or as resting place (for example) in between shopping or hospital appointments.
\item \textsuperscript{104} Interviewed 10 October 2012.
\item \textsuperscript{105} Interviewed 10 October 2012.
\item \textsuperscript{106} Interviewed 10 October 2012.
\item \textsuperscript{107} Interviewed 10 October 2012.
\item \textsuperscript{108} Research by Fergusson, Boden & Horwood (2012) suggest a relationship between motherhood and a reduction in alcohol use.
\end{itemize}
Like, if one of these kids that are walking the streets, if they have family from bush, you
know they [the relatives] should pick them up and take them out bush.\textsuperscript{109}

Motherhood for 22-year-old single mother Emma is also a positive. Emma, who has two
daughters – aged one and four – is already thinking about the importance of teaching her girls,
as well as their ability as a future mother to teach her grandchildren.

\textit{JD: Is Aboriginal culture important to you?}

\textit{Emma: Yes. I want to learn everything so I can teach my daughters.}

\textit{JD: Do you think it would add to their life?}

\textit{Emma: Yep, and just mainly the cultural bit. Just like learning the Dreaming stories so
they know where they came from, so in the future if anybody ever asks them, 'Do you
know the Dreaming for your country and where are you from – like what makes you?' So
they can say, 'Yeah, I know'. And so they can be confident.}

\textit{JD: Is it harder to go out now that you’ve got two small children?}

\textit{Emma: No. It’s actually better now that I’ve got two kids, because I know what I want to
do – so I can learn off my mum before they get older, so I can teach them. So my grandkids
know, so they can learn off my two daughters.}

Despite the widespread perception that youth attitudes are fundamentally different to that of
older people – to the point of indifference – Emma’s comments begin to show that this is incor-
rect. Emma is already thinking about, and attending to, the maintenance of knowledge for her
future grandchildren.

\textbf{Socialisation of IEK practices for young men}

For young men, the male relatives who are the most involved with the socialisation of knowl-
edge is summed up by Oscar when he tells me that he goes hunting for ‘kangaroo and emu’
with ‘my uncles, father, brother and cousins.’\textsuperscript{110} Significantly, ‘uncles’ are the first relationship
type identified by Oscar. Sam likewise tells me his learning ‘started off with my dad, and then
my uncle sort of taught me how to make things properly.’\textsuperscript{111} Oscar goes on to tell me that coming
close in importance to uncles are his brothers and cousin-brothers; both are part of an
expansive youthful peer group who statistically outnumber older male relatives.

\textsuperscript{109} Interviewed 10 October 2012.
\textsuperscript{110} Interviewed 11 April 2012.
\textsuperscript{111} Interviewed 4 July 2012.
Perhaps one of my most challenging interviews was with Adam, a naturally quiet young Eastern Arrernte man (quiet even within his own family group).\(^{112}\)

*JD:* When you go hunting, who do you go hunting with?

*Adam:* Brothers and uncles.

*JD:* What do you go hunting for?

*Adam:* Kangaroo, turkey, emu.

*JD:* Who has taught the most things about hunting?

*Adam:* Uncles.

Despite a brevity of words, Adam’s interview reveals a general truth about the continuity of male teaching roles. Uncles are key to young men’s socialisation around hunting, hunting being a key reflection of IEK (Turner et al. 2000; Nadasdy 2003). Similarly, like Oscar, Adam also references a peer group in relationship to practice (see Photo 27). Young men like Oscar and Adam belong to a peer group made up of large groupings of similarly aged male kin tracked flexibly through patrilineal or matrilineal descent (cf. Sutton 1998, and the new form of Aboriginal social organisation, the cognatice descent group). It is through peer group practices, particularly hunting (and playing football), that young men establish meaningful social identities.\(^{113}\)

Further north, on the edge of the mangroves of the Joseph Bonaparte Gulf, is the Aboriginal township of Wadeye.\(^{114}\) Here, young men are establishing identities through group membership aligned to gangs called ‘Evil’ or ‘Priest’ (Mansfield 2013). Gang membership is also affiliated through patterns of kin relatedness (Mansfield 2013, p. 155, see also Brady 1992 & Martin 1993 for gangs on remote Aboriginal communities). The social organisation of young men at Wadeye, including how ‘knowledge’ is configured, is done in ‘roughly equal relationships – symmetrical dyads of brother-brother, cousin-cousin’ (Mansfield 2013. p. 162):

This might be contrasted with more hierarchical forms of social organisation in which symmetrical dyads are combined with asymmetrical relationships of seniority and knowledge. (Mansfield 2013. p. 162)

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112 Adam’s silence could also be gender related or due to the fact that despite a level of familiarity with me, I was still a stranger. Being an Aboriginal researcher doesn’t mean people will automatically feel comfortable with you, despite the cultural understandings you bring to personal interactions.

113 Football is core to young men’s interests; however, I don’t address football in detail in this thesis. Football takes priority in community life; for example, meetings are planned around football matches and travel to attend football games (Miller & Rainow 1997, p. 97).

114 Wadeye was originally founded as the Port Keats Mission in 1935. It is one of Australia’s largest Aboriginal towns, with a population of about 2500 (Taylor 2010, p. 8).
In Central Australia, the peer group is characterised by symmetrical knowledge between peers as well as asymmetrical knowledge between peers due to variability of family social histories. My interview, observational and survey data shows that young adults regularly point to ‘cousins’ or ‘older cousins’ as teaching guides or as the key people to turn to, showing them how to do things through their own actions and explanation.

The rise of the peer group in Aboriginal male socialisation is due to the demographic disappearances of middle-aged and senior men. Fred Myers, in an article on Pintupi fathers and sons, makes the observation:

. . . there may now be a lack of sufficient attention from older men for their younger charges, a decline in ceremonial transmission occasioned both by a demographic decline in numbers of middle-aged men and by their pursuit of interests (in town or elsewhere) that draw their energies away from the activities I described as ‘social production.’ (Myers 2011, pp. 86–87)

To this he further adds:

Without more systematic observational data, I should acknowledge that I cannot say whether
support from kin other than parents – such as brothers, sisters and so on – can substitute or make up for losses, or in what conditions this might be so. (Myers 2011, p. 87)

My observational and survey data shows that support for young men is coming from kin ‘other than parents’: uncles and a peer group made up of brothers and cousin-brothers are key relationships in the contemporary social reproduction of IEK practices and processes. The survey shows that young men more often identify an uncle as their main teacher compared to any other relationship category: 15% identify that they have learnt the most from their father, compared to 63% who have learnt the most from an uncle (see Figure 13, page 114).

**Young male agency**

Social relationships are key to young people's participation in ceremonial life and acquiring IEK. However, if these immediate family relationships are weak, young people have to develop strategies of substitution and seek out for themselves extended family members. Levi points to the difficulties of participating in ceremonial life if family members don't fulfil their social obligations, if they 'are not there for you'. For young Aboriginal men, uncles are key teachers in life and have important ceremonial roles:

> It's like my own uncle, I don't ask him about country or knowledge. He basically just looks at me and laughs. It's like he shows no interest. It's like, ceremony time, when I was going through, thing, Law, he was supposed to be the uncle there for me, but he wasn't.  

Reflecting on his own and other young lives, Levi points out that the 'lifestyle they grew up in' can set young people on a pathway of self-destruction:

> Some young fellas, their mother and father are full on alcoholics and by the time they really want to do things and by the time mothers and fathers start realising, it's too late, 'cause the young fellas has already decided and went the other way. Stealing. Drinking.

For IEK learning, he has actively created and steered social strategies to suit his learning needs. As he tells me:

> There's other grandfather's and uncles I can learn from. They open your mind up and give you more interest about learning culture and going bush. I love going bush and being out. When you are going for a drive and you see a plant or animal, you always talk about it, you always think of the names and stuff like that. You always think about the old trails

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115 Interviewed 14 March 2012.
116 Interviewed 14 March 2012.
that the old fellas used to walk.\footnote{Interviewed 14 March 2012.}

Levi can draw on extended social networks to overcome the lack of IEK learning support from his immediate male relatives. He can exert influence and his actions can help determine learning outcomes.

For young men, the presence or not of older male relations has the ability to attract or repel them from going on family bush trips. As middle-aged woman Patty observes:

\begin{quote}
When they [young men] see all family going out and no-one staying at home, they be by their self. When they see all of us going out [women and men], they come too – ‘Oh, I’m going too’, they’re really excited running around and getting ready. If they see only ladies, they stop back, they don’t want to go. When they see mens they come too.\footnote{Interviewed 14 June 2012}
\end{quote}

Zach is 17 years old. He gets around in baggy American basketball gear: oversized clothes that overwhelm his short, wiry frame. A cap covers his curly black hair; the visor is pulled down to cover his eyes, a fashion statement and security screen rolled into one. The low visor protects him from eyes that watch and follow. He tells me that he feels watched all of the time. He needs to do little to attract attention; it just finds him and follows, especially in the public spaces of Alice Springs where the necessities of his life are transacted.

Young Aboriginal men in Alice Springs are judged swiftly and harshly. To mainstream Alice Springs people, his appearance marks him as someone not to be trusted. Yet Zach’s life circumstances get lost in the public judgement. Zach’s father died before he turned 35, part of a Central Australian pattern of young men becoming fathers at a very young age and dying too young. Parenting, and fatherhood is carried out in a narrow window of available lived time. It is what I call window-parenting, especially if alcohol is involved.

Heavy drinking marks the experience that children and young adults have of fatherhood during this window of lived time. As a result, extended family must become involved in 'growing up' the children of parents who drink. Young people like Zach have to draw on kin networks as a strategy to overcome the fragmentation of contemporary life. Zach’s father, Alfie, lived a life of chronic intensities. There was little variation to the routine of extremes that characterised his life. It was always more of the same: drinking at the same places, drinking with the same
people, and waiting for the money days, indulging in drinking days and blearily sobering up on recovery days.

Zach tells me he likes going hunting, but he hasn’t got anyone to go with except his Uncle Tim. Even when Zach’s father was alive, Zach didn’t go hunting with him. The drinking meant that Alfie never left the town boundary. Zach comes from a large extended family and I’m surprised that he identifies only one out of so many uncles. His Uncle Tim is Zach's grandmother’s second cousin. Zach tells me he regularly knocks on his uncle's door with the question ‘Uncle, when are you going hunting?’ It is not a strategy Zach wants to risk over-using. Zach doesn’t see his uncle all of the time, but deliberately and judiciously draws on this kinship network to facilitate his interest in going hunting. This tactic is echoed by the substitution work of women.

Grandmothers and aunties now play an expanded role in the socialisation of knowledge in young men. Here, I draw on the results of my survey data. The response of young men to the survey question ‘When you were younger who did you go bush with the most?’ revealed the top five, in order: professionals; uncles; grandmother; parents; and aunties (see Figure 12, page 114). Further analysis of this question shows that young men went out bush twice as much with their grandmothers compared to their grandfathers. Grandfathers and great-grandfathers rate on a much lower scale, a reduced role which can be explained by the declining numbers in this demographic. ‘Fathers’ as a distinct category also ranks low against other relationship types, but I am mindful that the survey categories are grouped as ‘mother and father’ as well as separate categories of ‘mother’ and ‘father’ to take into account the separation of parents and the diversity of Aboriginal family types (Saggers & Sims 2005, pp. 66–87; Zubrick, Silburn, Lawrence et al. 2005). From the survey, and my own observations, during childhood there is no gendering of bush trips: boys accompany their grandmothers as much as girls do. Survey data also shows that young men identify that they learnt the most from (top five, in order): uncles; grandmother; older cousins; grandfather; aunties and parents (see Figure 13, page 114). This matches my interview and observational data: uncles and the peer group are key to the social learning processes of young men.

The survey data also shows that young men rank grandmothers above both grandfathers and fathers as ‘people who taught them the most’. Again, as with bush trips, this result reflects the
declining numbers of Aboriginal men as a demographic group across Australia. Significantly, it also shows the elevated role that older women have in the socialisation of young men. This blurring of gender roles in relationship to social practice is an extremely important social response. It shows how Aboriginal society has the ability to adjust to circumstances in order to continue generating and reproducing knowledge.

**The invention of a new social category: the ‘helping whites’**

In the survey, I use ‘professional’ to describe non-Aboriginal staff in organisations, but as a theoretical concept and tool, I prefer the term ‘helping white’ (Lea 2008, pp. 3–20). A key finding from the survey data shows that helping whites are a vital force in young people lives (see Figure 12, page 114). In terms of ‘going out bush’, the presence of helping whites in the lives of male and female youth is different, featuring higher for males and lower for females. As the next chapter contextualises, I suggest that helping whites, usually non-Aboriginal women working for Aboriginal organisations, feature more prominently in the lives of young men as the young men would have accompanied female relatives in supporting or carrying out the work of organisations. Significantly, while helping whites feature prominently in ‘who’ young people went out bush with, they are not identified as key teachers (Chapter Six). Helping whites

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Photo 28. Senior women take a break on a youth camping trip. Aunties and grandmothers continue to play an important teaching role in the lives of young women and are also instrumental in influencing organisations to support and resource bush trips.
Photos 29 and 30. LEFT: Children grind berries they collected from a *Rhagodia* species. RIGHT: They then test this traditional hair dye on the blondness of a staff member from an Aboriginal organisation.

Photo 31. In this study I describe ‘helping whites’ as a new social category. The term is used as a theoretical and conceptual tool. Here, a staff member of Central Land Council displays the ‘Everything comes from the land’ poster to a group of women at a workshop.
are a new social category in Aboriginal social lives, part of the replacement strategies being executed given the losses of older male kin and a disengaged middle-aged generation (see Photos 28–31).

**Demographic stress**

Gendered replacement strategies are only one sign of altered circumstances. I now turn to look more closely at the relationships that are under stress or that have been modified, and discuss possible reasons why this is the case. This section pays attention to some adjustments in regards to the grandparent relationship (although resilient, this relationship also has some demographic quirks, such as 35-year-old grandmothers). I also examine the demographic disappearances of the middle-aged generation, the fading out of fatherhood (part of the middle-aged category), and the revision of the life stage that equates with achieving the status of ‘elder’.

**Grandparents: social authority and cultural authority**

As noted, young men and women continue to identify with their traditional country and they do so through their grandparents (see Table 9). From my analysis of interview data, I suggest that grandparents have roles relating to social authority and knowledge authority. These themes are not new to anthropology (Berndt & Berndt 1992). Previous research shows that ceremonial ‘bosses’ acquire status not only by demonstrating ritual knowledge, but by maintaining good social relationships with their kin (Sansom 1980; Myers 1991; Dussart 2000). However, where my analysis differs from this earlier research is that I treat these themes separately to reflect realities of contemporary social life. There is now a disconnection between social authority and knowledge authority, and this variation is due to demographic change. In the past I suggest that there was no separation: both forms of authority coalesced and were one and the same. While the knowledge authority of older people has endured despite there being reduced ways to demonstrate this knowledge, it is the sphere of social authority that has been hit the hardest.
I characterise social authority, a form of social policing, as the ability to regulate social behaviour. Take 60-year-old Steven, a Western Arrernte man reminiscing about when he was a boy:

*In this community used to be a lot of old people. They used to walk around at night with nulla-nullas [fighting sticks] and we would shiver. Because that was old days. They were strong and we respected.*

Steven’s account signals two things about social authority and how it has become separated from knowledge authority. Fifty years ago the older generation had the numbers. Today, the social authority of the older generation is dwindling, from many forces, including a decline in their physical presence (see also Beckett 2010; Langton 2010). From an interview with Dianne, a linguist who first came to Central Australia in the 1970s, it is made clear that numbers and the *threat* of punishment was enough to create the fear which moderated social behaviour.

*At that time there was lots of people that would have been in their sixties, fifties, and forties. Whereas now there’s a huge number of young people, the population under 30 or even under 20, is absolutely huge compared to say people over 60 and certainly over 70. So the regulation of life, marriage alliances and conflict resolution, all that sort of thing, that ability has gone. I mean, the small numbers of elderly are often quite ill, [old] people they just don’t have the numbers against the youth. So I think that’s probably one of the factors that [young] people are sort of perceiving, like once upon a time old people would have come down on people for certain types of behaviour; they just haven’t got the ability to do that anymore and they haven’t got ability to frighten people, so their threats are relatively meaningless.*

However, in terms of knowledge authority, the young adults involved in this study view the older generation as the people who ‘really know’ about cultural matters, ‘so if you want to find something out, you ask them.’ At the same time, young adults have more knowledge

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119 Interviewed 20 June 2012.
120 Interviewed 11 June 2012.
121 Interview data 14 March 2012.
in certain areas compared to their grandparents. Young people confidently navigate internet and phone banking for older relatives, teach their grandparents how to use their new mobile phones, liaise with bureaucrats from housing departments about repairs or tenancy listings, and interpret explanations from doctors or pharmacists. While knowledge authority in relationship to IEK is strong, the imbalance in skills in other areas is a phenomenon that is upsetting lines of independence and dependence. What this means is that, in some areas, young people can interact with the world independently of the older generation. And the older generation are more dependent on the younger generation in an increasingly bureaucratic and technological society. The switch in skills, where young people have more abilities in certain areas, also upsets lines of respect where older people have traditionally been the teachers (see also Greenfield 2004, p. 24).

Redefinition of elders

Tara, who is in her mid-seventies, continues to resist the label of elder, despite others in the Alice Springs community labelling her as one. Due to demographic change, Aboriginal people in their fifties are now describing themselves as elders or others are bestowing elder status to this age group because they are literally (and sadly) the oldest generation alive in their families or community. Tara has in the past described herself as a ‘senior’ to me, but during our interview she uses an alternative term and also talks about male elders.

*There is not many old men. There is mostly grandmothers today. There are a number of men who think they are the senior people but they aren't necessarily that old. I'm not an elder. Rayleen and Susan are older and they are elders. People consider me and Jane as elders, but we are not. We are 'child-elders'.* 122

The term ‘child-elder’ could be Tara’s way of acknowledging that her own knowledge authority compared to the old people she grew up with is incomplete, which is also a reflection of the disruptions and circumstances of Tara’s life.

Confusing this kind of analysis is the slippage in the ages we are talking about when words like ‘grandmother’ or ‘grandfather’ are used. Compared with other states and territories, for example, the Northern Territory has the highest proportion of Aboriginal births to teenage mothers and this is highest still in very remote areas (Steering Committee for the Review

122 Interviewed 26 March 2012.
of Government Service Provision 2009). Due to the high numbers of teenage parents in the Northern Territory, there are correspondingly young grandparents. Arguably the young sexual activity in some ways matches the past, when Aboriginal women were married during early adolescence (Burbank 1988), but this would have been to older male partners. In contrast, teenage fatherhood is a relatively recent social phenomenon and unprecedented in Aboriginal social history; young men are becoming fathers during adolescence, whereas in traditional times fatherhood was around the age of 30 (Meggitt 1962; Burbank 1988).

Alongside the prevalence of teenage mothers and fathers is a high incidence of relationship breakdowns and large numbers of single-parent families or other family types (Zubrick et al. 2005; Robinson 2012). In all this, it is the older generation, particularly the grandmother, who remains central to holding families together and parenting grandchildren, as Tara notes: ‘A father may leave the family and marry someone else and so may the mother. It will be the grandmother who is still there.’

Some youthful grandmothers have stepped into this role too and perform the duties of being an older grandmother. Gemma reflects on a young grandmother she knows:

> ... she's so young, she's mid-thirties and yes, she's a grandmother. She's taken charge of the granddaughter, who's two, because that child was not being properly cared for and it's a child with a chronic chest condition. And she could just see that her son and his partner was just not getting it right, so she very strongly stepped in and has claimed the child – has done it through Welfare. And strongly claims her authority, and that's interesting for somebody that young.  

But some young grandparents are still doing ‘young people things’. They drink too much and ‘act silly’ in front of their grandchildren and other young family members, which, in its flaunting of the responsibilities of grandparents, contributes to the erosion of respect for older people.

**De-coupling of age and generational roles**

As noted, a modern social phenomenon is that men are becoming fathers and grandfathers at a younger age compared to previous generations (cf. Burbank 1988). This change has upset
the synchrony of generational roles; what has ensued is a de-coupling of age and generational responsibilities. In contemporary life, generational responsibilities are being assumed at a younger age when levels of knowledge and maturity are still developing. In discussing generations, it is important that I define age categories for each generation to distinguish roles and responsibilities. I characterise the middle-aged generation as aged between 40 and 55 and senior men aged between 60 and 75, noting as I do that these are research conveniences rather than the categories enacted by Aboriginal people. As previously mentioned, in the Northern Territory we know that statistically there is a very high percentage of teenage parents (Steering Committee for the Review of Government Service Provision 2009). This means that middle-aged men are increasingly becoming relatively young grandfathers (and as already highlighted there are correspondingly young grandmothers). As a result, two types of grandfathers co-exist in regards to Aboriginal social processes and practices. They are (what I call) Senior Grandfathers who are aged between 60 and 75 years and who have grandchildren in their early twenties – grandchildren who are the focus of this study. The second category I describe as the Young Grandfathers, who comprise the middle-aged generation aged 40 to 55. These Young Grandfathers have infant grandchildren and they are also the fathers and uncles of the young people who are the focus of this research. Generational responsibilities and roles – that is, the socialisation of practices related to IEK – are now coming earlier. This requires more maturity, developed more quickly, for generational change means men are becoming fathers at 15 instead of 30, and grandfathers at 40 instead of 55. For women, even though modern life has brought about an extended period of maidenhood, motherhood is still occurring at a young age (Burbank 1988, p. 5).127

My fieldwork material (including knowledge I bring from my lived experience as a member of the Aboriginal community) combined with statistical data, underscores a commonly known reality: many young men have fathers who are incarcerated or have already passed away (Steering Committee for the Review of Government Service Provision 2009, p. 730).128 My research shows that if a young man loses his father, he can still rely on the brothers of his father

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127 Maidenhood is defined as the ‘period between the beginning of fertility and motherhood’ or cross-culturally defined as between menarche and marriage (Burbank 1988, p. 5).
128 Indigenous females had a higher avoidable mortality rate compared to Indigenous men between 2002 and 2006 (Steering Committee for the Review of Government Service Provision 2009, p. 730). This means that sadly many young male and female children are losing their mothers to early and preventable deaths too.
and an extended network of uncles and peers in a larger kinship system. A saving grace of IEK practices and processes is the continuation of a functioning (if adapting) kinship system. Even within Aboriginal kinship understandings, every young man has one father, but many uncles (many fathers’ brothers). Every uncle is a father. If a young man loses his father, his cousin loses an uncle. What this means is that there is huge burden on available and dwindling numbers of middle-aged and senior men to young men ratio regarding knowledge transmission.

Despite the general demographic absence of fathers, some young men do have fathers who they distinguish as key teachers. Sam is a Tennant Creek local who recognises the significance of having a father in his life, a circumstance he considers good fortune for its rarity:

*I was pretty lucky because I grew up with my dad out bush. When we grew up, he taught us everything about the bush, how you hunt for food, how you find food. And when we used to go hunting, he used to tell us about country, stuff like that. My dad was my strong person in my life. When I look at a lot of other young fellows, I think they are very passionate in their culture, but they had no one there to teach them and show the way. So I feel lucky in that way. I see them ones [as] the unlucky ones because they don't know what they could have or how much they’re missing out because they haven't seen it, they haven't experienced it.*

The ‘unlucky ones’ Sam talks about are the young men who have to come up with their own strategies to incorporate and bring in extended male kin or tag along with their grandmothers when it is not too embarrassing to do so, due to missing fathers. These male kin may be close or distantly related uncles, but nevertheless they are central to socialisation practices around, for example, hunting.

I now turn to local perceptions of the middle-aged generation. In Central Australia, this generation is regarded as one that has been decimated, a disappearing that local people often attribute to alcohol-related harm. When I ask 23-year-old Levi about the middle-aged generation, he tells me, *‘They are more of a bad example’* than a group he looks to for leadership. Levi’s cynicism is echoed by Lincoln, a senior Warumungu man: *‘I’ve seen a lot of them, leading young*
Forty-year-old Patty, an Aboriginal schoolteacher, is the pithiest of all: ‘Sometime forty is still crazy.’ Absent in the ‘intergenerational discourse’ is the important role the middle-aged generation has to play in knowledge transmission. It is this generation that has been particularly devastated in the last 40 years, creating (among other radical impacts) a higher teaching load for uncles and grandmothers.

There are fewer middle-aged and senior men alive compared to that of senior and middle-aged women (Australian Bureau of Statistics 2011). Aboriginal men are incarcerated at high levels, which removes them from their roles in caring for the next generation (Crime and Misconduct Commission 2009). In the Northern Territory there is a particularly high rate of reimprisonment (48% compared to the national average of 39%) due to higher proportions of young and Indigenous offenders in the prisoner population (Steering Committee for the Review of Government Service Provision 2009, p. 10.54). There is increasingly a negativity associated with Aboriginal men and their future prospects. As one interviewee wryly asserted ‘perhaps their only choice is be in jail or sitting on welfare in a community.’ This type of negative assessment is echoed by David McKnight (2002) in From Hunting to Drinking. On Mornington Island, off the north Queensland coast, McKnight maintains that drinking is now the key social activity, replacing the lure of hunting and affecting all spheres of community life, including child-rearing practices. Of course I don’t deny the serious harm and destruction wrought by alcohol. Yet to focus only on the negative impacts of alcohol and Aboriginal men, without acknowledging the positive aspects of Aboriginal manhood, is an injustice to Aboriginal men who are supporting and caring for large extended families. With their numbers greatly reduced, these dwindling numbers of middle-aged and senior men are shouldering expanded responsibilities for an entire Aboriginal knowledge system and society. In a single generation a gap of fathers becomes a gap of uncles and grandfathers too.

Reduced numbers of Aboriginal men puts greater pressure on those men who are still alive, willing and able to reach out to younger people, and increases the responsibility on grandmothers to pick up the generational lag. This scenario is a product of settler colonial

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133 Interviewed 4 July 2012.
134 Interviewed 14 June 2012.
135 Research on Aboriginal youth, police and juvenile justice includes Cunneen (1994), Cunneen & White (2007), and Drury & Dennison (2000).
136 Interviewed 28 June 2012.

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history ramifying into the present. People in their mid forties and fifties today were in their late teens in the early to mid 1980s. The period 1970 through to the mid 1980s was marked by hard fought for and hard won rights, such as land rights and the rise of Aboriginal controlled organisations, but it is also a period of great harm. This era in particular saw the convergence of the right to drink, access to cash-in-hand and newly introduced welfare payments (Rowse 1998, p. 9; Austin-Broos 2009, p. 184). The harmful consequences of this era were not only felt by individuals and families at the time, but spilled over to the next generation: the current middle-aged generation.

As a social issue, the acquisition and transmission of IEK is entwined with tangible and intangible influences of individual and family socio-cultural histories. It is worth repeating that above and beyond this already complex network of influences, the acquisition of IEK is linked with difficult questions of colonisation, dispossession, displacement, racism, family and individual dislocations, and social marginalisation. As Nina, herself a middle-aged woman, comments:

> It’s going to be a lot of changes, our culture will be there, but it won’t be strong enough. Because our old people will be gone and young people are not spending a lot of time with old people, you know, we need to get those middle-aged people to go back and spend time with old people.\(^\text{137}\)

This phenomenon has individual repercussions as well as wider implications. As Tara, a senior Arrernte women explains:

> These days some young men who have been through [initiation ceremony] still haven’t been to the sacred sites yet. For instance, my grandsons, who are men, didn’t go out with their grandfather. Because when they go out they would need a number of the right people to be with them, such as the owners of the place from the different generations and their advocates. So that’s why it’s hard to organise because some of those people may be living somewhere else a long way away, and others may be closer.

> Not many people sing along with anthepe now because all those old people who knew [the songs] have gone. We have to borrow people from Alyawarr side, Anmatyerre side and Ntaria side.\(^\text{138}\)

\(^{137}\) Interviewed 16 May 2012.

\(^{138}\) Interviewed 26 March 2012.
Alcohol and demographic change

As noted, alcohol has long been singled out as a reason for the middle-aged and older male population decline and for the harm it causes to women and children (Spencer 1988; Kelly & Kowalyszyn 2003; Wild & Anderson 2007; Laslett, Catalano, Chikritzhs et al. 2010). It is undeniable that alcohol causes social disruption, violence, homicide, high levels of imprisonment, abuse and neglect, chronic health disease, and early deaths from alcohol-related injuries and road accidents (Treacy, Kerrie & Mansfield 2002; Shore & Spicer 2004; Chikritzhs, Pascal, Gray et al. 2007; Australian Bureau of Statistics 2008; Frances, Hutchins, Saggers et al. 2008; Steering Committee for the Review of Government Service Provision 2009).

When citizenship and the right to drink were granted, it was largely young Aboriginal men who took up drinking (Burbank 1988, McKnight 2002, Brady 1992). Jump forward almost 50 years and these young men theoretically would make up the grandfather or senior generation. Today, the epidemiological literature continues to characterise Indigenous drinking populations as being young and male (Australian Institute of Health and Welfare 2008; Pascal, Chikritzhs and Gray 2009).

The absence of sober, intact men particularly cuts back on the ability of families to practice a key cornerstone of IEK in contemporary life: the ability to hunt. As Emily summarises:

I think if there’s a man in the family who really knows the country and how to go out shooting they can always take people with them, but if there’s nobody in the family like that, then generally it doesn’t happen . . . A lot of the men would be just drinking on the weekends and not really organising their families to go out anywhere basically. Probably for that generation they know a lot and they just assume it’s somehow going to happen for the next generation. They don’t realise that they are the ones that have got to do it.139

With cash-in-hand, combined with the right to drink and causal factors of trauma and loss, alcohol consumption greatly increased during the late 1960s and early 1970s. However, older research shows a higher percentage of Aboriginal people who abstain from drinking compared to the mainstream population (Brady & Palmer 1984). The Aboriginal style of drinking, termed ‘contingent drunkenness’ for its connection to a communal drinking lifestyle, rather than ‘pathological susceptibility to alcohol’ makes Aboriginal drinking more obvious and, in terms of its social ramifications, more contagious (Saggers & Gray 1998, p. 150).

139 Interviewed 15 August 2012.
While Aboriginal women have historically been a significant group of non-drinkers (Saggers & Gray 1998), more recent research by the National Drug and Alcohol Research Centre shows that traditional differences in male and female drinking patterns for both Aboriginal and non-Aboriginal populations have greatly reduced over the course of the last century (Slade, Chapman, Tonks et al. 2013). This evidence suggests that females are ‘catching up’ to men in rates of alcohol and cannabis use and are now more likely than previously to engage in heavy episodic or binge drinking in Australia (Slade, Chapman, Tonks et al. 2013). Skip ahead a generation or two and Aboriginal women who were once non-drinkers are now drinking alongside their husbands and boyfriends. The combination of men taking up drinking in the late 1960s and now the changed pattern of drinking habits for women has had dire consequences for the integrity of family life and the social reproduction of knowledge.

**Enter the ‘peer group’ and the ‘teenager’**

Richard Condon in *Inuit Youth* (1987) makes the point that prior to living in modern settlements, the small size and mobility of Inuit family groups precluded the existence of a discrete youth peer group. In Central Australia, the situation was very similar. The social basis of pre-contact Aboriginal society in Central Australia was small and highly mobile family groups: travel was necessary for survival. Prior to sedentarisation, the gathering together of large groups of people related to ceremonial and ritual life (Young & Doohan 1989). For Western Desert groups, Peterson (2000) estimates that people lived in groups of 14 and at densities of approximately one to 50 people per 200 square kilometres; while Meggitt (1962) estimates that for the Warlpiri, population density was one person per 35 square kilometres. For Arrernte people, blessed with more rivers, springs and soakages, the density on their country is estimated at one person per 13 square kilometres (Strehlow 1965; Young & Doohan 1989).

Senior Arrernte woman Tara remembers how people lived before the arrival of white people, in small family groups: *‘In the early times [young people] lived in the main camp with their mother, father, children and grandmother and grandfather.’*  

Another senior Arrernte woman, Penny, similarly recollects:

> [Young people lived with their] mother and father and children and grandparents or

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140 Interviewed 20 September 2012.
maybe one old man and the son and his wife and kids and their sons and daughters. They would all move around together with their dogs.¹⁴¹

It is very easy to see the effects of sedentarisation, the permanent gathering of large numbers of unrelated people into more permanent proximity, as a source of current intra-community conflict and leave the analysis at this point. But there are other ramifications, subtle yet no less significant for their lesser visibility. Centralised living also allowed people to be living in the size clusters that administrators would then divide and categorise according to their population terminologies – as infant, or as adolescent, for example – to not only treat these groups distinctively but expecting these new distinctions to be upheld by the groups themselves.

No longer were young children in charge of their own hunting and gathering; now they had to be formally schooled in institutional settings. For settler society, age-consciousness and age grading in schools emerged during the late 1880s and early 1890s in response to industrial capitalism, technological advances and the beginnings of formal education (Kett 1977; Chudacoff 1989). This institutional framework of learning was to be overlaid on Aboriginal children with profound social consequences.

Through serial reinforcements at every level of governance, Aboriginal groups started to self-identify in relation to the new demarcations, becoming ‘teenager’ – and, for that matter, ‘ Aboriginal’ – in the process. Adolescence as a phase of life is a new Aboriginal social category, as is the notion of a peer group (McConnachie 1982). The concept of the peer group is now an extremely influential force in descriptions of the decision-making processes of young adults, as Wendy explains:

. . . that peer pressure, like any teenager, you’ve got your crew. I think for people to leave for a period of time, say one week [to go out bush], is like forever . . . [young people think], ‘Oh my god, think of all the things that could happen in that time.’¹⁴²

Schlegel and Barry (1991) note that it is the peer group that is critical to a holistic definition of adolescence. Peer groups and peer orientation are a direct result of changes to the way people lived their lives and of new institutional and social arrangements. In the early days, young people spent most of their time with older people and thought nothing peculiar of this relaxed ‘multigenerational’ modality. In her late seventies, Dora recalls, ‘I never used to walk around

¹⁴¹ Interviewed 16 March 2012.
¹⁴² Interviewed 25 June 2012.
with young girls when I was growing up. No, only old people. I was always in the company of old people’.

Writing about the concept of adolescence and Aboriginal desert communities, McConnachie (1982) argues that adolescence did not exist in traditional Aboriginal society. Of course, physical changes to male and female bodies existed and the transition to gaining adult status was socially managed and socially determined on an individual basis (Schlegel & Barry 1991; LeVine 2011), and the division between childhood and adulthood was marked by gender-specific social and ritual activities (Fietz 2008; Kral 2010). Some people progressed through ceremonial and stages of ritual knowledge more steadily than others, determined both by their personal aptitude and qualities, and by the skill of their ceremonial leaders (see Sansom 2010). But the idea of ‘teenagehood’ as a distinct and self-labelling social category did not really exist. The closest term equivalent was the idea of ‘junior adult status’ (Berndt & Berndt 1992, p. 216).

A universal given is the biological transition from childhood to adulthood (Hewlett & Lamb 2005). Both Aboriginal male and female categories relate to biological development, including for males marital status and initiation (and progression through further ritual sequences), and for females marriage and motherhood. These cultural scripts relate to social roles and the attainment of social status or adult status. While the concept of adolescence did not exist, traditional social categories did (Dobson & Henderson 2013). Profound socio-cultural change has greatly altered the transition processes from childhood to adulthood and how these are demarcated. Cattle stations, ration depots and the enforced introduction of settlements and missions caused large numbers of young people to aggregate. Furthermore, in missions, the separation of children and young people into age-graded dorms reduced contact with parents and between siblings. Age-grading became a factor in the ‘normalizing’ of the Aboriginal population (Lesko 1996, p. 148). In other words, ‘adolescence’ and ‘youth’ are culturally relative constructs (Brady 1991; Rogoff 2003). The uptake and acceptance of a term like ‘teenager’ has its origins in how non-Aboriginal people physically grouped and graded children and adolescents in mission and school life (dormitory living and age-graded classes) to the point where, today, adolescence is now widely recognised in urban and remote Aboriginal communities as a social category (Burbank 1988, Brady 1993, McConnachie 1982).

143 Interviewed 28 October 2011.
Older Aboriginal people in Central Australia have now accepted and use the term ‘teenager’, an acceptance which freights in associated expectations of young Aboriginal people during this life stage. By definition, the term ‘teenager’ reduces the sense of young people’s potential: the older generation regard the teenage years as a time when aptitude and interest in learning is suspended. However, I would argue that this is not the case. It is during this life stage that key learning events transpire: young men participate in local rites of passage and motherhood incentivises the practice of IEK, from health and healing to sourcing certain bush foods for babies to enjoy. Teenagers are also peer-teachers, explaining how to correctly carry out a task or readily explain something to a child or youth a few years younger. While there is the perception that the teenage years are a time of nothingness, this life stage is the time that young people engage and participate in cultural events. As I have shown (and will continue to bring to light), Aboriginal people have adapted their traditions to changed circumstances, including the structuring of Aboriginal social and cultural processes which are now concentrated around this new category of ‘teenager’. Ironically, while the term ‘teenager’ invites a negative meaning, in practice older people have intensified their expectations onto and hopes for this age group. Materially, teenagers activate much IEK activity in ways that simultaneously motivate and energise the older generation. Like many representations of Aboriginal youth, the term ‘teenager’ circulates with stereotypical flourishes intact, even while there is clear evidence that, as it is lived, it remains a potent transactional age span for contemporary IEK.

This chapter described the continuity of key teaching roles within Aboriginal kinship categories, suggesting that grandmothers, aunts and uncles remain central to the socialisation of practices around IEK in greatly altered circumstances. Because there are fewer men in the older age groups, and therefore fewer male teachers, a greater burden falls on those middle-aged men who are alive and prepared to be involved, as well as remaining senior women. These are the groups who are taking up the slack of a decimated middle-aged population and a disappearance of fathers (which also means the loss of an uncle as a teacher). Senior women aged in their seventies may well have more knowledge in certain areas (that may once have been the province of male teachers) than males in their forties. This situation has been observed by John Bradley working with Yanyuwa people in the Borroloola area (2010, p. 19). Yet, despite the radically altered circumstances of everyday Aboriginal life, it is primarily through family,
extended kin and peers that young people come to learn, internalise and integrate IEK as a holistic knowledge system.

In Central Australia there are two thoroughly social contexts in which young people practice and thus acquire IEK. They are learning first and foremost in the context of family relationships and kin networks (see Figure 13, page 114); and, secondly, through their engagement with organisations (see Figure 12, page 114), an engagement that nonetheless includes kin influencing program activities through their strategic relationships with non-Aboriginal staff or helping whites. Kinship continuity is one of the surviving essences of Indigenous lifeworlds.
In the unforgiving desert landscape that is Central Australia, diversification has always been a necessary part of Aboriginal survival. In this chapter, I will show how organisations (state-based, non-government, for profit, community-controlled) have been incorporated into contemporary strategies of knowledge transmission and maintenance. As previously discussed, in times past young people only learnt through kin-based transmission of IEK: learning was organic, families were entire, land wasn’t locked into private property and time wasn’t fragmented around European requirements. People have had to rapidly adapt and modify to post-settler circumstances with creativity and resourcefulness. Extracting the most from a densely populated organisational landscape exemplifies this navigational work. Aboriginal people have broadened their social networks to incorporate organisations and what I call, following Lea (2008), helping whites. While extracting assistance from organisations is arduous and demanding, such practices can also give rise to highly innovative knowledge products and processes that are appealing to young people. Aboriginal engagement with organisations also creates an economic context for the use and application of knowledge; this is a re-imagining and revitalisation of an economy around Local Knowledge.

Aboriginal people are now a ‘displaced minority’ in their own lands with new settler Australians forming the majority (Perry 1996, p. 167). In these circumstances, interactions between Aboriginal and non-Aboriginal people occur in a space characterised by Francesca Merlan (1998) as intercultural.144 Merlan shows that Aboriginal social life does not exist in isolation

144 Francesca Merlan’s (1998) Caging the Rainbow provides an ethnographic account of the ‘intercultural’ life worlds of Aboriginal people who live in Katherine, a small town 1000 kilometres north of Alice Springs.
from white settler society but is now constituted in an intercultural social field emerging from
the interplay of Aboriginal and non-Aboriginal cultural forms and difference (1998, p. 52, pp.
86–94). Merlan characterises this intercultural space as being one of flexibility and continual
negotiation and reinterpretation (Merlan 1998, p. 52, pp. 86–94).145 In this intercultural space,
adaptation processes from the old ways of learning have had to be renovated or replaced (see

One of the more significant changes in the Indigenous arena has been the accelerated exposure
of Aboriginal people to organisations working in tandem and sometimes in contradiction to
each other. Tim Rowse has labelled this organisational outgrowth the ‘Indigenous sector’ (2002).
Aboriginal-controlled but publicly funded organisations grew out the self-determination era
of the 1970s: land councils, statutory authorities, incorporated councils, health services, legal
services, housing associations and community-controlled education providers (Sullivan 2011).
Indeed, Aboriginal organisations themselves are considered ‘intercultural products’ (Martin
2003; Batty 2005; Holcombe 2005). In Central Australia, collaboration between Aboriginal
and non-Aboriginal people has been a critical feature of the establishment of local Aboriginal
organisations (Batty 2005). In arid Australia, it is estimated that there are more than a thousand
such organisations (Sullivan 2011, pp. 51–55). However, despite its label, the Indigenous sector
is full of white Australians.

Today, there are no parts of Aboriginal life in Central Australia which do not involve some
kind of organisational and institutional encounter. The scale of organisational interactions is
difficult to exaggerate and has its beginnings in the colonial crush. Colonial entanglement,
writes Achille Mbembe, is ‘the coercion to which people are subjected . . . [A] whole cluster
of reorderings of society, culture, and identity’ which is found in the ‘way power is exercised
and rationalized’ (2001, p. 66). In Central Australia, an early phase of state entanglement was
the state provision of rations and the establishment of sites to dispense flour, tea and sugar
while hunting grounds and waterholes were commandeered (Rowse 1998). Colonial economic
expansion, violent dislocations from land and the earliest settlement of Central Australia saw
the arrival of government and non-government social welfare organisations and the beginnings

145 Work addressing the intercultural space in Australia includes Hinkson & Smith (2005); Sullivan (2005); Merlan
(2005), Lea (2006); Batty (2005) and Ottosson (2012).
of what anthropologist Jeff Collman called ‘the field of Aboriginal care’ (1988, p. 14). In this sense, Aboriginal people have a long history of managing social and economic interactions with white missionaries, pastoralists, administrators and their representative organisations.

Collmann’s analysis, *Fringe-dwellers and Welfare – The Aboriginal Response to Bureaucracy*, drawing on fieldwork conducted in the 1970s, is set in Alice Springs. Examining the interrelationships between residents of town camps and social welfare agencies, he writes, ‘Because whites monopolize the basic resources in Central Australia, all Aborigines must gain access to white agents who will provide them with what they need to survive’ (1988, p. 7). As a result, Aboriginal people spend a lot of time managing welfare agencies and white bureaucrats, who Collmann refers to as ‘white brokers’ (1988, p. 5).

Interestingly, while the dynamic interaction between Aboriginal people and state and welfare institutions has been intermittently covered in the Australian literature, from Collman on, (Sullivan 1996, 2008, Rowse 1998, Holcombe 2005), the interculturality of IEK within the Indigenous sector has received limited attention. It is as if an organisational co-presence is either so deeply assumed it is unremarkable; or, as likely, the popular archetype of coexisting but incommensurate worlds is in play. Here, a model of monolithic Indigenous and non-Indigenous categories are assumed to exist, despite obvious signs of a more ambiguous shared cultural space of (unequal) intersubjective dependency. At any rate, a discourse of ‘two-way’ knowledge in Aboriginal land management is now an established paradigm (Preuss & Dixon 2012, p. 2–15). Implicit in this ‘two-way’ approach is that power is equally shared between Indigenous and non-Indigenous people. Unfortunately, as I will go on to show, this is not often the case.

In Australia, now more than ever before, there are increased state policy formulations and funding for Indigenous land and sea management programs, also referred to as ‘caring for country’ (Hill et al. 2013). Under the rubrics of these programs, the state has aligned its national interest in natural resource management, conservation and biodiversity with the interests of Aboriginal people in looking after their customary land and sea estates (Adams & English 2005, pp. 86–97; Australia. State of the Environment Committee 2011). My point is not that such an alignment of state interests and Aboriginal ambitions is new, for the 1970s policy of
self-determination created the Indigenous sector and a revamped role for ‘white helpers’ (Batty 2005). Rather, I emphasise that in the 21\textsuperscript{st} century, with a greatly reduced context to use IEK, Aboriginal people are innovatively shaping and creating \textit{new contexts} to practice IEK. But first let me take you to the historical backdrop for the increased formal involvement of Indigenous people in environmental management through government-supported natural resource management.

**Self-determination**

As the anti-authoritarian movements in the northern hemisphere coming out of the radicalisation of post-Second World War populations began to permeate through Australia, the late 1960s saw an unprecedented change in the national political will to improve the circumstances of Aboriginal people (Fletcher 1992).\textsuperscript{146} The 1967 national referendum marked a turning point for Aboriginal Australia as it paved the way for the Australian Government to play a greater role in Aboriginal affairs policy and administration.\textsuperscript{147} In the early 1970s, the Whitlam and Fraser governments replaced policies of assimilation with those of self-determination (Rowse 1998). This policy shift has been characterised as one of the most ‘revolutionary’ in Australia’s history (Altman & Sanders 1995). Francesca Merlan suggests that the Australian Government’s policy shift from ‘assimilation’ to ‘self-determination’ was essentially seeking:

\begin{quote}
... to elicit from Indigenous people what are taken to exist as their own modes of organisation and to recast the management of Aboriginal affairs in what are seen to be Indigenous terms. (Merlan 1998, pp. 149–150)
\end{quote}

At any rate, the policy of self-determination also changed the role of white Australians in Aboriginal affairs. Whites went from being in ‘charge’ of Indigenous ‘improvement’ to supporting Aboriginal people in achieving their goals (Kowal 2011, p. 314 after Rowse 2000, pp. 110–130). Under the rubric of self-determination, whites would theoretically take a backseat...
role in Aboriginal organisations, rather than leading ones, and Aboriginal people would be in control and manage their own affairs. The ongoing ‘self-effacement’ of whites working in the Indigenous sector is linked to this ostensible mandate of Aboriginal control (Kowal 2011, p. 315; Lea 2008; Batty 2005; Mahood 2012). But as Martin argues, nowhere in Australia do Aboriginal people live in ‘self-defining and self-reproducing worlds of meaning and practices; rather they inhabit complex and contested intercultural worlds’ (Martin 2003, p. iv). Aboriginal organisations commenced as, and continue to be, intercultural sites (Merlan 1998; Martin 2005).

An example of this is from a small Aboriginal organisation in Alice Springs. The fraught work of securing funding, carrying out all financial reporting, managing day-to-day operations and overseeing general administration and program activities rested with two key white staff. They were also all-round trouble shooters, dealing with information technology matters, providing cleaning services, rubbish removal and garden maintenance, assisting with after-hours transport, including advocacy in dealing with eviction notices or attending a doctor’s appointment to ensure that a review of medication was carried out and properly explained.148 Aboriginal staff employed at the organisation and the Aboriginal governing committee are highly motivated, skilled and capable staff and committee members. The Aboriginal committee ‘authorise’ the non-Aboriginal staff to manage operational matters and negotiate funding or strategic interest matters with government and non-government agencies on their behalf; and a relationship of trust and respect sits behind this authorisation (Batty 2005, pp.217–218). Yet on the website of this organisation the non-Aboriginal staff (who manage the website) are barely featured, appearing as a list of names at the bottom of a page. My point is that the ‘self-effacement’ of whites is alive and well in the IEK intercultural space, helping to explain why the co-dependencies between Indigenous and non-Indigenous people in IEK production are seldom if ever mentioned in policy documents or scholarly reviews (cf. Kowal 2011, p. 315).

While self-determination was intended to be ‘assertively non-colonial’, arguably settler colonial entanglements continued and even ramped up under this policy to the point where Aboriginal organisations, initially figured as ‘decolonising institutions’, are now viewed as sustaining the colonising process (Bradley & Seton 2005, p. 32). Self-determination provided the state with a

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148 Field notes, 15 July 2012

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framework and the instruments for continued management and regulation of Aboriginal lives, only this time using more Indigenous people in the process (Batty 2005).

Although serving Aboriginal purposes, there’s no escaping the fact that Aboriginal organisations are initiatives of governments and also serve government purposes (Rowse 2002, 2005). Patrick Sullivan, an Australian anthropologist, observes that Aboriginal life is ‘almost entirely supported by grant and welfare regimes, and therefore by public sector administration and by Aboriginal community sector service delivery’ (Sullivan 2008, p. 128). In terms of the publicly funded Indigenous sector and Indigenous Knowledge traditions, this meant that

... henceforth, Aboriginal traditions and religious beliefs were to be celebrated, reaffirmed and ‘maintained’ through state supported programmes, organisations and legislation. (Batty 2014, p. 298)

In this way, ‘IEK’ itself was born as an apparatus of the state, a ‘thing’ to be controlled and used in ways that benefit the state, despite its benevolent intent. As Phillip Batty argues, drawing on Foucault, the state masks its intent behind its benevolence: ‘power is tolerable only on condition that it mask a substantial part of itself. Its success is proportional to its ability to hide its own mechanisms’ (Foucault 1990, p. 86, cited in Batty 2005, p. 216). This can be seen in the ways Aboriginal interests are often subdued in formal Aboriginal land management programs, exemplified, for instance, in the oft heard lament that government funding is only provided for ‘fire, weeds and ferals’ and by default not the kind of IEK activities local people want to be doing. As Batty puts it:

We begin to see the emergence of a whole range of state-supported projects that incorporate certain reconstituted versions of Aboriginal culture into the administrative practices of government. (Batty 2005, p. 178)

In turning its attention to Aboriginal land management, the state has created ‘caring for country’ initiatives and a diverse array of government-supported natural resource management projects inclusive of IEK (Roughley & Williams 2007; Hill, Pert, Davies et al. 2013). Indigenous groups across Australia have welcomed this much needed financial and operational support to look after their land and sea estates (Baker, Davies & Young 2001; Australian Government Lands and Coasts Caring for our Country Review Team 2012). But as with other parts of the Indigenous domain, the extent of Aboriginal control is ambiguous. Miles Holmes, an anthropologist who
has worked in Central Australia, observes the growth of an IEK ‘industry’, one that employs greater numbers of white professionals and far fewer Aboriginal people (Holmes 2010, p. 126). It has also been argued that IEK has not yet adequately been incorporated into natural resource management at large (Prober et al. 2011; Jackson, Finn & Featherston 2012). This is reflected in my own ethnographic observations in which I noticed more time, resourcing, strategic decision making and planning being given to ensuring Aboriginal rangers have appropriate ‘whitefella’ qualifications; for example, in handling poisons and using machinery and equipment. Ranger groups will spend a week in Alice Springs at an authorised education provider venue learning about weed types and weed eradication; undoubtedly an important skilling up and necessary for managing new threats on Aboriginal lands. However, an equivalent amount of time, resourcing and planning is not made available to rangers so they can spend, say, five days dedicated to only learning about plant species from senior knowledge holders. Another example is that of Aboriginal rangers burning country using Aboriginal and Western approaches to fire management. Wendy, a non-Indigenous land management facilitator, observes (and I quote at length):

. . . where we're going with burning is a perfect example. Aboriginal people are good at burning and they've shaped the Australian landscape, they've made their mark and now what do we do? We pop them up in fucking helicopters and we drop ping-pong balls, 'Oh but it's okay because they've told us where to do it'. It's absurd. We do burning, but it is in such a controlled way and then it's up to the facilitator and the facilitator's confidence, the facilitator's awareness and the facilitator's ability to be vulnerable. The worst case scenario, which I think happens often, is everyone gets out of the car and they have to put their yellow suit on and then they get given their drip-torch and then, 'Okay walk along this line'. It's just so disenfranchising, giving people the opportunity is one thing, but giving them the opportunity to have a say in how it's done is another thing.

The upshot is that when more time is allocated to whitefella skills development compared to Aboriginal practice there is in part a de-skilling of Local Knowledge and practices, given the way clocks and calendars now dominate Indigenous lives too.

The pluses of self-determination and the establishment of Aboriginal organisations are significant. Like many Aboriginal people, I have benefitted from employment opportunities and the services provided by Aboriginal organisations. I am not disavowing the benefits; my

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149 A drip-torch is a canister of flammable fuel fitted with a wand, a burner head and a fuel flow-control device. It is used for lighting fires for prescribed burning and back-burning.
interest is in the ‘cunningness’ of the state and the masking of its true intents (cf. Povinelli 2002).

For all these problems with state-funded Indigenous organisations, here I argue that senior Aboriginal people, especially Aboriginal women, are influencing and re-defining both intercultural relationships and IEK learning opportunities alike by strategically deploying organisations to create contexts for using their knowledge. This accords with anthropologist Kimberley Christen’s arguments in relation to senior Warumungu women. Christen describes the way organisations create both a context for rehearsing and occasionally receiving money for Indigenous Knowledge practices as part of an economy of ‘culture work’, being the daily activities (paid and unpaid) that enable reproduction of Warumungu cultural practices (Christen 2006, p.416; 2005). To illustrate a similar dynamic adaptation to contemporary settings in changed economic and socio-cultural contexts, in what follows I provide four case studies showing the role of organisations in knowledge and intergenerational learning. I show the resilience of IEK and, at the same time, give a hint of the organisational and institutional dependencies within which IEK is now enmeshed.

The role of the ‘helping white’ in IEK transmission: case example

Central Australia was burning. It was September 2011 and the fires engulfing Central Australia had been reported as the worst on record. Uncharacteristically heavy rains the year before had seen a greening up of the normally dry landscape (see Figure 14). Plants used for foods and medicines had benefitted, along with the introduced pasture grass, buffel grass (*Cenchrus ciliaris*). The heavy rain was followed by a hot summer. As it faded from green to yellow, the buffel grass presented an abnormally high fuel load, which, combined with lightning strikes and accidentally as well as deliberately lit fires, contributed to the infernos devastating Central Australia (see Figure 15 and Photo 32). As Central Australia went on to burn (Bastin & Allan 2012), pastoralists were reeling from the absolute devastation to their land and the destruction of their livelihoods: and Aboriginal people were being blamed (Finnane 2011). Fire, however, does not discriminate. Aboriginal lands were burning too.

Authorities kept a watchful eye on a particularly forceful bushfire to the south of Alice Springs.

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Figure 14. Rainfall amounts across the rangelands in 2010–11. The darker tones show Central Australia experienced heavy rain in these years. This was during the beginning of my fieldwork period. (Source: Bureau of Meteorology and Gary Bastin, CSIRO.)

Figure 15. Rainfall increases fuel loads for wildfires. These bushfire scars show an extreme fire regime was experienced throughout Central Australia in 2011. (Source: WA Landgate and Gary Bastin, CSIRO.)
It was into this burning country and to Aboriginal land that a youth camp was headed. I was also joining this camp, silently hoping it would be cancelled: 40 plus degree heat and bushfires made camping out very unappealing.

The camp was the initiative of two middle-aged Arrernte women, Liz and Michelle, both employed as youth workers by the MacDonnell Shire. Their idea for the camp was motivated by the ‘girls at Santa Teresa walking around all day and night and not doing anything’. The young women at Santa Teresa and those in the neighbouring community of Titjikala were

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**Photo 32. Rainfall and bushfire regimes shape desert landscapes and IEK practices. Aboriginal people have to be observant of and responsive to fire and rainfall conditions during the course of their bush trips.**

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151 Field notes, 23 September 2011. See also Senior & Chenhall 2012 for an account of ‘Walkin’ about at night’ in a northern Aboriginal community.
152 Santa Teresa, Titjikala (and the Western Arrernte community of Ntaria) are some of the communities that come under the MacDonnell Shire.
being taken to a place now called Bright Gap, which is on an Aboriginal Land Trust. Despite my hopes for a cancellation, the trip was going ahead. Liz and Michelle, along with the ‘old women’ at Santa Teresa, were resolute. Such was their determination that the camp continue, the Arrernte women had used their own networks to gather information. The current fire being reported in the media was much further south to where we were going, the women insisted. They also knew that, two weeks earlier, a fire had already burnt around our camping destination, reducing the fuel load and associated risk. The feeling amongst the Arrernte women was that there was ‘nothing left to burn’ around Bright Gap and we would be safe. Indeed, when we got there, the surrounding land around Bright Gap was untouched by fire. However, a newly charcoaled landscape was also visible on the distant horizon.

Karen is the white youth coordinator for the MacDonnell Shire. She divides her time between Alice Springs and Santa Teresa, spending two weeks at Santa Teresa in shire-provided accommodation and two weeks in town. In her late twenties, Karen is a likeable and energetic university educated woman from Sydney. She has also worked overseas in community development. She was key to negotiating resources for the camp from the MacDonnell Shire and an Aboriginal organisation known as Waltja Tjutangku Palyapayi (shortened in everyday use to Waltja). Waltja provided two enclosed trailers, over 20 swags and general camping equipment. The MacDonnell Shire Youth Program provided the food, vehicles and staff. To get to this point of resourcing, Karen had been involved in many meetings in the weeks prior. Liz and Michelle took care of the community networking, visiting and talking to senior Arrernte women to see who was available to attend, for, even with funding, the whole trip depended on the availability of the senior women and the attendance of the young women. Old and young were key players. A lack of commitment from one or both generations would have seen the camp cancelled, when even a burning countryside couldn’t put a stop to it.

The middle-aged shire employees, Karen, Liz and Michelle, had done the serious (but invisible) work of bringing together material resources for the youth camp. It was Karen, the white youth worker, who was the common link between all groups bridging the Arrernte community, the

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153 In the Northern Territory, title to Aboriginal land handed back to the traditional Aboriginal owners through the Land Rights Act (1976) is held by a land trust for the benefit of traditional owners. This land is inalienable and cannot be bought or sold.

154 Field notes, 23 September 2011

155 The Luritja words Waltja Tjutangku Palyapayi mean ‘doing good work with families.’ Waltja works with women and Aboriginal families in Central Australia. See also https://www.waltja.org.au/.
shire and white staff at Waltja. As a familiar helping white, Karen thus performed a very important role, that of an organisational intermediary. This facilitating function is also the role of youth workers. Take Gemma, a long-term resident of Central Australia, also a shire employee in youth development services:

. . . when I’m out with families and there’s three generations or even four, there’s often somebody, like a youth worker, and there’s me, it’s like they are the intermediaries. And in a way they smooth the way for good relating and they entice the kids, if they need to. I mean, there’s always the odd teenage girl who wants to sit in the back of the car with headphones and there might be three of four of them or they might have a baby in the car and they’re playing with the baby. And yes, some girls will be very unwilling participants in the bush trip but they engage with these youth workers, who are usually young and if
Photo 34. A gum globule from the trunk of a colony wattle (*Acacia murrayana*). Young women gathered large quantities of this gum on a youth camping trip. As they collected the age-old treat, I was struck again by the contrast between their excitement and energy and the stereotypes of young Aboriginal people being disinterested in traditional practices and knowledge.

Photo 35. Trips allow valuable resources to be collected concurrent to the main purpose of the trip. Here *ngkwerlpe* (*Nicotiana gossei*, bush tobacco) is dried on the dashboard of a four-wheel-drive vehicle of an organisation that supported one trip.
Four 4WD vehicles (including three Toyota Landcruiser Troopcarriers, or ‘troopies’) drove out to Bright Gap. Altogether, there were 29 people on the camp. We arrived at Bright Gap just before dark, enough time to set up camp. The next morning the consensus for the first activity was that the group would look for a golden-coloured resin referred to as job or jo that grows on colony wattle (Acacia murrayana). Job was highly favoured as a sweet in the ‘olden days’; seeing the vitality and enthusiasm of the young women as they were looking for job showed that it is still considered a special treat, in spite of the ready availability of shop-bought lollies (see Photo 34). As the group looked for the toffee-coloured resin they stopped and talked about, picked up, held and identified other plants. There was aherre-aherre, a native lemon grass (Cymbopogon ambiguus), which was also referred to by everyone as nama (meaning ‘tall grass’ in Arrernte) (see Photo 33), as well as alkwe / wild plum (Santalum lanceolatum) and arrethe / rock fuscia (Eremophila freelingii). The senior women kept an especially sharp eye out for ngkwerlpe / rock pituri (Nicotiana gossei), a highly prized chewing tobacco (see Photo 35). The young women also energetically helped look for the ngkwerlpe, clambering up small hills and rocky outcrops, the search requiring a physicality no longer held by the senior women. The reward for the young women who found ngkwerlpe was two-fold: appreciation from older female kin, and a sense of achievement as they compared their haul with each other.

Later that afternoon, the group went on a guided walking tour led by Nancy, a local traditional owner who lives on an outstation close by. In her sixties, Nancy was struggling to remember the name of the plant in front of her. She asked her middle-aged niece, who was accompanying her, if she could remember. Embarrassed, the niece chided Nancy’s amnesia, but didn’t provide the language name or common name of the plant herself. Intrigued, and sensing uneasiness between the two, the group of young women moved in closer: the better to hear and see, while seeking a view of the mystery plant. Following their footsteps, I also moved in closer. I found myself near a young woman I call Kate, close enough to overhear the frustration she expressed to the young woman beside her. Identifying the plant for herself, Kate said ‘Oh, that’s only al-angkwe (bush banana)’: The fact that the older tour guides, Nancy and her middle-aged niece, had trouble identifying a common bush food and had made a point of showing the group

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156 Interviewed 9 November 2011.
such a seemingly familiar plant was a let-down. Indeed, youth disappointment with the older generation, amid the injunction on them to constantly pay attention, is a common theme that I discuss further in the next chapter. The level of IEK that individuals have depends on their family histories. In this case, neither the older and more urbanised Nancy nor her niece had the exponentially higher levels of IEK than 16-year-old Kate. Yet it is assumed nowadays that all senior people are more knowledgeable, and young people less so, an expectation which shapes how organisational interactions are also framed.

**Silent expectations**

It turned out that the purpose of the culture camp was not only related to plant knowledge but for the young women to also learn the performance connected to a species of butterfly, which can be described 'as a special friend of women and girls' (Henderson & Dobson 1994, p. 384). One of the senior women attending the camp, Dora, is the custodian of matters to do with the butterfly. On the second night of the camp, time was set aside for performance. The senior women initially complained they were too tired, rebutting the mix of silent expectation and quiet encouragement coming from both the Aboriginal and white youth workers. The camp after all had been put together for this very activity. A few attempts were made to start singing, but would end with the elderly Dora saying, 'I'm buggered, I'm had it' or 'I've got a flat battery'.

This humour was needed to break the growing sense of anticlimax felt by everyone. Eventually, however, Dora found her voice and the older women who were her co-singers were ready; the task of getting the young women to dance began.

A bit younger than the Santa Teresa girls, the young women from Titjikala did not need much encouraging or growling: they were the first group to get up and dance. Then there was a call out for the Santa Teresa girls to do the same. No movement. The girls lay back on their swags, silently resisting. Frustrated, one senior woman exclaimed 'You girls are myall – good enough for sluts' and 'You girls aren't pretty girls – nothing, rubbish girls'. The accusations met a deep silence. The Santa Teresa girls preserved their hush in the prickly intervals between each admonishment. Quietly, on the side, the Eastern Arrernte youth workers Liz and Michelle were

157 In respect of local sensitivities, I deliberately provide a very general description here.
158 Field notes, 23 September 2011.
159 Myall is an adopted, generic colloquialism used across the NT to imply someone has no knowledge or skills. Myall was an expression originally used by non-Aboriginal people to characterise traditional Aboriginal people as being wild or uncivilised.
urging the girls to get up and dance. They were caught in a triangle of worries: feeling for the young women, feeling for the senior woman who was upset by the girls’ reluctance, and feeling responsible for the success or failure of the camp as a whole. As this tense drama of IEK was unfolding, Karen (the white youth worker), equally quiet, watched on. For the camp to be considered a success, the young women had to be up and dancing.

The deliberately cruel cajoling from the older women eventually did its work: the Santa Teresa girls got up and danced, much to everyone’s relief. Such coercive tactics are commonly used to secure youth obedience by older women, and cannot be replicated by the white youth workers. The senior ladies soon got their ‘second wind’ and were singing strong. The young women twice performed the dance, listening in Arrernte and moving their arms and feet to the rhythm of the song.

The next morning after the night of dancing, we woke to dark skies and the welcome smell of rain. The senior women exclaimed that the ‘girls dancing last night brought the rain’. It was an affirming, positive and empowering thing to say: that the young girls’ actions, however reluctant in the creating, still influence country.

For me, this case study reveals a number of intersecting issues. It shows that white helpers are essential to getting an event organised but may have no role in the differential tactics and qualities of the transmission moments. The culture camp was initiated by Arrernte youth workers, but given real authorisation by senior Aboriginal women. Karen, the white youth worker, took care of all organisational interactions. In terms of community engagement, the organisational context of IEK and remote youth services, the importance of kin remains paramount, although on the surface it might not appear so.

The example also shows how a young adolescent like Kate has good common knowledge of plants that are regularly used; and that, especially in learning activities that have been formally organised, the expectation is that an extension or deeper knowledge will be forthcoming. At the same time, young adults may need haranguing to extend their knowledge through participation, and here the tactics involve a mixture of shaming and praising, calling attention to non-participation as a way of making it happen. For shame, as we have learnt previously, remains a

160 Field notes, 24 September 2011.
powerful pedagogic tool in Aboriginal sociality.

**Performative innovation and the arts: case example**

In 1996, Warumungu women in Tennant Creek recorded *mungamunga* (female ancestor) songs onto a CD aimed at helping ‘young girls’ to learn as well as targeting a broader national and international audience (Christen 2006, p.418). Working with musicologist Linda Barwick, the women recorded songs of their kinship and ancestral relationships to country (Barwick 1999, 2000). Embracing new technology, the senior women collaboratively produced a ‘new cultural object’ that enabled the ‘repackaging’ of cultural material (Christen 2006, p. 416). Over a decade later, a Warumungu song project with similar objectives took place, this one called *Winanjjara – The Song Peoples Sessions*, this time involving young and old Warumungu men. Barkly Regional Arts is a non-profit, grassroots arts organisation based in Tennant Creek.161 As the only regional arts body in the Barkly Tablelands, it supports over 800 artists in 12 remote communities.162 Core funding comes from the Northern Territory and Commonwealth governments, with grants for individual projects additionally secured from a range of partners and philanthropic organisations. The money is never guaranteed and it is always in the form of project-specific short-term grants. As the executive officer of Barkly Arts, Andy spends a considerable amount of his time looking for funding and writing submissions to translate local aspirations into real-life arts based IEK projects.

The *Winanjjara – The Song Peoples Sessions* project started with an approach by senior Warumungu men to Barkly Arts. The ensuing community consultations reveal the mobilising role of young people, despite their projected absence. As Andy explained:

*In our discussions with the older men about this project, their lament generally was that the younger people aren't learning. There was a whole consultation process, first of all with the older men, the song men themselves, the traditional owners. They asked us if we could record on country, some of their sacred songs, the song cycles.*163

The project incorporated two music streams: traditional and contemporary. For the contemporary stream, Barkly Arts invited Warren H Williams to take part. Warren is a nationally

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162 The Barkly Tablelands is one of five major districts in the NT, which include the Alice Springs, Barkly, Katherine, Darwin and Arnhem regions. Five hours north of Alice Springs, Tennant Creek is the hub of the Barkly region. The rich grasslands of the Barkly meant pastoralism was an early industry.
163 Interviewed 3 July 2012.
recognised Aboriginal singer and musician of Arrernte and Warumungu heritage who lives and works in Alice Springs. Warren’s involvement – as both a middle-aged Aboriginal man and a popular contemporary Aboriginal musician – added a dynamic quality to the project for young and old. Young people worked with Warren to write and sing songs in Warumungu. They were ‘singing in language’ and ‘actually learning something and appreciating Warumungu language’, and recording their productions in a studio with high-end equipment with Warren and the senior Warumungu men. The studio process enabled young men to receive accredited training, which also meant extra funding for the project.

The combination of a contemporary Aboriginal musician, senior Warumungu song men and sophisticated equipment with an attached professional mixer/producer added what participants called ‘zing’ to the entire song project. As Andy observed:

> We actually have a catch-cry which is called, ‘Everything has got to have a zing’, and it’s got to be really exciting for us otherwise we feel just tired and buggered. It’s got to be really, really exciting for the people that we’re working with and community artists and Aboriginal people, they should feel pretty excited and happy and enjoy it as well, so we try and put a zing factor into everything . . . we try and be adventurous and cutting edge.

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Intergenerational learning was the focus of the traditional music stream. A key outcome or product of having five older men, five middle-aged men and four young men singing and recording together was a CD compilation of traditional Warumungu songs that were recorded on country. The collection of songs recorded out bush was a repertoire of open songs, including open kujika (ceremonial) song cycles so that younger men could learn from older men but, even so, they had become rare performances.

During the recording of the songs out bush, Andy was impressed at the level of knowledge the young men had, despite the contraction in time available for male ceremonial life:

> I was surprised [during the recording of songs] at how many young men and certainly middle-aged men had really high levels of knowledge and performance of these traditional song cycles, which could go for up to 12 hours. I asked the younger fellas, ‘How did you learn this?’ and they said, ‘It’s from ceremony’.

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164 Field notes, 4 July 2012.
165 Interviewed 3 July 2012.
166 Open songs are not restricted to male-only ceremonial life but are open to women, children and the uninitiated. These songs can be performed in front of non-Indigenous people too.
167 Interviewed 3 July 2012.
The song project culminated with a launch of the CD compilation at the Desert Harmony Festival in 2011. It seemed as if the event brought the whole community of Tennant Creek together, Aboriginal and non-Aboriginal alike. At the launch, words of the Warumungu songs were projected onto a large screen. As Andy describes it:

. . . there was an audience of 600, and we had projected Warumungu language up on the screen. To have 600 people singing in Warumungu really brought tears to the eyes of all these old men on stage with their clap sticks and Warren as well, he was crying. And the joy was because this is the first time that there had been respect and effort shown to Warumungu, a really rich and lovely language – it was very, very moving.

One of the younger Warumungu men involved in the song project, Jamie, also described the launch as ‘a great moment, a great event, emotional’, adding:

To see someone like Warren, who is also from here, to get up and sing in our language like that and in front of everyone, the Tennant Creek community, and the kids to see that and young people like me to see that and be proud and say, ‘Hey, come on, this is on a CD, this is on stage, here, they’re singing it, why don’t we learn more about our language and keep it strong’.168

Jamie had learnt songs that are not part of the contemporary ‘everyday’ repertoire men his age would routinely listen to; he had learnt songs he would otherwise have had ‘to ask’ to learn.

I learned a bit more while we were doing that recording. I probably would have learnt, but I would have had to ask I think. But that recording, it was there [the song project], it was songs that old fellas don’t normally sing, don’t normally show us, but then they showed it ‘cause the recording of the CD, that’s why we had a listen to that and learnt more.

The Barkly Arts song project shows the confluence of institutional support and IEK transmission in the form of digitised performance. It provided a purpose for senior men to sing particular songs, songs that are not regularly performed. And it had a tangible end result, the recording and production of a CD of traditional Warumungu songs – a teaching resource that is now available for young adults on demand. As Andy commented, even if the young men ‘are not going to want to keep going out bush and learning in that way, having access to it [the CD] affirms their cultural identity’.169

But these are small outcomes from an external perspective. And for any arts project or community development initiative, funding is always an issue. To be in a position to kickstart

168 Interviewed 3 July 2012.
169 Interviewed 5 July 2012.
the song-recording work, Barkly Arts applied for and received $65,000 from the Australian Government under its Maintenance of Indigenous Language and Records (MILR) program. Barkly Arts itself put in a substantial amount of operational money for the project. The NT Department of Education and Training also provided funding as music industry training was a key part of the project and could be counted toward completion of a secondary education certificate. As the project progressed and its scope became clearer, further funding was required.170 Arts NT chipped in and an Aboriginal philanthropic agency in Alice Springs, Centrecorp, also provided some sponsorship.171 Extra funds were needed to launch the CD at the Desert Harmony Festival in Tennant Creek. A conservative estimate is that the song project cost over $200,000.172

Each of these pots of funding have their own biography of interaction and negotiation between organisations and Aboriginal people; each maps a network of interdependency that cannot be detached from the practice of IEK in the contemporary era.

Community arts provides an important platform for supporting knowledge maintenance as both a living and developing cultural practice, especially in remote and regional Australia with its largely Indigenous population. Arts-based projects provide resources or ‘hooks’ that are attractive to young people, partly because the different genres (music, performance, plastic and visual arts) signal both a respect for traditional references alongside a recognition of the need to entice and interest modern youth with contemporary media and pedagogical approaches with ‘zing’. As Andy observes:

. . . by us showing our deep respect and appreciation and enjoyment of the richness of Aboriginal culture, young people . . . see it as not just something that granny and auntie and uncle are doing, but it’s something that’s a major contributor to the overall Australian landscape.

And, I would add, what it also shows is that IEK-relevant events have become deeply intercultural and organisationally interdependent, in complex and varied ways.

170 The song project involved two different language groups, Warumungu in Tennant Creek and Yanyuwa from Borroloola. The Yanyuwa project was a women’s song project in collaboration with Shelly Morris, an award-winning contemporary Aboriginal artist who also has Yanyuwa heritage. I describe the Warumungu song project only in this case study.

171 The Yanyuwa/Borroloola component of the project received further funding from the Scully Foundation and the McArthur River Mine.

172 Andy, pers. comm., July 2012.
‘Smoking babies’: case example

Alukura is a branch of the Central Australian Aboriginal Congress (known locally as Congress), an Aboriginal-controlled medical service in Alice Springs. In Arrernte, alukura means ‘women-only place’ and, as the name implies, no men are permitted. It provides a women’s health and maternal and child healthcare centre located through the Gap173 on the south side of Alice Springs. Its services also include a grandmothers’ program that involves senior women (great-grandmothers and grandmothers) ‘smoking’ babies.

Arrernte families also smoke babies as a private family activity on land trusts or outstations as part of a tradition handed from mothers to daughters; however, a convenient option for town-based people is to have babies smoked at Alukura. Here, the smoking is usually carried out by a non-related senior woman who acts as a grandmother-in-residence. However, if an actual grandmother of a baby who is going to be smoked lives in Alice Springs, she is able to attend and be central to the activity.

I attended a smoking event at Alukura with Shari, a 19-year-old whose nephew was being smoked. Two of her paternal grandmothers were to carry out the smoking. Three of her aunties were also involved. The drawcard for Shari was that it was her baby nephew being smoked and it was her grandmothers doing the smoking. As became apparent, the role of intimate relatedness had a central role to play even in this popular town-based IEK activity.

Alukura staff, Aboriginal and non-Aboriginal, had prepared the space for the smoking. Tables and chairs were set up, cold water available, hot food and salads prepared, including kangaroo tails (see Photo 36).174 People came in private vehicles and some via the Alukura bus. There were about 50 female adults and children present. I had previously been involved in hunting trips with Shari and she is generally a reluctant participant, more content to stay at the ‘dinner camp’ all day than do anything too physical. However, it was her relationship to the baby being smoked which saw her commit to taking a leading role. Shari’s love and affection for her baby nephew motivated her to be involved in the process and practice of IEK. People’s feelings for each other is the glue of IEK and the currency of Local Knowledge systems. Emotion informs practice and contributes to the innovation in realising IEK in a contemporary landscape.

173 Heavitree Gap (known as Ntaripe in Arrernte, but usually shortened to ‘the Gap) is a gap in the MacDonnell Ranges. It is through this point that the main road and rail network from the south enters Alice Springs.
174 Frozen kangaroo tails can be purchased from local stores in Alice Springs.
'Relatedness' and attached emotion is the story of youth and IEK. So motivated, Shari readily joined other young women who were present to collect the *utnerrenge* / emu bush (*Eremophila longifolia*) branches for the fire pits (see Photo 37). No cajoling or growling was needed.

**‘Training camps’: case example**

Sandy Creek is part of an important watercourse not far from Santa Teresa and is known as a key location for harvesting wild yams. Like all creek and river beds in Central Australia it is usually a dry creek, only flowing (for a few days) during large rain events. (Central Australia at large is characterised as a place where ‘creeks run dry or ten feet high’ (Friedel, Foran & Stafford Smith 1990, p. 185)). We met Dora in an earlier case description, the Bright Gap youth camp organised by the MacDonnell Shire, where she oversaw the performance related to the butterfly dance. Dora was also key to the Sandy Creek camp happening, seeing the event as a ‘training camp’ for young Eastern Arrernte women in preparation for the annual Women’s Law and Culture meeting (Chapter Four).

While Dora initiated the idea for the Sandy Creek camp, it was materially realised through
the support provided by Akeyulerre, which provided four staff, a vehicle, trailer, fuel, catering, other food and sundries sufficient for 30 people.

This camp to Sandy Creek was considered an initial meeting to discuss and plan a number of training sessions leading up to the Women’s Law and Culture meeting. This annual women’s meeting is the largest in Central Australia, bringing together hundreds of women from over a vast regional scale, an event resourced and supported by the Central Land Council (CLC).

For the CLC, the Women’s Law and Culture meeting is a huge logistical undertaking. It organises the clearance and preparation of the site; liaises and negotiates with local communities and senior women about their availability, permissions and interest; resources the catering for hundreds of women; and provides pick-ups and transport to distant locations (sometimes a 2000
kilometre return journey). To cope, the CLC dedicates staff, working non-stop before and during the weeklong event, to supplement a dedicated position working full-time six months ahead of time.

The first funded and resourced Women’s Law and Culture meeting occurred in 1992, after a strong desire to resurrect women’s ceremonial life saw successful lobbying of the CLC between 1990 and 1991. Each year, senior women choose a different location or country.

As the bite of the late afternoon sun subsides on the day of the Sandy Creek planning event and a coolness enters the air, the young women assemble to listen to Dora. They are respectful in their silence as they settle onto swags or the red dirt, two nursing babies. There’s a feeling of seriousness in the air. Dora starts the meeting by saying, ‘You will be the grandmothers one day’ and so commenced a series of quiet, respectful exchanges alternating in Arrernte and English. The group discussed the number of training camps needed to learn particular songs and dance in the lead up to the Women’s Law and Culture meeting the following year. Six training camps were suggested. Throughout, the older women offered words of encouragement to the young women and appealed to them to attend the following year’s meeting. Dora told me later she was happy with the meeting.

However, things are not always as they appear on the surface. I was told by Sarah, who lives at Santa Teresa and who visited our camp, that ‘Santa Teresa mob are really scared about the women’s business [taking place] here this weekend . . . People went into town to avoid it.’ Apparently some husbands at Santa Teresa didn’t want their wives to attend the two-day planning meeting either, and the flip side, some women don’t want to leave their husbands. Sarah also suggested that the issue of shame and young women ‘showing their bodies’ was also a reason she had heard given for young women avoiding the meeting, and so travelling into Alice Springs to avoid it. As we were sitting in a group, Dora, overhearing Sarah’s remark, became annoyed, exclaiming ‘Young women won’t be forced to do anything!’

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175 Funding for the Women’s Law and Culture meetings is received through grants from the Australian Government via the Central Remote Indigenous Coordination Centres (ICCs). ICCs were once part of the Aboriginal and Torres Strait Islander Commission (ATSIC) service. ATSIC was disbanded by Australian Prime Minister John Howard in 2005 and no universally elected system of national indigenous representation has replaced it (Altman 2007, p. 2).
176 CLC staff member, pers. comm., 6 October 2014.
177 CLC staff member, pers. comm., 6 October 2014.
178 For example, Women’s Law and Culture meetings were held at Papunya (2013), Utopia, (2012) and Mount Liebig (2011).
179 Field notes, 28 October 2011.
180 Field notes, 28 October 2011.
Photos 38 and 39. Clap sticks or terurre are made from a branch of the arnguli (bush plum tree / Solanum lanceolatum). Making clap sticks requires concentrated skill. A young woman demonstrates her interest in learning 'old skills'. She spends several hours to collect suitable branches, strip the bark, shape then chisel and smooth them to make a pair of clap sticks. Older women used the sticks later that night.

Photos 40 and 41. Resource species that have a monetary value increase their contemporary importance. Here, bush medicines made from plant species are prepared for retail sale. Employment based around Traditional Knowledge requires certain tasks to be done repeatedly which builds on and refines contemporary practice.
Between the rumours and wild exaggerations around ‘women’s business’ that weekend, far more pedestrian activities took place. *Arrethe* / rock fuschia (*Erempholia freelingi*) was collected and prepared as a bush medicine. Selena, who is in her early twenties, diligently collected wood from an *arnguli* / bush plum tree to make *terurre* / clapsticks, deftly handling the tomahawk for an hour and a half (see Photos 38 and 39). Children collected small berries from a *Rhagodia* species to practice crushing up to use as a red hair dye, something children and young women also did in the olden days (see Photos 29 and 30, page 123). Shade and shelter was constructed, kangaroo tails cooked, jokes and laughter raced from swag to swag, while children traced stories in the sand and engaged in *tyepety*, an Arandic form of traditional storytelling (Green 2014) (see Photos 1 and 2, page 39).181

**Employment introduces repetition: case example**

One of the women who did not attend the Sandy Creek camp – a person whom I was expecting to see, for she normally goes on Akeyulerre-organised bush trips – was Olivia, a 22-year-old fluent Eastern Arrernte speaker. I caught up with her in Alice Springs instead. Why she didn’t attend is of less interest than her pinpointing of the importance of organisational interventions in IEK. Olivia is employed in Akeyulerre’s social enterprise Interrentye Bush Products, which makes and sells bush medicines (see Photos 40 and 41).182 Reflecting on her role at Akeyulerre, Olivia observes, ‘I guess it makes me feel part of something bigger. We are part of something that’s keeping our culture alive’.183 She has been working at Akeyulerre for two years. ‘A lot of people think I was always interested in culture, which I wasn’t,’ she says, adding:

> It was only last year or the other year that it just clicked, sort of thing, that it was important to me. So, I guess, that’s what made me appreciate culture more.

Olivia acknowledges that learning about plants and going out bush is a result of working at Akeyulerre:

> ... it’s only ’cause of where I’m working, I get a chance to do that [go out bush]. Otherwise, I probably wouldn’t be going out as much. If I wasn’t doing that part of my job, it would probably be like once a year, maybe once every two years, ’cause I’m living in town now, but the rest [of my family] is still staying out at Santa Teresa, they go [out bush] every fortnight.

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181 *Tyepety* is where leaves and sticks are used to make objects of everyday life, like shelters and windbreaks.

182 The young Arrernte women who work in the enterprise are guided by senior women in plant identification, plant uses and harvesting bush medicine species from known stands.

183 Interviewed 29 August 2012.
Employment at Akeyulerre brings a range of benefits to Olivia, from the financial to the social and cultural. Significantly, a benefit of employment, by its very nature, is it that it provides much needed repetition of learning practices. Olivia summarises this as:

‘Cause we’re doing it here all the time [collecting and making bush medicines], it’s like repetitive and you don’t really have to think about it because you know.\(^{184}\)

If one of my key points has concerned the different ways older and younger people have negotiated and performed their identities in the context of ongoing socio-cultural transitions, here I am emphasising how the institutional environment has become the ‘everyday’ that once consisted of country alone, a point which makes the role of brokers – Aboriginal and non-Aboriginal – even more critical to the reproduction of IEK.

The Walk: case example

Wendy, a non-Indigenous woman, has worked in the Land Management section at the Central Land Council for close to a decade. Once based in the Tennant Creek regional office, she now calls Alice Springs home. As a Women’s Land Management Officer her role is to support the IEK and land management aspirations of Aboriginal women (rangers and traditional owners) across the expansive region serviced by the CLC.\(^{185}\) The position is a relatively recent creation, a CLC response to the growing involvement of Aboriginal women in ranger groups, itself a belated correction to an earlier gender bias in these roles. In 2014, out of the 11 CLC ranger groups, seven have both men and women while four remain men only.\(^{186}\)

It was in Tennant Creek that Wendy was first introduced to, and worked alongside, Aboriginal people. She cut her teeth in Aboriginal land management on Warumungu country, patiently taught by Warumungu people. Warumungu people have also benefitted. In Wendy they had someone who was cognisant of wider power imbalances, someone who had the technical skills to both absorb bureaucratic pressures while simultaneously realigning state requirements to meet their local aspirations.

How Aboriginal people administer the cultural interface in remote Central Australia is succinctly described by Sarah Holcombe in ‘Luritja Management of the State’ (2005, pp. 222–233).

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\(^{184}\) Interviewed 29 August 2012.

\(^{185}\) During this research I participated in two workshops organised by Wendy; one was a CLC Women’s Land Management Forum in October 2012 (two days); the second a three-day Bush Medicines Workshop in May 2013.

\(^{186}\) CLC staff member, pers. comm., November 2014.
Playing off Homi Bhabha’s concept of a ‘third space’ and his attempt to pull away from binary models of power, Holcombe observes that it is in the cultural interface or the ‘in-between space’ in settings such as local government or community councils that translation and negotiation of bureaucratic processes occurs (Holcombe 2005, p. 226). Holcombe characterises Aboriginal male leaders, or ‘big-men’, as the ‘brokers’ who act as a ‘buffer’ between community members and white bureaucracy (Holcombe 2005, pp. 226–227). From my observations, the helping white is also a buffer.

Wendy occupied this ‘in-between’ space, juggling the goals of Warumungu people and the state-defined natural resource management priorities and targets set for the organisation she worked for. An early activity that cemented the relationship between Wendy and Warumungu people was The Walk. Wendy explained to me that in March 2007, Aboriginal women from different communities in Central Australia attended a Women’s Land Management Workshop, hosted by the CLC, in which community representatives were to develop project ideas and then prioritise one for the CLC to fund. The Walk was the concept of Mona Haywood, a senior Warumungu woman (a great-grandmother in her mid seventies) who voiced an ‘idea that had been floating around the community for some time’, and had her suggestion receive group favour.187

The official name of the eventually funded project was ‘Walking and Sharing Stories from Bonney Well to Barrow Creek’; but in everyday use it was simply called The Walk.188 The Walk followed a traditional travelling route, in essence a path of water sources or soakages, used by Warumungu and neighbouring Kaytetye, Alyawarr, Warlpiri and Anmatyerre people. Soakages are underground ‘wells’ that can be dug from dry riverbeds or spinifex grass plains. Soakage sites mark the travels of ancestors and have sacred songs and ceremonies attached to them; they are both ritually and geographically significant (Memmott 1998, p. 208).

Senior Kaytetye and Warumungu people led a group of middle-aged and young adults.189 For the first time, this younger generation experienced what it was like to foot walk over their country, 150 kilometres in total, following the route provided by soakages during the day and

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188 Funding for the walk came from the Australian Government’s Healthy Country, Healthy People Schedule, providing each group with $25,000. Further funding was sourced from the CLC hosted IEK Sharing Knowledge program to support male involvement, including food, wages and a contribution to the media training.
189 There were 20 senior people and 45 middle-aged and younger people on the walk.
camping on ancestral lands at night. From sunrise to sunset, young people heard personal and family stories and the songs relating to soakages as they travelled over that country. Now filled with sand by summer storm and rains, long ‘orphaned’ soakages had not been forgotten and were revitalised along the way.\footnote{See Memmott (1998) for ‘tracking’ and revitalising soakages on Alyawarr country, an Eastern neighbour of the Arrernte} Over the long course of The Walk, the group revived 33 soakages.\footnote{Thirty-nine soakages had been identified during community consultations, but not all sites were able to be accessed.} 

The Walk was not undertaken by 65 Aboriginal people in isolation but was supported by a kitchen crew and a support crew. The kitchen crew catered, as the name would suggest, providing meals and tending to cooking implements, cutlery and plates, managing a pantry, preparing food and cleaning afterwards, for 15 days straight. There were three support teams who worked a five-day rotation roster, using six vehicles complete with drivers. An Aboriginal media organisation, Pintubi Anmatjere Warlpiri (PAW) Media, was contracted to provide all media equipment and a trainer for five weeks, for editing workshops were also held on completion of the walk to manipulate all the material that three video cameras, sound microphones and two digital still cameras used by young people had captured during the event. The subsequent video footage was used make 10 short films about traditional water sources and youth experiences of the walk.

The young people were also Wendy’s ‘messengers’ and leading up to the start of The Walk helped get information to people across communities:

\ldots so I would send them faxes or information, and they would do all this running around for me and they would talk to people and they really did talk to people, like, they took that quite seriously.\footnote{Interviewed 25 June 2012.}

Wendy tells me that ‘without older knowledgeable people, nothing would happen,’ and yet, from an organisational and bureaucratic perspective, there is a great deal riding on the participation of young people and their institutional interlocutors. Sometimes she put the narrative of ‘elders’ to one side, in quite revealing ways:

\textit{I stood up in front of big groups of people and I basically said, ‘If young people are not there on the day, on that first day, I’m going to pack up and I’m going home’ because that was my requirement to use that money [funding], that money was there for young people}
I have emphasised how senior women influence IEK organisational activities and the role of helping whites. I have also demonstrated the importance of multi-media in the IEK youth space and how the absence or presence of experts and technologies can make or break transmission events too. What are the key implications of these otherwise unremarked modes of IEK? The uptake of new media and Indigenous media practice for cultural maintenance has a long history in Central Australian Aboriginal communities (Hinkson 2002, p. 201; Michaels 1985, 1986, 1989). During this early time of video production, video production inspired country visits, hunting expeditions and the recording of oral histories (Hinkson 2002, p. 203). Where my research differs is that I show how media is now being used in applied settings within Aboriginal land management and IEK teaching and learning practices. This is a relatively recent phenomenon. From The Walk, I noted how Indigenous media practice in the IEK space includes practice; for example, of cleaning soakages and burning. Young adults are situated learners in the activity (cf. Lave & Wenger 1991), there as social actors and not as passive sideline spectators. Young people’s use of media in Aboriginal land management and the IEK space is not only about documentation and production but about practice and experience. Their involvement in activities like The Walk is creating their own memories, stories that they can share in the future, showing how the models for transmitting songs and stories using unmediated oral transmission over large ritual catchments have been renovated. And they are also the rationale for many cultural events, the premise upon which funding might be secured. Considered together, this makes their disappearance from general IEK scholarship all the more mysterious.

**The role of grandmothers**

What I would add to the picture of youth agency and organisational brokers is the role of senior Aboriginal women in the Indigenous sector as at least equivalent to ‘white brokers’ as the mediators of interculturality within the organisational space (cf. Collman 1988, p. 5). And due to
the collective trauma of demographic change and its impact on socio-cultural balance, senior women carry additional gendered responsibilities in the context of IEK. An important clarification: not all senior Aboriginal women involve themselves in this intercultural space. In my experience it is the women who have high levels of IEK (and want to practice this knowledge), are confident in intercultural contexts, are community minded and concerned for youth, and who still have their health and mobility, who are the most actively engaged. The point is that it falls to women to create, milk and manage opportunities for organisationally resourced IEK transmission.

I have also illustrated how, within the organisationally supported IEK space, apparent from interactions between young and old, sit unmet expectations that each generation has of the other. Both sides seem to feel let down, which I would argue stems at least in part from the intensity of modern learning. This condensation, this compacting of the IEK moment, has to be organisationally auspiced because IEK events are now so resource intensive (see Photos 42, 43 and 44). This is the double whammy of IEK in contemporary contexts. In addition, the organisational space also means that Aboriginal youth are now learning from older Aboriginal people who are non-kin, which is a massive if somewhat unnoticed change.

I have also indicated how Aboriginal women have become particularly astute in how they manipulate organisationally facilitated opportunities to return to country. Senior women have many family members who are financially dependent on them (Foster, Mitchell, Ulrik et al. 2005; Austin-Broos 2009). Due to this high burden of dependence, they are unable to financially resource trips or culture camps themselves. Securing the assistance of organisations is one way of overcoming the financial short fall. Such canny husbanding of resources has been a feature of Aboriginal resourcefulness for some time (Christen 2009). This resourcefulness is both a sign of the resilience of people's commitment to IEK and of the deeply disrupted circumstances in which that commitment is enacted.

In the 1970s, with the establishment of many organisations in Central Australia, Aboriginal men (who were cultural authorities and leaders) were the public face within the newly created intercultural space of the Indigenous sector (Tonkinson 1978; Gerritsen 1982; Gale 1983; Myers 1986; Edmunds 1996; Langton 2008). It is now more frequently recognised that male
Photos 42, 43 and 44. Youth camps based around IEK involve many people and are resource intensive. The camps require food, equipment and vehicles. Without these necessary items, along with the 'right' people, youth camps could not happen. IEK and its practice are highly vulnerable without adequate resources and support.
and female roles, while being separate, are also equal and complementary (Bell & Ditton 1980; Bell 1983; James 2006). As a middle-aged Arrernte man observed, ‘Men have got their Law and women have got their Law’. This Aboriginal male reference to male and female Law is significant: it is a recognition that ancestral women *co-created* the world, ‘sometimes with men, sometimes in opposition to men or in conflict with them, or even separately from them’ (Berndt & Berndt 1992, p. 13).

Arguably, Aboriginal epistemology has always recognised the roles of both men and women. More accurately, it is the white interpretation of the role and status of women in Aboriginal societies that has shifted over time; shifts linked to the feminist movement and hard-won gains made in advancing the status of women (Jacobs 1989; Moreton-Robinson 2000). Historically, there was the view that women’s roles were inferior and subordinate to Aboriginal men (White 1978; Gale 1983; Langton 1997). Some Aboriginal people have also come to believe this. In workshops in Alice Springs, if a female traditional owner does a ‘welcome to country’, I have heard local Aboriginal people dismay ‘that a woman is doing the welcome to country, when it *always* used to be a man’. The complaint ignores how ‘welcome to country’ modes of address are themselves a newly invented tradition, born of organisational intercultural rituals of recognition (cf. Merlan 2014), which, in claiming it is a male preserve, attempts to cement a reconstructed and anachronistic interpretation of Aboriginal cultural tradition into place. More importantly for my purposes, is the visibility this gives to Aboriginal women as the key brokers of IEK activities within the Indigenous sector.

**A patchwork of created opportunities**

In this chapter, I have suggested that it is middle-aged and senior Aboriginal women who play the role of IEK brokers, using various strategies, including incorporating pivotal anxieties about youth dysfunction, to create opportunities for going on country or passing on traditions. Organisations figure prominently in the orchestration of IEK and intergenerational learning as efficiencies in observance of organisational timetables complement the restrictions on family time and family learning that have co-evolved with settlement and sedentarisation. In short,

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195 Field notes, 9 April 2012.
196 Field notes, 18 September 2012.
the new formal contexts for intergenerational learning provided by a strategic mining of organisational opportunities has replaced the once expansive informal and formal modalities of ceremonial and ritual life.

As discussed previously, learning within the family occurs in concentrated form during school holidays, public holidays and weekends. IEK projects or activities that happen within organisational time take place during the working week, Monday to Friday, as well as on the weekend. In this way, Aboriginal people are stitching together different IEK points in time and bringing together spatial, material and knowledge resources to produce a more complete approach to IEK than that which is usually available to them in everyday life. While young people are seemingly absent in this configuration, reflecting their conceptual marginalisation, they are nonetheless a mobilising device: concern for them and their future mobilises women and organisations to act. Without them, events do not succeed. Without them, notice is not put out to other young people to participate.

Aboriginal people are piecing together IEK events, learning through a patchwork of created opportunities and through engagement with various organisations in the Indigenous sector.

By highlighting the key role of Aboriginal women in IEK and knowledge maintenance, I don’t set out to occlude the role of organisations in controlling and creating many of the resources necessary for bush trips. As we have seen, there’s a proliferation of organisations involved, providing food, transport and personnel. There’s also a bunch of helping whites who do a lot of running around to make bush trips and youth culture camps possible. Yet young people, when surveyed, rate these organisations as unimportant in their learning (see Figure 13, page 114), a contradiction that is easily explained in terms of women’s labour and the lack of recognition associated with it (cf. Povinelli 1993) and because of the self-effacement of the professional helper (Kowal 2015). It is also explained through the kind of conventions of analysis (in which, for example, ‘elders’ must be valorised) that ironically also disappears young people’s labour from explanations of what and who matters. Now and then anthropologists have considered the role of Indigenous and White people in the Indigenous sector and the dynamics of power and influence working dialectically between them (Myers 1986; Sullivan 1996; Merlan 1998; Martin, D 2003; Batty 2005; Martin 2005; Lea 2008; Sullivan 2008). However, the role of
young people and how they, by both their presence and absence, shape power relations and organisational negotiations, remains understudied. Young adults have a default role in the organisational domain and the intercultural space, a role that is often invisible, but is critical just the same.

‘Helping whites’: the new Aboriginal middle generation

Perhaps most troubling of all is the implication that within the IEK intercultural space, the helping white has become the new middle-aged Aboriginal generation. They are a stand in or a proxy for a slice of the population whose disappearance is the true index of the troubles besieging Aboriginal communities in regional and remote Australia. That the dependency on organisations is due to poverty is a first-order explanation. Scarce resources, money, vehicles and camping equipment creates dependency. That it is due to radical demographic transformation is less often remarked. Helping whites are not just organisational but cultural intermediaries, partially filling the gap left by the missing middle-aged generation. The space – the generational void that was and is still being created through Aboriginal interactions with the state – is ironically now also being ameliorated by government-funded organisations.

Moreover, the helping white also provides the recruitment services usually performed by middle-aged people. Helping whites do the community consultations not only to determine the location of bush trips but also to ascertain the involvement and participation of required senior people and to galvanise the participation of young people.

As noted, the self-effacement of white helpers is a common occurrence in Aboriginal organisations, a mode of being which Kowal argues is a form of settler-colonial deception (Kowal 2011, pp. 313–333). Good or bad faith aside, organisational relationships cannot be realised without the commitment and support of white employees who paradoxically work hard to keep their role backstage (Haynes 2009; Kowal 2015). For non-Aboriginal people, commitment to supporting self-determination and Aboriginal-controlled organisations means taking a back seat publicly while still being very influential in terms of finances, organisational priorities, policy interpretation, consultations and governance (Haynes 2009, pp. 111–148).

This mutual impulse to recede the importance of organisational intermediaries means that the
role that youth workers, multi-media lecturers, art coordinators, land management staff and so on, actually play as interested third parties mediating older and younger generations is also obscured. I argue that organisations not only fill the role of intermediaries between young and old but, in so doing, they are replicating the role of the middle-aged generation that in some communities has been decimated. Aboriginal organisations are key to this substitution effect, filling genealogical disappearances with white intermediaries or helpers. The Indigenous sector plays an important role in Aboriginal people’s lives, not just for delivery of services but for facilitating the incorporation of helping whites and organisations into Aboriginal social realms and family structures (Collmann 1988, Holcombe 2005, Batty 2005, Hamilton 1972).

Co-dependencies

Incorporating the new into the old has been a consistent response to contact throughout Australia (Baker 1999), building on an ability to have major Dreaming tracks and actions seem frozen in time despite the fact that the very human local groups sustaining that knowledge ‘are, in reality, emergent and ephemeral entities that do not necessarily survive to endure the vicissitudes that best human life’ (Sansom 2006, p. 154). In Indigenous Australia, the assimilation of new knowledge has always been a selective and progressive process based on compatibility with local belief systems (Tonkinson 1974).

The incorporation of organisations into people’s lives is a response to the many external forces that now shape Aboriginal worlds. It’s a sign of people’s determination to keep things going that they incorporate organisations into their teaching and learning repertoires. This integration of organisations into the Aboriginal knowledge system does not sit by itself nor is it context free. Rather, the conditioning and the shaping forces behind organisational learning most often are out of sight, both in terms of official histories and personal accountings. For many reasons – from the introduction of compulsory schooling to a whittling away of Aboriginal lands – learning possibilities are compacted and dense, and people have got to make the most of the opportunities that they also help create. Senior women are not only seizing openings and manipulating them, but are actively producing opportunities for themselves and young people.

197 Change and adaptation are commonly explored themes in Australian anthropology (Berndt 1977; Swain & Rose 1988; Musharbash 2008; Austin-Broos 2009).
all structured around an absent generation: the middle-aged. As I have also argued, family and organisational learning contexts are co-dependent and complementary. For young people (like Olivia and Jamie), IEK in an organisational and intercultural space allows them to ‘feel like they are part of something bigger’. Within the organisational space, IEK becomes a ‘product’ (events, CDs, DVDS, launches). Creating these IEK products is important for contemporary Aboriginal youth and part of what they now expect learning moments to comprise. The process behind the creation of these products is important to senior Aboriginal people. When they are able to participate, the middle-aged generation supports both young and old. Multiple generations are involved in IEK and they are all dependent on each other and increasingly dependent on the organisational space.

In this chapter I have shown how organisations have been strategically incorporated by Aboriginal people into their lives to provide new and highly diverse ways of IEK transmission and practice. I have found that the deliberate integration of organisations into IEK acquisition and transmission strategies applied by Aboriginal people ensures an expanded repertoire of knowledge re/production. This enables more intergenerational learning opportunities; resourcing; and new opportunities for learning deeper theoretical knowledge, the kind of knowledge that is no longer used in the normal cut and thrust of everyday life.

In what follows, I move beyond organisational interactions to examine pedagogical practices from the point of view of embodied relational interactions between young and old to better understand these fundamental changes in learning patterns and trends.
This chapter details the processes or ways that young Aboriginal people learn, acquire or experience IEK through intergenerational learning. I describe the personal interactions between young and old in order to better understand the cultural transmission of IEK in contemporary times. While the previous chapter drew on case studies to showcase the variety of ways IEK is being used across platforms, disciplines and in organisations, this chapter weaves together interviews with Arrernte and Warumungu youth, together with interviews with older Aboriginal and non-Aboriginal people and their observations of learning moments and events between the generations.

Four key findings are emphasised. First, I show that despite immense change to Aboriginal lives, traditional processes of learning remain in play. Second, I detail the additional development of what I call an ‘intensive pedagogical approach’ to IEK learning and teaching. Western education and the grammatisation of formal knowledge have altered the way generations interact and have modified their expectations of each other. Third, I document the tensions between observation and practice in contemporary learning processes. Youth experiences of learning are hampered by an increasing disconnect or decoupling between observation, repeated practice and therefore accomplished performance. Whilst conceptual knowledge is actively being re-imagined and transformed, opportunities to physically act on such knowledge are reduced. Fourth, I present youth perspectives on cultural transmission, including the challenges they face and their critique of the older generation.

Research on IEK and intergenerational learning in Australia has seldom canvassed a critical
Photos 45 and 46. A boy (in red and white T-shirt) is with family members at a soakage. The young boy looks on as they dig to clean out and revitalise this important water source. He listens to the instructions older women give to the younger women.
youth voice even though young people do have something to say about cultural transmission. Older people who have worked tirelessly to maintain IEK have had more opportunities to discuss concerns and therefore voice their criticisms of younger people. It is not my intention to reinforce a dichotomy between young and old; rather, it is to suggest that the processes of intergenerational learning are inherently integrated, and are thus more complex than simple explanations of exasperated elders and disengaged youth would have us believe. A more nuanced explanation of cultural transmission as it occurs in the 21st century is required, showing that there are vulnerabilities, disappointments, excitements and opportunities for young and old in this transformed learning space. To begin, let us return to a major theme of this thesis: the resilience of Indigenous learning processes in the face of indescribable change at every level, from intimate to superstructural.

**Young people learn through ‘watching’ and ‘helping’**

Characteristics of traditional learning processes persist despite contact with a dominant white settler society over many generations (see Photos 45–48). Young people continue to say they

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**Photos 47 and 48.** With observation comes practice and learning. The young boy then plays at digging his own soakage. This early play builds his confidence.
learn by ‘watching’ and ‘helping’; observation and practice remains core to IEK acquisition, as 24-year-old Dell explains:

_Ulkemene [old woman/grandmother] would say, ‘Look around first’. Ulkemene would be telling me to look around. She would be pointing to the ground, showing me. She would say, ‘We sit down and dig this one’. Old lady would sit down and dig first. We would sit and look. When you are little, you are watching and helping. When you get bigger, then you do it. Ulkemene is watching you then._198

Dell’s story is a demonstration of ecological learning taking place by ‘helping’ or assisting adults in work activities or peripheral participation (cf. Lave & Wenger 1991) and through observation, imitation and supervised or guided participation (Rogoff 1990).

Wendy, who organised The Walk that involved multiple generations walking from soakage to soakage over two uninterrupted weeks, notes:

... _people are learning from a young age through observation. They might not know what they’re looking at but they’re learning how to observe. I don’t think explanation always follows observation but they’re learning the art of observation._199

Children and young adults learn not only from those older than them, but also from each other in participatory activities (Lave & Wenger 1991). Nineteen-year-old Cathy reflects on digging for _yerrampe_ (honeyants / _Camponatus inflatus_). While she was digging she was assisted by younger children. In this instance, adolescent Cathy was the peer teacher. Cathy comments:

_Usually the younger kids just watched or they’d be there to help – to go and get something if we were digging for something, just kind of little workers and little eyes watching what was happening._200

Peer learning was a feature of life in the olden days, but then it was done in the context of immediate and closely related kin and proportionally there were less peers compared to adults (cf. Condon 1987). Adults would set off to hunt for the day, leaving behind children with old people. Children had to be self-sufficient as they waited for family to return, catching birds and lizards and rehearsing survival skills in play (Lowe 2007, p. 71). In turn, smaller children learnt from older children (Turpin 2003). Nowadays, peer-to-peer learning is taking on a greater importance due to the demographic disappearance of older Aboriginal men. Those young

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198 Interviewed 31 August 2012.
199 Interviewed 25 June 2012.
200 Interviewed 22 October 2012.
Photo 49 and 50. Children receive some instruction and guidance but mostly it is up to them to learn by doing. With sharp knife in hand, a ten-year-old girl cleans the intestines of *kere aherre* (kangaroo). Adults notice children with characteristics such as independence, self-motivation and a desire to learn. Adults and older peers tend to provide corrections only as needed.

Photo 51. Young women perform the role of ‘workers’ on a youth camp. They work in relationship to, and under the instruction of, older women.
adults who have learnt from knowledgeable slightly older cousins will teach their same-age peers. This is also the case with Cathy:

A couple of days ago, I took out a couple of my friends from in town. They’re more urbanised and they’ve never really been gone for yerrampe [honeyants] that much. They were all a bit loud and playing music, and I’m like, you’ve got to sit down quiet when you’re digging for yerrampe. They’re shy. At first, it was just me sitting down myself and then they were sitting away, and then one would come up and kind of watch what I was doing and then go back, and then the other two would come and sit down and really watch what I was doing.201

Another persistent characteristic is that responsibility for learning rests with the learner. As linguist Dianne comments:

There’s not a lot of talking and explaining; there’s some, but it’s not like a [dictated] lesson . . . It’s more the onus is on the person wanting to learn, to look very carefully and maybe to ask some questions.202

Those young adults who are now willing to ‘help’ and ‘work’ most likely had these same eager characteristics as children, unconsciously singling themselves out and demonstrating themselves as learners (see Photos 49 and 50). The willingness to help solicits and reinforces older people’s willingness to teach (see Photo 51).

In the family domain, young people continue to learn from multiple generations. When I ask Cathy if she has learnt from only one older person, she tells me ‘no’, she has learnt different things from different people:

You going to learn from your paternal or maternal grandparents, you’re going to learn a lot obviously off them, because you’re going to be with them. You’re going to have different relationships with everyone . . . there’s one you turn to for this and one you turn to for that.203

In her unequivocal response, Cathy raises an important point. Not only do young people learn from multiple relatives and generational levels, they are going to learn different things from different people. Even within a family group, expertise is differentially spread as are the skill levels and personal interest in particular activities. The fact that 21st century Aboriginal youth continue to learn ecological knowledge from a comparatively wider relationship network points

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201 Interviewed 22 October 2012.
202 Interviewed 6 November 2012.
203 Interviewed 22 October 2012.
to the resilience of what commentators often call ‘traditional’ IEK learning processes, even in the absence of close relatives. It also helps explain why the myriad changes to intergenerational learning transmission are usually glossed over, when at the broad level of description it remains true to say that elders do teach young people. The particularities of how this occurs show the tactics and fragilities involved.

Levi’s story demonstrates a key youth strategy, which is to deliberately seek out and engage extended kin, to make substitutions if immediate family members are missing. I first encountered Levi and his challenging family situation in Tennant Creek where (as illustrated earlier) I learnt that his uncle didn’t take Levi’s interest in learning seriously. In response to this, Levi actively called on a range of extended kin in his search for knowledge and identity.

To overcome the loss or absence of close male kin, young Aboriginal men like Levi draw on an extended family networks to actively engage with IEK. I have called this absence of male kin the ‘disappearances’ of middle-aged and senior male relatives from the lives of young adults and asserted the importance of both peer networks and female relatives in the tactics of substitution. Levi’s story also demonstrates that while young men may have fewer available older men to learn from, the structural basis of their learning – an extended kinship network – persists. Yet it is no bed of roses. While young adults may still have opportunities for observation, they have radically reduced opportunities for putting what they have seen into practice to the point where it becomes instinctive ‘body-knowledge’.

**An intensive pedagogical approach**

International ethnographic accounts of IEK and intergenerational learning show that, ideally, children acquire knowledge through hands-on experience and observation rather than through formally organised teaching and instruction (Stross 1973; Ruddle & Chesterfield 1977; Katz 1986; Borofsky 1987; Katz 1989; Ohmagari & Berkes 1997; Zarger 2002). The introduction of formal schooling changed the patterns and routines of daily life, undermining the socialisation and teaching influences of the older generation and changing the way knowledge is ‘dosed’ (Condon 1987, Burbank 1988). IEK is based on observation and repetition of practice in everyday settings, but the routine opportunities for repeated performance and practice have
drastically diminished to days spread across three months a year coinciding with school holidays (as outlined in Chapter Four). This fundamentally alters the intensity of IEK learning and teaching. Time is an essential component of IEK and the scarcity of sufficient time to practice requires a more intense response to the opportunities that are parsed from both kin and organisational networks. When Aboriginal woman Lorna Tennant states, ‘I use my time differently from my mother’ (1983, p. 85), she eloquently describes a revolutionary change between the generations. Describing a day in the life of her mother, from hunting and gathering plant foods to feed her family, collecting dry grass to make bedding, digging for water and making material goods, Tennant contrasts this with her own life and its needs, noting that ‘Keeping a house and a family in proper order today, too, takes time [away] from doing many of the things my mother would have been doing during the day’ (Tennant 1983, p. 85). Keeping house is part of keeping to the institutional rhythms of liberal settler society, with the need for a fixed address, a system of regular payments and, of course, attendance during the compulsory years of formal schooling.

Knowledge acquisition and transmission experiences are compressed and compacted within what I call an ‘intensive pedagogical approach’. Modern conditions have shaped the exigencies of this new and necessary pedagogical approach. As discussed in the previous chapter, this compaction is so resource-intensive and expensive it usually has to be auspiced by an organisation. Previously, learning occurred through co-presence and immersion with few externally imposed time restrictions (within the constraints of seasonality, weather and the availability of water and food). In contrast, the current situation is framed by circumscribed time and geographic limitations, patchy availability of resources, a narrowed social base and resulting pressure to learn and teach within serendipitous or carefully plotted opportunities (see Photos 52 and 53).

**History of formal Western schooling**

In her overview of Aboriginal education in northern Australia, Christine Walton makes the point that the introduction of schooling was an ‘integral component of colonial policy’ (1993, p. 59). Western schooling was used to ‘civilise’ Indigenous populations. Ethnocentric discourses around Western and non-Western, literate and oral societies, reinforced categories of ‘primitive
Photo 52. An opportunity to tell a children’s version of an Altyerre (creation) story came at the end of a two-day camping trip. By happenstance the two species necessary for the story to be told, the arlewatyerre / sand goanna and atyunpe / perentie were successfully caught. At one level of meaning, the story is about the painting of body designs. Each species took a turn to paint the other; however, one was messy and rushed its painting. This causes upset and anger and, to this day, they dislike and avoid one another. The story indicates people’s knowledge that the two species do not occupy the same ecological niche. It also encodes a moral about reciprocity and care when doing something for another.

Photo 53. People draw upon organisations to help with knowledge transfer and practice. When organisations are involved, new technologies are introduced which assists with how stories are recorded, re-generated and applied. Here, two professionals audio and video record the telling of an Altyerre narrative. Increasingly, younger Aboriginal people use modern technology to help document and understand IEK practices.
and advanced, simple and complex, developing and developed, traditional and modern’ (Goody 1977, p. 2). Literacy was and is viewed as a prerequisite for entering the modern world and illiteracy as a feature of inferior or primitive cultures (Besnier 1995). Consequently, the teaching of reading and writing has been a core focus since the first mission schools in Central Australia (Kral 2000).

The colonial resolve to progress the ‘evolutionary’ process focused on Aboriginal children and adolescents (Burbank 1988). State and mission authorities targeted ‘the young rather than the old’ and particularly ‘school-age children and teenage girls’ (Tonkinson 1988, p. 65; Burbank 1988, p. 127). Missionaries held sway over nearly every domain of Aboriginal life: they controlled the movement and location of people, what people did in their ‘free time’, the food people ate, what young people could imagine becoming, and where and how children learnt (Burbank 1988). Historian Peter Read observes that before 1970 in the Northern Territory all children raised on missions were likely to have been separated from their families (1995, p. 275). The history of institutionalised schooling in Central Australia begins with mission schools and pedagogical practices around literacy.

To the west of Alice Springs, school education for the Western Arrernte started in 1879 with the establishment of the Hermannsburg Mission School (Kral 2000, p. 49). Missionaries enticed children to attend with food and ‘many parents were quite willing to leave their children in the school when food was scarce only to reclaim them during the good seasons’ (Schmiechen 1971, p. 76). In Alice Springs itself, Eastern and Central Arrernte speakers were introduced to the routines of a school class three decades later. The institution known as ‘the Bungalow’ was established in 1915 to account for the growing population of mixed-race children, enclosing them for cultural discipline and education in English (MacDonald 1995). In 1935, the Catholic Church established a school primarily for Eastern and Central Arrernte people living in Alice Springs. The Little Flower Mission was built at the southern end of the Bungalow reserve (Coughlan 1991, p. 48). By 1942, as part of Australia’s involvement in the Second World War, 204 While it is not my intention to focus on the benefits or otherwise of western education, understanding that literacy is also analysed in terms of deficit is nonetheless important to bear in mind when considering the constrictions education has placed on vernacular approaches to IEK pedagogy (cf. Eickelkamp, Simpson & Wigglesworth 2008; Kral 2012). 205 The policy of removing mixed heritage or so-called ‘half-caste’ children from their family environment is known as the Stolen Generations. Members of the Stolen Generation were often permanently separated from kin and country (Haebich 2000; Pilkington 2001; Kruger & Waterford 2007). This history is part of the backdrop of radical change I sketched in Chapter Five regarding transformations in the socialisation of knowledge.
Alice Springs had been transformed into an army town. As a result, the Little Flower Mission was shifted to Arltunga, 110 kilometres east of Alice Springs (Donovan 1988). By 1953, concerns over a diminishing and cyanide-contaminated water supply at Arltunga forced the Catholic mission to move 85 kilometres southeast of Alice Springs to Santa Teresa. Further north of Alice Springs, the Aboriginal Inland Mission established itself in Tennant Creek in 1939 and began providing basic education. In 1945 the mission relocated to a place that was once a ration depot called Phillip Creek. At the Phillip Creek settlement, children were separated from adults so that they could be taught Christian values and receive a Western education (Christen 2009, p. 52). From 1950 onwards, the Commonwealth Department of Education provided funding to schools on missions and pastoral properties, which became government agents in education (Parbury 1999, pp. 73–74). For instance, a school was established on Banka Banka Station by Mary and Phillip Ward in 1960.

School education was ‘partly to educate and partly to segregate the children from the influence of adults’ (Harris 1990, p. 397). The Catholic mission on Eastern Arrernte lands forbade children to speak Arrernte in the dormitories or in the school (Harmsen 1993, p. 154). The Lutheran missionaries on Western Arrernte land banned ceremonies in the vicinity of the mission (Jones 1992, p. 120). In Tennant Creek, strict social divisions between children and adults camping in the vicinity of Phillip Creek mission was enforced with children getting the ‘stick’ if they were caught escaping to visit family during the night or on weekends (Christen 2009, pp. 52–53). For Warumungu youth at this time, it meant that contact with elders decreased, whilst peer group social networks expanded (Christen 2009, pp. 52–53).

**Literacy and learning**

The issue of literacy in Aboriginal education remains at the forefront of Australian Government policy and continues to be the focus for Aboriginal education in the 21st century (Kral 2010; Nguyen N & National Centre for Vocational Education Research 2010). Yet despite several decades of changes to curricula, policies and practices, and the introduction of new pedagogical frameworks, schools in the Northern Territory continue to fail both Aboriginal students and their families, when Western education is measured by academic attainment and graduation data (Collins & Lea 1999; Guenther, Young, Boyle et al. 2005).
The template for learning provided to the younger generation in Western schools (mission, station-based or government) imposed the habits, attitudes and norms associated with classroom literacy practice. Classrooms remain dominated by non-Aboriginal teachers using standard Australian English to convey instructions (Simpson & Wigglesworth 2008). And despite the recent introduction of more collaborative and cooperative learning processes, Western schooling is in the main structured around one-to-one or dyadic interaction (Rogoff 2003, pp. 141–147). Students are one side of didactic adult–child question-and-answer routines, expected to ‘speak only to the teacher and only one at a time or in unison so they can act as one side of a dyad’ (Rogoff 2003, p. 147, also Heath 1982). Mainstream classroom practices thus make the responsibility for engaging students in learning the responsibility of the teacher (Christensen, Garvin and Sweet 1991). By contrast in Aboriginal Australia, responsibility for learning rests with the learner. As Harris notes, Aboriginal children rarely receive elaborate explicit instruction, learning through observation and social interaction instead (Harris 1990, p. 21). Yet, because of the influence of schools, here I argue that senior people are now expected to ‘teach’ like teaching is done in schools. This has brought a shift, with responsibility for learning now sitting with the teacher.

Michael, a non-Aboriginal linguist who has worked in Arandic schools, observes ‘It’s only in schools where knowledge has to be abstracted and taught to 30 [different] people’207, as if this summarises all that is culturally unique about Western schooling. But it’s not only about abstracting knowledge, but how this knowledge is taught and the structuring of the teaching process that impacts IEK. It is not simply that Western dyadic interactional styles are in contrast with Aboriginal communication styles and narrative traditions (Harris 1990; Walsh 1997; Kral 2007). More importantly, the dyadic interactional style has permeated Aboriginal learning processes. The reasons behind this are twofold.

The first point is that formal schooling has modified the expectations young people have of what ‘real’ learning looks like; that is, their template for learning is one informed by direct

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206 Aboriginal Teaching Assistants play a critical role in bridging language and cultural divides (Moses & Wigglesworth 2008, p. 152), but it is also true to say the main teaching program is designed, delivered and managed by non-Indigenous education professionals.

207 Interviewed 7 February 2012
instruction or teacher-directed interaction. Furthermore, the reason for learning has also been influenced by Western education paradigms. Within remote Aboriginal communities, formal education is now widely associated with the goal of waged employment (Lea 2008, p. 49, see also Kral and Falk 2004). Nina, a middle-aged Arrernte teacher, observes of young Arrernte people, ‘There’s a lot of Westernised teaching. They only thinking Westernised is very important, because they’ve got to see that piece of paper.’ In so saying, Nina articulates the common-sense view that Western education is associated with a qualification and the ability to get a job.

The second point is that demographic change has introduced dyadic social organisation common to Western schooling into IEK learning processes. As a consequence of their declining numbers, older people are expected to perform like professional educators and to have generic rather than specialist and idiosyncratic expertise as they assume responsibility for talking about cultural knowledge to broader groups of extended social and kin relations. Yet older people generally don’t, for example, know how to teach in large groups within dedicated and timed teaching slots, despite this being the temporal framing they’re now reduced to. As Wendy remarked:

One old person can’t teach 25 people anyway, it’s too much work. [But] this is what it is coming down to.

Words like ‘the course’ and ‘training’ have entered the vocabulary of older people to describe their teaching. During the camp to Sandy Creek described in Chapter Six, Dora talked about ‘training’ camps for young Arrernte women before the Women’s Law and Culture meeting the following year. In Tennant Creek, senior Warumungu women are also using the same kind of language, as Wendy explains:

. . . they’re calling it ‘the course’ so that’s what they call it. I don’t know if they’ve chosen the word ‘course’ because then they think it’s going to be more acceptable, if it makes it more palatable [to external agencies or non-Aboriginal people].

208 Currently in Australia, the Cape York Institute is championing direct instruction in selected Indigenous schools in Cape York in far north Queensland. The Cape York Partnership is an Indigenous organisation based in far north Queensland started by Indigenous man Noel Pearson. The Australian Government is also investigating the possibility of using this teaching method in Australian schools beyond the Cape and the Northern Territory government has decided this is the approach to be adopted in schools across the NT. As an approach to education, direct instruction has generated decades of debate about its efficacy and the greater or lesser importance of behaviourist versus constructivist approaches to models of learning (Luke 2014). Of interest for this thesis is the way a similar debate about the best ways to incorporate Indigenous learning styles seems to no longer have a place in education policy framing.

209 Interviewed 16 May 2012.
210 Interviewed 25 June 2012.
Older people also talk about ‘retiring’ from knowledge transmission work, as Wendy further observes:

*I’m doing a project with them this year where P wants to retire basically and she’s chosen six people that she wants to pass her knowledge on to.*

The social basis of Aboriginal knowledge is ecologically based; this mutual interdependency was interrupted by formal education as much as it was by serial dispossession. Fundamental to knowledge transmission and learning in the olden times was the cyclical nature of observation, imitation and practice tied together in a continuous relationship with knowledgeable kin. Young people learnt by looking at the landscape, paying close attention to its landforms, soils, plants, animals, water supply and fire history. They learnt how to use plants, read animal tracks and understand the significance of weather changes. As previously noted, this learning was iterative, with observation adding to practice adding to observation adding to practice and so on, to a lifetime of incorporated understanding, adjusting along the way to noteworthy transformations: a landslide, a flood, a war.

The decline of IEK is associated with serial breakdowns in transmission processes. Here I am noting that attending school each day contributed to this breakdown (Gilles, Thomas, Valdivia et al. 2013). As already outlined in Chapter Four, the school calendar dictates the time and the month that families can go out bush. The majority of young adults interviewed explained that they mainly go out bush in July or December. As a consequence, people’s ability to respond to weather, seasons and species production has reduced.

In response to the disruptions to season-based knowledge, ecological calendars have been developed in Central Australian schools. These calendars are viewed as a way of young people learning seasonal knowledge that they may otherwise not learn or experience in an embodied, organic way (Hoogenraad & Robertson 1997, p. 35). Well intentioned as they are, these calendars are nonetheless ‘simplified’ schematic representations, fitting Aboriginal ecological knowledge into a European model of seasonal knowledge across a 12-month calendar (Hoogenraad & Robertson 1997, p. 39). For IEK and youth, matching the fixed categories of the calendar, there is now a reduced seasonality to ecological knowledge learning, as young people have gone from learning across a multiple seasonal timeframe to now only learning in two short seasons. This reduction in knowledge associated with different seasons has also been observed.
in international studies (Zent 1992; Heckler 2009, p. 544). This seasonal reduction enforces the new 'intensive' learning approach.

**The question-and-answer learning method**

It is common for Aboriginal children in classrooms to be told 'If you don’t understand something, just ask.' Teachers explain that this phrase is one they constantly repeat. The phrase signifies the way formal schooling introduces a more abstract and co-dependent form of learning and knowledge-getting in which asking questions is encouraged to demonstrate interest and active learning. This is in contrast to the traditional styles of observation, listening and practice, where imitating is the demonstration of interest. Today, to overcome the knowledge gap between the generations, young people ask questions – or, anticipating that this might be shaming, hang back from participating in bush trips altogether, thus running the risk of being labelled by their kin as wastrels who show no interest in their country. Asking questions might be a shortcut way of gaining information quickly, as a way of catching up on missed practical experience, but it is also an invitation to be growled at.

On the other side of the equation, with presumptions shaped by their life experiences, older people expect young people to have had the historical/traditional iterative processes of learning and experience embedded in their memories, and do not automatically explain or elaborate on the assumption that any truncated demonstrations in the present moment are topping up existing knowledge the young people should already have activated. Accordingly, any gaps between older people’s expectations and younger people’s actual level of attainment may be explained by the generic diagnosis that young people today ‘don’t want to learn,’ only care for their peer groups, or the dismissal that an individual doesn’t have aptitude.

Nineteen-year-old Sally, a young mother with a new baby son, was more fortunate: the contrasting learning approaches and expectations could be merged. As a child and young adolescent, Sally went out bush ‘all the time’ with her ‘grandmother, cousins and aunties.’\(^{211}\) They went for ‘goanna or we’d go dig honeyants or witchetty grubs.’ She recalls:

> If they were doing something, they’d ask for help and they’d show you how to do it. Well, me, I’d ask questions too.\(^{212}\)

\(^{211}\) Interviewed 22 October 2012.

\(^{212}\) Interviewed 22 October 2012.
For Levi, with his harder family history, a more consciously direct approach has been forged.

Now he is proud of his work as a ranger with the Central Land Council. He tells me during site clearances\textsuperscript{213} that he has found some of the old men don’t mind ‘the stupid questions’:

\begin{quote}
I’m the type of person who doesn’t like sitting back and waiting for information. I basically go and stand next to that old fella and I ask him or nudge him, touch him and ask him ‘Can you tell me the story about this place?’\textsuperscript{214}
\end{quote}

But Levi is also conscious of how other young men risk shame:

\begin{quote}
Some young fellas don’t show any interest. The ones that do show interest, they show a lot of interest, it’s a bit hard. It’s like they are ashamed to ask or they’re too afraid to ask, ‘cause they feel like they are going to shame themselves out. Make themselves shame. That’s the worst fear for a young fella – for a young fella to go up and ask an old fella a silly question. Some are pretty good, they don’t mind the stupid question you ask\textsuperscript{215}.
\end{quote}

This is where having close family members around (rather than in gaol, caught up in drinking cycles, or in hospital) can make all the difference. The trepidation is reduced. This is illustrated by Emma, a 22-year-old mother of two young daughters who lives in Alice Springs. She learnt from her grandmother by watching and asking questions:

\begin{quote}
Well, she used to just slowly show me and I’d just watch and learn, and then she’d ask if I wanted to have a go. And then if I’m doing it wrong, she’ll tell me what I’m doing wrong. And then if we ever had any questions about anything, she’d just talk about it. I’d ask her a question, like, bush names of old family members. When I had my first daughter, I was asking for bush names [that were right for my daughter’s skin group]. My two daughters, they’ve both got bush names. My grandmothers, they’d be proud if we asked them something and they’d feel like it’s a good thing, they’ll feel like they’ve got something to do. And they love talking about their Dreaming and culture, it’s something they’re interested in.\textsuperscript{216}
\end{quote}

Cathy tells me that rather than asking questions of older family members it would be older people ‘testing’ her, not as a form of direct questioning, but more as a call to pay attention. She learnt by:

\begin{quote}
Just always watching and being quizzed by – like being asked questions by the nannas and older people. [They would be] . . . showing me things, ‘See, it’s like this’, and explaining things. Just in conversation. It was a learning experience, but it wasn’t really like going to
\end{quote}

\begin{footnotesize}
\begin{enumerate}
\item It is a legal requirement that traditional owners be consulted if a proposal for work or development is forecasted to take place on or near sacred sites. If traditional owners are satisfied that there is no substantive risk of damage to, or interference with, a sacred site, a site clearance will be issued for work to go ahead.
\item Interviewed 14 March 2012.
\item Interviewed 14 March 2012.
\item Interviewed 22 October 2012.
\end{enumerate}
\end{footnotesize}
school. Just listening and watching when we were doing something.\textsuperscript{217}

Some older people have realised that they have to \textit{deliberately teach} and provide explicit \textit{instruction}. As Gwen explains in reference to Dora, who initiated the camp at Sandy Creek to teach traditional dance:

\textit{Older people take it for granted that knowledge will somehow be passed on to the next generation. That young people are going to know it all for some reason. Not realising that they've got to actually pass it on. I think that's happened in the past. [Dora] is always making sure she's teaching cultural knowledge [especially about traditional dances]. It just struck her one time that unless she actually deliberately taught it, it wasn't going to happen. That's how she came to a realisation that it just didn't happen within the general course of anybody's life now because we're living a different lifestyle and if she didn't actually teach it then it wasn't going to get taught.}\textsuperscript{218}

\section*{Where change meets existing practice}

Internationally, research by Christancho and Vining (2009) likewise documents the change from experiential to conceptual learning among Indigenous groups in Colombia and Guatemala in South America. They point to Western education as transforming experiential learning, as well as encouraging IEK to be taught within the school system. This said, it is not exactly the case that direct questioning was foreign to Indigenous pedagogies before the advent of formal education. Previous research suggests that adults have always used direct verbal instruction to teach abstract concepts of the highly complex Aboriginal kinship system (Bavin 1991). Rather, what has changed is the way young adults are now asking questions of adults to understand features of IEK that has transitioned out of daily embedded practice and into more abstract and conceptual knowledge, augmented by scientific writing collaborations with Indigenous Knowledge holders to document and further codify IEK.

Despite the increasing normalisation of asking questions, there still remain associations of shame around such a direct approach. For their part, young people are reluctant to have queries reveal their lack of awareness, but it is a strategy that some have to employ in the right context. Questions are sometimes received well, but at other times can expose or demonstrate ignorance. As 22-year-old Olivia explains:

\textsuperscript{217} Interviewed 22 October 2012.
\textsuperscript{218} Interviewed 28 June 2012.
I get shame to ask my family, they expect you to know already. But it’s okay to ask questions here [at the Akeyulerre Centre], I don’t feel shame to ask old ladies questions because it’s part of my work [working with plants and bush medicines].

In some cases the older generation have adapted to this enquiry-based approach by drawing from a repertoire of traditional communication tools available to them, especially by answering with a story. In Central Australia, ‘story’ pertains to the Dreaming and to country and creation (Green 2014, p. 43). As senior Warumungu man Lincoln told me, ‘If young people ask “why”, I always tell them a story’. He goes on to say:

... when I go out bush with young people, I draw it in the ground and I tell that story about country. I can tell that story, line it up, put it on the ground and say this country and what songs are here.

Stories in Indigenous cultures worldwide are central to instruction and learning, being ‘used to foster attention, imagination, metaphoric thinking, and flexibility and fluency of thought in understanding the natural and moral world’ (Rogoff 2003, p. 293; see also Cajete 1994, Kawagley 1990).

Contemporary learning is still based on story, demonstration and explanation: ‘You tell a story, give an explanation at back of the story and finish with a further explanation’. One adds detail and depth to the story through explanation and the detail and depth will change with the context. As middle-aged Aboriginal assistant teacher Patty explains about learning a dance:

We give lots of story and then they have a go. For us, story is important – they [young people] listen to the story. Then they start having a go. Doing like the dance and action.

Rose is Warumungu and in her early thirties. She makes the additional point that questions are a necessary learning device due to language differences between the generations. Older people communicate better in their first language, which may not be English, yet for some young people they learn better in English if they don’t have strong language skills. Rose reflects on her own learning experience and the role of language in learning:

Knowing the language is really important when you’re transferring knowledge, because some people like me, who has very little language, it is really hard trying to get to know what something is or to know the process. I always get JJ [a peer, to explain] because other
older people, they talk in language to me and they get a bit frustrated when I ask them more questions [laughing], so I have to get someone like JJ [to translate]. Like Old Sylvia when she talks and tries to pass on information, she's really good because she can speak the English very well and is very eloquent at doing that but others don't have really strong English.223

Still, many of the young adults featured in this ethnography will say that the older generation simply expect them to know. Older people tell them, with intended criticism, ‘You should know: we tell you all the time.’ This situation is illustrated by young Arrernte woman Olivia:

. . . you just get shame to ask about something, ‘cause you’re expected to know when you’re older. And that’s what keeps a lot of young people back. They don’t want to ask. Not as a kid though ‘cause it’s quite safe to ask those questions. But when I’m back home [Santa Teresa], I get shamed to ask my family. Sometimes they say, ‘Oh, you’re supposed to know this by now. We tell you all the time.’ We tell you all the time.’ It’s just hard to take that step to ask them ‘cause most of the time, especially with dad, you get in trouble if you don’t listen the first time. So you pretend that you know. And it’s still like that. That’s why when they’re having that conversation, you listen more to try and get it before you do ask them – what does that mean or why is this like that? You try and figure it out first.224

Older people can get ‘grumpy’ if you don’t meet their expectation that you should know after being shown once. Deborah Bird Rose alludes to this threat in her interaction with Jessie Wirrpa, who said to her, ‘I’ll show you once. After that you’ll have to do it yourself’ (Bird Rose 2013, p. 9). From the perspective of the older generation, learning is the responsibility of the learner. From the perspective of the younger generation, the teacher is responsible. When I interviewed Henry, a non-Indigenous linguist, he recalled his observations of learning between the generations on remote communities in the 1960s:

Older men and the older women would at times give them [younger ones] a bit of instruction or a comment, but they would not go through a whole rigmarole of teaching in class in a European style. It was not the way they did things. They would expect the kids then to learn from what they saw them doing. They’d expect them to do things and be more independent.

Learning alongside the older generation

Previous research into cultural transmission has documented three interdependent learning pathways or states: children and youth can learn from parents (vertical transmission); from

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223 Interviewed 2 July 2012.
224 Interviewed 29 August 2012.
peer groups (horizontal transmission); and from older generations (oblique) (Reyes-Garcia et al. 2009, p. 274, see also Cavalli-Sforza & Feldman 1981; Hewlett & Cavalli-Sforza 1986). My research shows two things: the changing patterns of knowledge distribution amongst a generation influences changes to the modes and rates of information transmission through horizontal, vertical and oblique pathways. As I will go on to argue, a reduced IEK knowledge base in the older generation means that there is less transmission happening through vertical processes. Related to this is that the patterns of knowledge within society are also affected – a collapsing or flattening of vertical transmission processes has taken place in Central Australia.225 The result is that knowledge is levelling across the child–parent divide, becoming more similar between the generations. As much as young adults might point to older relatives as important informants, they will also say they are learning ‘alongside’ their parents or older family members. As Emma told of when her two young daughters (aged two and four) were smoked (Chapter Five), ‘I want to learn, and then while I’m learning, my daughters can learn on the side.’

Notably, Emma took photos and asked questions when her second daughter was smoked, documenting the smoking ritual to have records of the events as a future reference or learning resource for her own children.

My first daughter, she got sung from my grandmother to make her legs strong and she got smoked . . . and then with my second daughter, my auntie did it [after my grandmother passed away]. And my auntie is still young and I want to learn off her. I took photos, with my second daughter, when she was getting smoked, because I didn’t get a chance with my first daughter, because I didn’t think about it, and [the second time] I was taking photos of the different plants. I was watching and asking her [my auntie] questions and just watching how she was doing it, taking photos of everything. And my mum was learning too on the side. 227

Emma’s story is an example of a flattening of vertical transmission where young women and their mothers learn together side by side. This simultaneous compression and flattening of knowledge between the generations is symptomatic of Aboriginal society having being battered over many generations; particularly the younger ages at which children might become parents and young adults might become grandparents.

225 See also vertical and horizontal changes in socialisation patterns described by Robinson 1997, p. 325.
226 Interviewed 22 October 2012.
227 Interviewed 22 October 2012.
Previously I discussed the issue of young parents and grandparents. Great-grandparents are stepping into the breach created by absent grandparents and/or absent parents. Young people and children increasingly have parenting roles forced on them where they are responsible for younger siblings (see also Cass, Brennan, Thomson et al. 2011). Young people are also routinely placed in charge of younger family members. As often as not, young adults are becoming the responsible figure in the lives of those only a few years younger than themselves. Rose in Tennant Creek observes:

*I think a lot of young people, they are a little bit older, but not like adults, and they've actually been placed in charge of younger children, so that they're actually growing them up. It's not the older adult-type generation being the parents. I think that's becoming really quite dangerous for our society. We have a number of children that have been grown up by people who aren't really adults, so they can't make those bigger decisions like adults can. Children are being taught off people who are just making it up themselves as they're going along, they're not actually learning anything that's Aboriginal, and they're only just learning how to survive in an environment which may not be the best environment, like the crowding, not much money going around, or not much food.*

‘**Older people are only catching up now**’

Jamie was part of the Warumungu song project facilitated by Barkly Arts described in the previous chapter. Jamie can't understand why the middle-aged generation (those in their fifties) didn't learn when they were younger and had the advantage of greater numbers of senior people still alive:

*They should have more knowledge than me. But a lot of them don't – it's hard to say – 'cause a lot of them mob that are older than me now, [but] they have limited information and knowledge and I sort of can't understand it 'cause when they were growing up – before I was born [they would have] had about 30 old men, 30 old ladies alive and I just can't see why they didn't learn anything and they're sort of catching up now when young blokes like me have probably got more – I don't like to say it, but more knowledge than the older ones in that older [middle-aged] age group.*

He goes on to point out the difficulties of this middle-aged generation ‘still learning themselves’:

*I've noticed that a few family members of mine – when they were my age – they weren't doing it [learning]. But I've found that today, they're in their fifties and they're sort of coming back to find out more about their culture and their country. The younger grandparents*

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228 Field notes, 2 July 2012.
229 Interviewed 2 July 2012.
230 Interviewed 3 July 2012.
may be still learning themselves. The older ones – most older ones got it [knowledge] already – but the young grandparents are still learning. They probably find it a bit uncomfortable to teach their kids, yeah, cause they’re still learning themselves. 231

So why are young people learning alongside middle-aged people and in the midst of older people ‘catching up’ with their learning? People I interviewed constantly referenced alcohol as being a major factor in the breakdown of transmission processes. Alcohol and excessive drinking are among the many factors that contribute to changed learning processes and Indigenous Knowledge fragmentation. It has a major impact, one rarely identified as a societal cost in the governmental quest to individualise responsibility. As senior Warumungu woman Jenny noted about alcohol and grandparents:

. . . because of that alcohol, a sad thing to talk about alcohol, makes them be silly in front of the grandchildren. But some behave [are sensible], some grandmothers, like my aunty-mother. She drinks and, you know, she’s a great-grandmother and she’s not that old to be a great-grandmother. 232

Middle-aged woman Rose notes:

I think that the alcohol has taken two generations away . . . just by removing them from society. From about thirties to about 55, those age groups. 233

A vulnerability of young people arises from ‘living-but-absent’ parents. Beyond alcohol, a range of complex and interrelated factors contribute to parental absence and neglect (Robinson 2012). However, the situation of parents struggling to cope is a reflection of broader social issues: disadvantage across multiple spheres that is writ large in the life of children and their families. 234 As shown in Chapter Four, where there is instability and a lack of integrity in family life, young people seek out extended family to provide support. The upshot of this precarity is that the unpredictability of living arrangements can put a stop to young people going out bush altogether. Wendy, who helped plan and support IEK trips in the Tennant Creek area, notes:

Some young people live with extended family, that’s the favour. So if they were to go and leave their stuff, leave their belongings [to go on an IEK trip], their stuff might not be there when they get back. They could potentially come home to nothing because they don’t have control of their environment at all and if you’re more senior or you’re that middle-aged

231 Interviewed 3 July 2012.
232 Interviewed 7 July 2012.
233 Interviewed 2 July 2012.
234 In the NT there is an unprecedented increase in the rates of Aboriginal children being removed by the NT Government and placed in state provided care (Gibson 2013, 2015).
group and you’ve got a dysfunctional family, you’ve got more control, but at that younger age, if you’re in a dysfunctional family, you’ve got no control.

Single parenting or the death of a parent also leaves young people highly vulnerable (Robinson 2012, pp. 6–7). Premature deaths of men and women aged in their forties means that children are growing up with genealogical gaps (Brooks 2011, p. 193). And, as a non-Aboriginal school-teacher pointed out to me, it is not only men who are dying young, but women too:

> We got involved with the repatriation of archival material from the National Museum of Australia. We were looking through some video footage and one of the Aboriginal assistant teachers saw herself on the video as a girl and said, ‘All these people are dead’, and she’s in her forties.  

I interviewed an Aboriginal coach of an Aboriginal football team in Alice Springs. The majority of the young men on the team are Arrernte. Pointing to a team photo, he explained to me that ‘half the team have got dead fathers’. The reality of immersion into non-Aboriginal social conditions is that people’s health has suffered significantly. Young people are sympathetic and aware of the poor health of senior people: ‘Old ladies too cripple to teach, they teaching songs, but not dance. Cripple and sugar problems’. For older people, poor health requires extra resourcing. Wendy notes:

> There are older knowledgeable people, without them nothing would happen, but they need to be comfortable. Health is a factor. I’m about to go and buy fold-up chairs and camp stretchers.

There are increasing demands on fewer and sicker old people. Concurrently, the population demographics indicate there are many more young people to teach. Lenny, a non-Aboriginal land management officer with the Central Land Council, was involved in an IEK trip. He commented that:

> . . . one of the very elderly ladies had liver disease and we had a point there where she moaned and berated this younger group who were involved in this trip, and she said, ‘I’ve been wanting to pass this knowledge on for years and years and years and I’ve always been unable to . . . now you come to me while I’m dying and you want to know now’. She had tears in her eyes when she was saying this. She died not very long after that too.

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235 Interviewed 19 June 2012.
236 Field notes, September 14 2012.
237 Field notes, 31 July 2012
238 Interviewed 25 June 2012.
239 Interviewed 8 July 2012.
So while young people sometimes feel that older people might not want to teach, for the older generation, multiple disappointments compounded over time can diminish their enthusiasm to teach. This dilemma is reflected in statements by 24-year-old Levi:

*Some old people aren’t really interested because they think of so many young fellas that they’ve tried to [teach] before and they’ve never showed any interest to it, especially their own grandchildren. They’re the ones that actually make it more difficult for other people that actually want to learn. Once they show them old fellas their lack of interest, it’s hard to get them [older people] motivated again for it. Young fellas need to sit down more with family and show interest. But they don’t, it starts like that, that’s when old fellas basically don’t want to share anything.*

Senior Arrernte woman Kathleen Kemarre Wallace describes this in her book *Listen Deeply Let the Stories In*:

*These days our elders will sometimes finish up without sharing all of their knowledge with us younger ones. Sometimes we miss out on being taught by our old people because our families have been moved apart, but many Aboriginal people still learn and respect the ways of our apmere [country], its law and business.* (Wallace & Lovell 2009, p. 2)

I have also observed how older people can vent their frustrations in ways that are hurtful to younger people. For example, on one IEK trip a grandmother said to her 30-plus granddaughter, who had instigated the trip (and who had also lived in cities at different times):

. . . you don’t want to learn these songs; you just want to be a whitefella. You are going to go off and be a whitefella like you always do.

This is the dilemma of IEK in contemporary times. Young adults have to fit IEK in around their modern lives and this enforced ‘dipping in and out’ of an IEK space is the antithesis to how senior people view experientially derived knowledge and its role and place in the world. This leads to the kind of resentment described by Byron, a non-Aboriginal youth worker who took part in the same IEK trip as the grandmother and granddaughter:

*They feel resentful that young people just want to learn like the little fun parts or do it once in a while for a hobby. Kind of say ‘hello’ and just want to know about it, but not in a really serious way, and they feel it should be treated so much more seriously.*

Both the young and old are highly vulnerable in the IEK learning space. There is a fine line that

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240 Interviewed 14 March 2012.
241 Field notes, 28 June 2012.
242 Interviewed 28 June 2012.
the young and old walk, both tolerating certain kinds of 'bad' behaviour from the other in the midst of occasionally venting frustrations. For instance, the older generation often ignores the attitudes of younger women as they don't want to risk alienating them, as described by Wendy on one IEK trip:

*This one old lady is rolling up this other old woman's swag while three young women [16, 17, 19 year olds] are sitting there brushing their hair. The old ladies just ignored [the lack of help] . . . but you know they'd still tell me, 'Oh see that one there, she's a really good basketball player' and talk them up. They're just holding onto those girls by such a little thread, I think a lot of those older women they do live in fear that they're going to lose them – there's so many paths that those girls could be going on and my one week [IEK] trip is not a huge thing in their day-to-day life and so I think those older women have a lot riding on their relationship with those girls too and they don't want to push them too far.*

Young people are also part of a pressurised system. They understand that they need to prove themselves to senior people and not just turn up, say hello and expect information. Jamie, a young Warumungu man, describes how he goes about earning the trust of older people so that they take him and his learning intentions seriously. The process is built on showing respect, as he explains:

*Young people have got to go to old people. They've got to go up to them. But you've got to have respect. You just can't go up to the older person and ask them something. I just can't go to my old grandmother now – my grandmother's sister – and just sit down and have a cup of tea and start asking her questions. I've got to visit her regularly – she'll wake up and understand why I'm going there all the time and she'll start telling me stories about her sister, my grandmother, and other stories that's relevant to me.*

This is the context within which organisations resourcing bush trips, especially project-based trips, provide opportunities for older women and men to reaffirm and connect with their own knowledge, and with each other, as much as with young people. The wonder of it is that within the pressurised learning system – with its multiple frustrations and compromises – how resourceful people are still managing to be, in crafting opportunities for knowledge learning, including through taking advantage of the cultural displays so often manufactured in regional Australia to enact a harmonious story of inclusive multicultural societies.

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243 Field notes, 25 June 2012.
244 Interviewed 25 June 2012.
245 Interviewed 3 July 2012.
Performance and practice: tensions and limitations

In Alice Springs and throughout Central Australia, performative dancing at the opening of new buildings, art exhibitions or conferences is a common occurrence. In addition to providing resources (travel and appearance fees), these occasions are regarded as a ‘good time to teach young people up’.246

Finding available time for regular rehearsal or practice is a challenge, especially in bringing together old and young. Nina is in her late forties and works at Akeyulerre Healing Centre in the Bush Schools Program. The program works with Arrernte families to connect children and young adults back to Arrernte culture and country. Learning is done on country with senior family members as the main teachers. Nina recounts a story about seeing a group of her younger family members performing in public. The shame they felt was not to do with performing in front of strangers, but because they did not know the actions or the words of the songs properly. Nina adds that it takes about ‘four years to learn just the one song properly’.247

I went on that trip with these young ladies. Those young women were told [by older women] to just stand up and start doing something. Just to dance and start singing to their [old women’s] songs, but they didn’t know anything about the song or the dancing. They haven’t been taught to do all those steps. It’s like dancing the hip hop or doing the line dance, you have to dance to the tune and to the lyrics. You really got to understand the lyrics; it can be a really meaningful thing for them, so they can take it right into their heart. I took them there and they said, ‘Oh we can’t do this’. They wasn’t feeling shame, they was just feeling that they didn’t learn enough, they haven’t been taught. It’s like learning to read and write English, you know, you’ve got to learn to do it.

Similarly, young men are subject to ‘demand performance’ at launches or openings, without prior or consistent practice. Steven, from Tennant Creek, was widely referred to me as someone I should interview. He tells me he was ‘pretty lucky because I grew up with my dad out bush’ and ‘my dad was a strong person in my life’.248 When asked about his experience and that of other young men performing in public, he spoke of the under-preparation:

. . . because we don’t practice much. You know, I reckon we should sing, once a month or even every week. You know, once a week go out [bush] and do it. We don’t do it often much. They feel shame [young men] because they don’t know how to do that action stuff

246 Field notes, 16 May 2012.
247 Interviewed 16 May 2012.
248 Interviewed 4 July 2012.
and they go out there and make a fool out of their self. You know, look really, really stupid how they're dancing.

Young people have seen how it's done and know the right way, but they haven't had the ongoing practice to feel competent in what they are doing. The work of anthropologist Franca Tamisari shows the intricacy of learning dance as a form of sociality, which requires 'a modality of co-presence and co-presencing, an encounter at a level of intensity which opens the way to an ever deepening involvement with others' (2000, p. 274). Without such repeated encounters and 'deepening,' young people are saying, when they have a go they feel clumsy and foolish under the spotlight. This exacerbates the self-consciousness of a cohort that is already acutely self-conscious, adding to the shame which reduces the confidence to even try, a reluctance that can be compounded when young people are then berated for their lack of interest in learning the old ways and their preoccupation with new technologies such as mobile phones. As Patty, a woman in her early forties, reflects:

Young people don't come to hunting much now. Because they've got their mobiles now. They busy online and sending text now. In my time in the 1970s, it was really different. We didn't have mobile, internet, computers. 249

While new media is playing a role in cultural reproduction and practice of IEK, concomitantly young people's obsessive use of social media is also criticised. As Gwen tells me, ‘young people are living their lives “on the screen” ’. 250

Using technology as part of practice
The term ‘iGeneration’ is associated with those young people born in the 1990s who grew up with the internet and Apple products such as the iPod and the iPad (hence the lower case ‘i’ prefix followed by the capital ‘G’) (Rosen 2007; Rosen, Carrier & Cheever 2010; Whittaker 2010). I borrow this term in relationship to the Aboriginal youth in this study who were also born in the 1990s to describe what I characterise as the Indigenous youth iGeneration. Young adults increasingly live their lives indoors, compared to that of their parents and grandparents. This generation like the ‘now’ and live ‘in the moment’ and respond to immediacy and spontaneity, a distractible orientation that Tess Lea has argued is additionally encouraged in

249 Interviewed 14 June 2012.
250 Interviewed 28 June 2012.
well-intentioned if ethnocentric early childhood pedagogies in Aboriginal classrooms (Lea 2015). The focus group which provided feedback on my trial survey preferred doing the survey on an iPad and advised that ‘paper makes it look too hard’. The survey on the iPad had a progress bar so that people could instantly see the questions answered and the remaining questions to be completed. Likewise, in her work with Ngaanyatjarra youth (located in the Western Desert to the west of Alice Springs), Inge Kral notes:

_The immediacy of the digital medium matches their creative energy by allowing multiple images to be shot and viewed, then surreptitiously deleted or downloaded for instant replay and communal repeat viewings._ (Kral 2007, p. 246)

Aboriginal youth are highly engaged with technology and spend their time living on the screen, documenting individual and family events on various social media. A 19-year-old woman posted a photograph of her grandmother on Facebook not long after the funeral (see discussion on how photos are now part of contemporary Yolngu grieving practices, Deger 2008, pp. 66–87). This attitude to displaying images of the deceased is changing, as Dianne, a linguist with long relationships in Central Australia observes:

… and the other thing too is the attitude to photos. So I’ve got a whole lot of old magazines from the 1970s – I used to have them in my house for when people came, I had books and magazines and stuff and people loved looking at the photos and all that sort of thing. But as I collected them up, lots of faces had been blackened out or whitened out or et cetera et cetera because somebody was in it it was a relative of theirs who had died. Whereas now, people want photos all the time and I’ve been into houses people have taken me in to show me their photos of their deceased relations that are sort of up there in pride of place, including a grandmother showing me a photo of her granddaughter who committed suicide just like a year or two years ago. Now that would have been absolutely totally taboo 30 years ago.

I interviewed middle-aged parents who complained of young people not wanting to go out hunting because there was ‘no Facebook out bush’. The flip side to this, the positives of being exposed to new technologies and different genres and forms of communication, is that young people have an expanded inventory of tools and skills to record and document IEK. The use and rapid uptake of technology also means that the children of adolescent parents are being exposed to social media, the internet and touch-screen technology on a daily basis. I have

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251 Field notes, 28 June 2012.
252 Field notes, 20 October 2013.
253 Interview 14 June 2012.
seen toddlers (infants 12 months and older) confidently manipulate icons on mobile phones, iPads and tablets, noting the ease with which they touch and drag, re-start or switch between games.

As I showed earlier, digital technologies are being used as a teaching tool and a new mnemonic device for acquiring conceptual knowledge. Technology also has a role in IEK practice (see Photos 52 and 53, page 183) The use of different multi-media devices introduces knowledge through a medium both familiar and of interest to young people. They are more likely to be involved when they help record and get the ‘taste for things’, ‘getting a little snippet’.254 Wendy, in land management at Tennant Creek, notes how young people use the content of a CD to assist with learning on demand:

... so they understand the content of the songs, but they couldn't sing it themselves. They want to be able to learn how to sing those songs, they're gonna go home with the CD and practice. Having that CD and access to the songs affirms their cultural interest.

Young people who have an iPad or digital camera or video in hand are perceived to be part of contemporary IEK practice, with a role of documenting IEK activities. Technology provides a shield behind which youth can observe while still helping and participating. Observing through the viewfinder reduces the chances of being shamed or growled by senior people. Another partially obscured tactic comes with making videos. When young people sit and review the video footage during the editing stages, they repeatedly observe the activity and the nuances of its practice again (see also Kral 2007, p. 254).

In emphasising the tactics young people deploy to overcome the obstacles placed in front of their learning, I do not mean to underplay the self-sabotaging that also takes place. Take the issue of jealousing (introduced in Chapter Four) and its impact on practice and performance. Jealousy between boyfriends and girlfriends can stop both young men and young women from spending time out bush with older people practising IEK derived skills or from performing publicly (see also Tonkinson 2011, pp. 231–232, Senior & Chenhall 2012; Burbank 1988, p. 90). Even public performance can create feelings of jealousy. Gavin explains that the reluctance of young men to perform public adaptations of male song and dance in front of others can be to appease jealous girlfriends. On one particular occasion it was a performance to mark the

254 Field notes, 28 June 2012.
opening of a new health clinic. He told me: ‘Wives bossing young men . . . [they say], “If I see you dancing, I will hit you with a rock” ’.255

A common theme from the interviews was that some husbands did not want their wives going out bush and some wives did not want to leave their husbands for fear of what they might get up to. With this thought uppermost, Netta from Ntaria told me that young women ‘Want to learn, but then again, they’ve probably got too much on their mind’.256 When I ask her ‘What’s on their minds?’ she described the sexual politics in play: ‘

Some girls they really want to be with their man [and not go out bush], they just want to watch them, they might cheat behind their back [flirt or have a sexual relationship with someone else when they are away].’257

Young people’s critique of older generations

The voices of young people and their accounts and experiences of learning are fundamentally important to understanding cultural transmission – both now and into the future. This youth voice has been missing from discourses about intergenerational knowledge transmission. I have argued that young and old Aboriginal people who want to learn or pass on IEK face many challenges, and the rapid adaptations, tactics and adjustments that have been put in play to help overcome some of them. Often it is young people who are criticised for their interest or aptitude. To conclude this chapter, here I report on alternative perspectives.

‘Old people slave us’

I went on one bush trip organised by the MacDonnell Shire. The trip involved a youth worker and eight Arrernte women (equally divided between young and old). As I have noted, in unpredictable desert environments, and with reduced access to country brought about by the carving up of the Indigenous estate, Aboriginal people have to use opportunistic hunting strategies. The rare sight of the tracks of atyunpe / perentie (Varanus giganteus)258 triggered an opportunity to hunt and, with it, a practice-based learning moment also arose.

After a successful kill, the young women helped prepare the goanna for cooking. They collected

255 Interviewed 19 June 2012.
256 Interviewed 24 April 2012.
257 Interviewed 24 April 2012.
258 Atyunpe is a large goanna that is a favourite animal food in Central Australia.
wood, got the fire going and generally followed directions for getting this and doing that. Everything appeared to be going well, until four girls silently and unanimously walked back to the troopie and climbed in the back to just sit. Some time passed before the old ladies told me to ‘Tell those sulky girls to get out of the car’. When I asked the girls what was wrong they complained, ‘These old ladies are slaving us’. This is a common complaint that youth make about the older generation, one that I have heard many times while conducting fieldwork: They slave us.

Part of the tension is the difference in youth perceptions between ‘helping’ and ‘being slaved’. Notions of autonomy come into play here (cf. Myers 1991). Young people continue to value ‘equality or personal autonomy, such that no one is prepared to be told by others what to do’ (Myers 1991, p. 70). ‘Helping’ is where young people choose to do ‘the work’ of IEK. Being directed to work or being ‘slaved’ is the opposite; when young people are told what to do and tasked with duties, removing personal choice.

Where there’s a cohort of young people and activities are carried out collaboratively with physical input from older generations, I have noted that young people tend to have a sense of equality and are happier. Rose, a Warumungu person in her early thirties, explains her experience of going out bush with young people:

\[\ldots \text{they know I’m not sitting there on the ground saying, ‘Get me this, get me that’, I’m actually doing it [in action] and then they come up and help me do it.}\]

But while it may feel exploitative, it is by working or ‘helping’ that one is initially earning people’s respect and trust. An older person will tell you the best place to position a fire in terms of wind direction or shifting shade. They will tell you what type of wood to get, so as to avoid wood that sparks or burns quickly to ash and to choose wood that burns long and slow to make good charcoal. Their labour includes instruction; it is the receiver’s job to then physically conduct the task in the process of receiving knowledge.

Young Aboriginal people and those helping whites employed in organisations can both experience being ‘slaved’. Gemma, a long-term resident of Central Australia who works in youth development services recalls:

259 Field notes, 25 February 2012.
260 Interviewed 2 July 2012.
. . . when I was new – and even now, but particularly when I was new and I was young – people would order me around constantly, and they still do but I have other ways of dealing with that now. But it was so much about learning – do this, do that – you know, it’s not a particularly polite language, it’s very blunt – do it, do it now, do this and then when you’ve done that, do this and do that and come here and go there and that’s what it’s like. It’s teaching, definitely.261

However, young people have got other ideas. As Steven tells me:

So it’s not like in the old days where you can just tell young people what to do. Young people are more stubborn, they’ve got a lot more things to do than sitting around the campfire where [older] people can order them around.262

In saying ‘more things to do’, Steven means that young people have more choices; that what old people value in terms of ‘culture’ has more competition, including from technologies (see also Burbank 1988, p. 37).

Tennant Creek-based Ricky was involved in the Warumungu song project described in Chapter Six. He felt that practice and cultural reproduction is carried out in relationship to an event external to private family based processes. He told me (underlining indicates my emphasis):

You don’t see people going forward to say, ‘Right, let’s have a dance group’, it’s either someone’s visiting or an event’s happening, it’s never organised for a practice or to record anything for ourselves, it’s always recorded and documented when some event takes place.263

‘The world is changing. We’ve got to stop living in the past’

Nineteen-year-old Cathy is from a family of Western Arrernte language speakers who live on West Camp. She lives in a suburb of Alice Springs and comfortably mixes urban, town camp and remote life into a kaleidoscope of experiences between which she seamlessly transitions.

She tells me:

I’m just really happy that cultural stuff is being documented. It’s good. It’s really good. But I think times are just changing and we’ve just got to find different ways, we’ve just got to find it. The world is changing. We’ve got to stop living in the past.264

As I have shown, the modified ways of teaching and learning are adaptations to forces in a neo-colonial society that frames Indigenous people’s lives. Amid the strong continuities of

261 Interviewed 12 November 2011.
262 Interviewed 4 July 2012.
263 Interviewed 2 July 2012.
264 Interviewed 22 October 2012.
observation, instruction and practice, modifications to transmission processes are a sign of the resilience and determination of Aboriginal people to keep IEK going despite powerful forces working against it.

However, because the tactics people are using may be indirect and not often articulated within official IEK frameworks, people sometimes do not see how many adaptations have already been made and the strength of their own determination. Rather, they rehearse the common, more despondent, discourse of threat and the need for change. Steven's view, from the perspective of Tennant Creek, is worth quoting at length, for its inversion of the usual directive that it is young people who have to shape up:

I reckon old people need to change. I've worked with the traditional dancing with the Warumungu dance groups and working with old people was very, very hard because they think like old ways of doing things, and you know they expect things to be like before. We're living in a new world and it's so hard to go out there and just perform, to put on a show. And for dancing, you've got to go through all these white-man rules – what you can do, how you're going to put on the show – and then you've got your black fellow rule that you can't break. So to bend that [tradition] is very hard. But I would say our old people, they have to accept that we living in a new world. I don't know if you can change this one, but it would be good if we could meet halfway with them old people, because that barrier thing, we live in this new way to their old. Old people can't accept living in the new way. It's killing our culture. Because they so strict on things that when they're gone, they're taking a lot of things with them . . . I sit down and listen to them first, [but they have] got to stop this ordering around and stuff like that. Work together, sit down. We live in a new world . . . you’ve got to work together and you’ve got to listen to the young ones because you be stubborn you’ll lose them . . . Meet us halfway, do something contemporary . . . then throw in cultural dancing and storytelling.265

Senior people are viewed as lacking flexibility, yet for older people it's about doing things the right away as laid out by their interpretation of the Altyerre or Jukurrpa (Dreaming) and the extension of their own life experience.

Drawing on her experience of culturally derived land management, Wendy comments:

. . . if it's a contemporary land management activity, you can make do, but when it's cultural things like [singing songs for country], you can't just make do, you need to have certain people, it's not flexible, you don't have that level of flexibility that you have with other work that you do.266

265 Interviewed 4 July 2012.
266 Interviewed 25 June 2012.
It is easy to see how a discourse of absence and diminishment prevails over a narrative of strength and resilience. Consider how, within this seemingly inflexible system, older people are now being asked to make the hardest of culturally significant decisions. One example from Tennant Creek is the sad realisation, formed collectively after serial discussion and negotiation, that a cruel cull was needed: effectively, ‘Which Dreaming to keep and which Dreaming to let go’. These decisions are dependent on complex socio-political factors, such as who is still alive and the available numbers of people who have rights and responsibilities associated with particular Dreamings.

The discussion around what Dreaming to keep or let go was part of a women’s song cycle project in Tennant Creek supported by the Central Land Council. Wendy was the project manager of this women’s song project. The pressure on individual senior women to decide which songlines to focus upon naturally enough weighed heavily on them. Wendy recounts a meeting about the Dreamings at which:

. . . there was a lack of confidence that they [senior women] could make those decisions themselves, like AB who’s 80-something, got up at one point and she said, ‘We’ve got to ask the old people about this, and we’ve got to ask them if this is the right way’ . . . LM [a middle-aged woman] got up and she said to AB, ‘You are the old people, all the old people they’re dead, you are the old people’ and then the tears started.

With the poignant reminder of loved ones who have passed away, attendees also deeply felt the loss of senior knowledge holders; they mourned all that has slipped away, and cried for the deeply profound responsibilities about culture that now rests on their lonely shoulders. Senior Arrernte woman Kathleen Kemarre Wallace explained the emotion she felt when her grandfather, Atyelpe, died in 1984:

*Many people were very, very sad. The elders were very sad. They felt his death symbolised the end of our knowledge and our cultural practices. The changes to our culture and our way of life had been happening so fast and Atyelpe was one of the last who represented the old ways.* (Wallace & Lovell 2009, p. 158)

This chapter examined the personal interactions that underlie intergenerational transmission and acquisition of IEK: personal interactions being the crux of IEK learning. Within the profoundly challenging context of contemporary IEK, I have emphasised the resilience of learning
Resilient and radically changed learning processes as well the development of a new ‘intensive pedagogical approach’ to IEK learning, an approach that is symptomatic of socio-cultural change and adaptation.

I also briefly explored why a deficit discourse about cultural threat—targeted at young people by old, or vice versa—so often prevails. IEK adaptations are not neutral social phenomena but exact new tolls, and there are many tensions between observation and practice in contemporary learning processes. Even so, the decoupling between observation, practice and therefore performance, while reducing the physical ‘doing’ of IEK, is also creating new ways of learning and practice through the use of technology and organisationally auspiced IEK learning trips.
At the most straightforward level, this is an ethnographic study using mixed methods to examine the social lives of young Aboriginal adults and the social phenomena underpinning Indigenous Ecological Knowledge (IEK) learning practices, contexts and cultural-acquisition processes. A core argument of this dissertation is that while IEK has contracted and its social basis has narrowed there remains a resilience internal to Local Knowledge systems. This resilience is borne out of the adaptability of Aboriginal social systems and of its key players. While the adaptive capacity of Local Knowledge systems has been a mainstay of human ecology for some time (Berkes et al. 2000; Walker & Salt 2006, p. 73), recognition of youth IEK practices and the dynamism that young people contribute and inspire in the regeneration and application of knowledge in urbanised and contemporary environments is long overdue.

The main aim of this research has been to examine whether or not IEK was present in the lives of young Aboriginal people in Central Australia. To answer this question, I explored whether the repertoire of young people’s life experiences included IEK by closely examining socialisation and everyday practices in relationship to IEK and the contemporary contexts underpinning IEK transmission and acquisition. My central finding is that IEK is alive and well in the lives of young people today, actively influencing what young people do, say and think, and how they reference themselves in relationship to the modern Australian state. Furthermore, Aboriginal people, young and old, are actively creating and influencing contexts to use this knowledge through tactical engagement with each other and with external organisations. IEK
is expressed in the ongoing practices of hunting, natural resource use, ceremonial life, health and healing, in observances related to bereavement and funerals, and in an ongoing belief in the sentience of country.

I have also shown that, despite a narrowing of the social framing of IEK due to radical demographic change and the multitude of factors that sit behind this change, the Aboriginal response has been dynamic and innovative, if not always part of an articulated or collectively conscious strategy. In this, Aboriginal women play a role that exceeds the one normally accorded them in IEK, bridging the male demographic gap. John Bradley, working with Yanyuwa people in Borroloola (in the Gulf of Carpentaria in far north Australia), has observed that senior Yanyuwa women had knowledge of male songs that were performed publicly, although they did not sing the songs themselves (Bradley 2010, p. 19). Similarly, my research shows that in the absence of male kin, the aunties and grandmothers (who are numerically more plentiful) use their knowledge of (non-restricted) male cultural practices to make their substitutions more effective. The women also have knowledge that helps guide community cultural practices that involve both genders; for example, ‘finishing up’ during bereavement, or what is simply called ‘sorry’, and the annual special time for initiating and growing young men that involves full community participation of both men and women.

The incorporation of helping whites as a proxy middle-aged generation is also an innovative if inchoate response to demographic and wider socio-economic change. The distressing reality for young and older Aboriginal people is that helping whites are now a stand-in for an increasingly decimated and declining middle-aged generation. These modified responses to demographic change show the resilience of Aboriginal social systems to both absorb cumulative cycles of stress and adapt social learning processes. My work also gives a sense of what Aboriginal people are up against in their determination to relate to their country and why IEK is necessarily operating in what I have summarised as a ‘contracted’ form. As anthropologist Gerald Sider has noted for Inuit and Innu people, ‘as it became increasingly difficult to wrest a living from the land and the sea, it was possible to become increasingly displaced without yet moving’ (Sider 2014, pp. 26–27). Correspondingly, I gave evidence of a new intensive pedagogical approach to IEK learning, given the way learning events and opportunities are now so condensed and truncated. I have also shown that this contraction produces tensions between practice and
performance, with young people learning alongside and with the middle-aged generation, a scenario which is upsetting lines of respect and interrupting knowledge hierarchies.

The story of IEK and young adults is one of a continuum of change influenced by colonisation, and decades of discriminatory and exclusionary policies played out in tandem with Aboriginal agency and tactical responses to external pressures and drivers, and some of the more benevolent openings that Aboriginal organisations parleying government money are now providing. I argue that to understand contemporary youth practices an entry point for analysis is the 1870s when the early phase of dispossession and colonisation commenced in Central Australia (Rowse 1998, p. 7). Each generation has been severely impacted by government policy, changed economic conditions, and massive social and technological transformations. Examination of historical data reveals why assumptions about the responsibility of the decline of IEK are wrong when they are rested solely with today’s younger generation. In this concluding chapter I synthesise and discuss three meta-themes that encapsulate the key findings of my research: IEK and identity; the contemporary expression of IEK as part of an evolving knowledge system which includes organisations and helping whites; and the resilience and adaptability of Aboriginal social systems and related IEK practices. First, let me recap what drew me to this research and the gap it fills with its finding that IEK continues to be present and important in the lives of young Aboriginal adults in Central Australia.

I was motivated to do this research out of a concern that, amid the stereotypes and deficit narratives framing Aboriginal youth and IEK, little was known about what young people actually thought, said or did. In Australia, young Aboriginal adults in remote locations are ethnographically and theoretically marginal to anthropology (Kral & Schwab 2012, p. 7; Eickelkamp 2010, p. 147; see also Hirschfeld 2002 in regards to anthropology and contemporary youth practice in Brazil). Negative clichés about young adults are neat and convenient explanations that tell very little about what is really going on in their lives, especially in relationship to IEK. Young people are but one component within a system of knowledge that has multiple social actors and dynamic interactive flows, yet blame for the diminution of IEK remains unfairly (and conveniently) on them.

My experience of Aboriginal youth was not reflected in the stereotypes; a typecasting that
flattened youth and IEK into ‘one story’ that became ‘the only story’ (Chimamanda 2009). This includes the stereotypes that older Aboriginal people have about Aboriginal youth. As described in Chapter One, although two very different worldviews and ideological systems produce culturally based stereotypes, ideas of youth underachievement cross the racial divide. As an Aboriginal person well connected to the Central Australian Aboriginal community, Indigenous and other, I was well placed as an ‘insider’ to examine both black and white stereotypes. While truisms are partially established by fact, this thesis covers the realities of young lives that are under-referenced.

In combination with my concern over the ‘one story’ defining Aboriginal youth, very little in the Australian literature addressed youth practices in relation to environmental knowledge or analysed the social reproduction of Aboriginal knowledge from a young person’s point of view. This absence can in part be explained by respect protocols to do with knowledge authority: senior people are rightly deemed to be the ones who know and there is an urgent and genuine need to document their knowledge. Moreover, Aboriginal society is described as having a steep hierarchy with strict deference to seniority with a gerontocratic bias (Tonkinson 1988). Yet, the role of young people and how they learn, from whom they learn and what they do in regard to knowledge reproduction is consistently neglected. This is an absurd situation given that young adults are key social actors in local systems of knowledge. They provide the motivation and moral imperative for senior people to demonstrate, practice and perform knowledge. Indeed, despite their absence as voiced interlocutors, commonly the justification for projects initiated and carried out by organisations is to assist in ‘teaching of young people’ or ‘keeping knowledge strong for future generations’.

A central thread running throughout this thesis is that young adults play an important role in the dynamism of IEK, providing both its push and its pull. They are pushing IEK into the future through a re-imagining of practices related to IEK and are utilising different technologies in doing so. They are the pull in that they motivate and energise senior generations; they provide a purpose for the doing and practice of IEK in an organisational context, via activities that are no longer performed every day and are less frequently part of expansive ceremonial cycles, and accordingly, activities that are vital to the endurance of IEK.
Multiple paradigms and perspectives inform understandings of IEK (Johannes 1989; Sillitoe 1998; Agrawal 2002; Turner 2004; Gomez-Baggethun & Reyes-Garcia 2013). Yet there are ‘very few academic discussions of IEK from Aboriginal people in their own words’ (Holmes 2010, p. 287). In this respect my thesis is an Aboriginal reclaiming of the narrative associated with IEK, a relatively new term for an ancient system of knowing and being. My research is not about IEK in relationship to Western concerns and Western uses of Indigenous Knowledge. It is in relationship to Aboriginal people: Aboriginal youth and their families and the lives they are living now. My dissertation also forms part of a growing body of critical Indigenous research by Indigenous researchers (Denzin et al. 2008, p. 2), which began with the concerns of Aboriginal people, particularly older Arrernte women. It is also research conducted by an Aboriginal woman among Aboriginal people. As a member of the Aboriginal community in Alice Springs, I had heard the anxieties and fears of older people expressed over many years. Yet I soon realised that a youth perspective was missing: young people were the silent and taken for granted social actors in matters relating to the social reproduction of knowledge. This ethnography on IEK and Aboriginal youth is an Aboriginal contribution to the scholarship on IEK. I analysed interviews using qualitative ethnographic methods and through the lens of my lived experience as a Wardaman women married into an Arrernte family and as a mother of young adults and children.

The complexity and intricacy of IEK transmission is due to it being embedded within socio-cultural systems, ‘rather than the inherent complexity of any biological and physical environment’ (Ruddle 1993, p. 24). In other words, while understanding the biota is no simple thing, this is not what makes analyses of IEK so complicated. Rather, it is because people are involved. Not only that, but the kinds of people involved move in and out of shadows, rendered through projection and supposition in some areas, and assumption in others. For instance, the taken for granted nature of the intergenerational transfer of knowledge is built on the assumptions that, despite profound and rapid changes, the process of learning and the social organisation of learning more or less remains unchanged. In simplest form, the increasingly accepted recipe for the intergenerational transfer of knowledge is that putting an elder and some youth together on country will automatically create knowledge transmission. This recipe largely stems from organisational and government efforts to support IEK where IEK-based
projects meet the criteria of available funding and externally determined priorities. The upshot of these projects is an artificial recreation of IEK learning environments. This, by its very nature, alters the social processes of intergenerational learning. As my research has shown, programs supporting senior people and young adults being on country are critically important. What I do call into question is the organisational trimming of social relationships.

To counteract the loss of youth perspectives, I focused on the social processes, values and behaviour of young Aboriginal people in relationship to IEK. To recap, using youth friendly methods and techniques, this research involved young Arrernte people from Alice Springs, Santa Teresa and Ntaria and some middle-aged and senior Arrernte people. Young Warumungu people from Tennant Creek, a small town 500 kilometres north of Alice, also took part along with older Warumungu people. I interviewed 50 people (young and old, including non-Aboriginal people with long-term relationships with Aboriginal people), conducted a survey and carried out fieldwork over two years with families and organisations. While I underplayed the survey data, initiating the iPad questionnaire was an important part of opening avenues to young people, who then invited me on hunting trips and allowed more intensive interviews. My research also supports previous Australian research that describes the similarities in values and beliefs between older and younger generations (see Tonkinson 2011, p. 220; Brooks 2011, p. 209; Green 2014, pp. 131–136; Eickelkamp 2011, p. 109). However, where my work differs is that I focus on the learning processes and practices between young and old in relationship to ecological knowledge. My focus on the social reproduction of IEK adds to an emergent body of work in Australia on Indigenous adolescence, shedding light on the socio-cultural transformations shaping the processes of IEK transmission and acquisition. In so doing it helps to move past the deficit framing that dominates accounts of Aboriginal youth and IEK. While there are international examples of social reproduction of knowledge using a socio-cultural theory of learning, this work potentially contributes an Australian example to the scholarship in this area.
IEK re-imagined

As discussed in Chapter One, IEK has now reached the point where it can travel by its acronym and still be recognised across disciplines, yet for all its institutionalisation, for young people, the acquisition of IEK is not part of a fixed course. Young people live in highly complex and variable social, cultural, economic and ecological contexts. Due to demographic change, the incorporation of Western time observances and the premature deaths of senior people, young people have also inherited a severely limited social learning environment. Simply, there is less available time for learning. Going out bush is restricted to school holidays, long weekends and weekends. Young people have fewer senior people to learn from, less time to learn in, and less access to country while at the same time being under more pressure and negative scrutiny than previous generations. Amid all this, I found that young people have informal but purposeful IEK learning strategies. The strategies oscillate in expression and latency, allowing young people to overcome shortcomings and (similar to the older ladies) to squeeze the most out of opportunities. Furthermore, young people are central to senior people's strategies to create contexts through their engagement with organisations and projects that facilitate the use, practice and performance of IEK.

I have shown that IEK practices are recreated in multiple and diverse environments and contexts, such as the baby smoking ceremony, described in Chapter Six, which is held in urban Alice Springs. Baby smoking includes the participation of grandmothers, identification and harvesting of the appropriate plant species, *utnerrenge* / emu bush (*Erempholia longifolia*), and strict observances of gender restrictions. Yet the country the smoking ceremony takes place on is the common grounds of an Aboriginal women's health clinic, Alukura, in the middle of a town. Practices continue even where it is difficult to access country and even where the grandmothers might be fictive kin, with one standing in for the many that are not there. I have found that even where relationships between time and space have been disrupted, IEK continues to exist through the *relationships between people* who actively and innovatively recreate substitutions for country and kin in Alice Springs. Notably, it has also been observed that when country can no longer be accessed by people it 'change[s] the way country is understood and taught about within Aboriginal communities’ (Goodall 2001, p. 105). It has long been observed that, for
Aboriginal people, ‘everything begins and ends with country’ (Devitt 1994, p. 7). My research sheds light on the responses and adaptations Aboriginal people are making from urbanised centres where traditional lands are distant, where access is broken by the subdivisions of white settlers and where the logistical difficulty of arranging bush trips can defeat the best intentions. I also show how the contexts for IEK learning and teaching processes are being re-imagined through engagement with organisations and helping whites.

I have found that the younger generation want more learning opportunities and are interested in deeper levels of knowledge held by older people but are not available to them in everyday life. While IEK is not a part of everyday life, it is an annexed part of a 12-month calendar of activities and events attached to school holidays and projects auspiced by non-government and government organisations. This is both a vulnerability and a strength, signalling dependencies that are both a product of settler colonialism and evidence of Indigenous reappropriation of some of the forces of disruption and constriction. Opportunities for young people to learn deeper levels of knowledge became available when the context for the older generation to use this high level knowledge is (re)created, increasingly through organisational support and resourcing, such as the Tennant Creek traditional song project described in Chapter Six, where young men learnt songs they would not have learnt outside of the artifice of the project.

The needs of young people

IEK clearly informs youth identity, which is underpinned by connectedness to family, place, language and connection to country. Young people's sense of identity is also moulded by Western influences, such as the uptake of African-American music and fashion culture, and emerging ‘technosocial identities’ (Holmes 1999, p. 74; Tonkinson 2011, p. 218; see also Warikoo 2011, pp. 23–45). Identities are not static but are continually being created, recreated and are open to negotiation (Smith 2006, p. 307). The fragmented genealogies of young people means that there are now less social actors guiding youth into adulthood and helping shape identity during this time. As a result there is a heavy burden on the living: the resourceful and engaged uncles, aunts and grandmothers involved in young people's lives as they transition into adulthood. Significantly, it is the youth peer group, the largest demographic grouping in Aboriginal Australia, who are now themselves intrinsic to youth identity formation. The youth peer group
is critical to the success (or not) of knowledge collaborations within an organisational and inter-cultural space. Without an engaged cohort of youth peers, IEK activities and projects can fail (see Chapter Seven). Furthermore, unlike previous generations, Aboriginal youth are experiencing everyday life as ‘self-regulatory’ (Kral 2007, p. 29). This individuality includes how they perceive and re-interpret culture as part of an unfolding contemporary identity.

Young people continually reference and practice cultural processes that reflect IEK in ways which represent the nexus between identities, relationships with family members, emotional investments, and procedural ecological knowledge. For young people, acquiring IEK is not a linear, stable or orderly progressive process. It’s a zig-zagging between opportunities available through families or contexts actively created through engagement with organisations, and their own peer interests and tutelage. These learning strategies are socially based, including the incorporation of helping whites. Taken together, these socially based strategies strengthen socio-emotional bonds with peers and extended family. The importance of this phenomenon relative to the forces of poor self-image, sabotaged social and emotional well-being, mental distress and suicide cannot be emphasised enough.

IEK remains relevant to the identity needs of young Aboriginal adults in Alice Springs and Tennant Creek. In modern life there is no physical need for IEK: food can be bought from supermarkets, water is on tap, the modern Australian economy has been integrated into people’s lives, and there is subsidised access to modern medicines. It persists across Australia because IEK relates to the core essence of being Aboriginal. Despite all material needs and goods now being met through cash income or welfare subsidy from the state or private sector, going hunting, collecting plant foods and medicines, and taking part in ceremonial life vitally contribute to identity formation. As described in Chapter Four, young men who haven’t gone through men’s business have questionable identities within their peer group. Young women who talk inappropriately in front of male kin are judged by others to be myall (ignorant) for culture.

Conversely, having ‘bush’ knowledge is respected and desired. ‘Going out bush’ and the suite of activities that this phrase encompasses is an important identity marker. There is an extraordinary symbolic significance to going out bush with family or going hunting to young people’s positive self- and peer-identity. As Miller and Goodnow observe, ‘as people learn the practice
I have argued that IEK’s survival is no accident. It is taking place despite every reason for it not to, under radically reconfigured conditions of reproduction. There is now a condensation of learning, an intensity of learning. Senior people have to teach IEK quickly and young people have to learn quickly. Time pressures translate to shortcut ways of teaching and shorthand ways of learning. In the past, teaching was done collaboratively and fluidly; guidance, corrections and encouragement were given during the course of doing the activity over many iterations, often as not without words. Due to demographic change and new interpretations of intergenerational transmission, ‘teaching’ is now situated within an artificially constructed large group or classroom environment. There is one teacher (senior person) instructing many, a situation which occurs whether we are describing ranger programs or when people are on country learning the steps and lyrics to a traditional song. This way of teaching means that only a few young people have a chance to practice what is being taught as there is less time available and greater numbers needing to ‘have a go’. Group teaching means reduced practice. As IEK has gone from being an everyday activity to sequenced days in a 12-month calendar, contemporary IEK learning and teaching is intensified and placed under greater pressure. Yet while the condensation and compacting of knowledge acquisition and transmission creates its own levels of stress, it fosters innovations as well. However clunky, the new way of teaching and learning is what I consider to be part of a developing knowledge system, representing the fusion of old and new and the re-generation and re-working of olden time knowledge into new forms of knowledge use and application.

**Adapting socio-cultural learning theory**

A socio-cultural theory of learning provided the theoretical framework of this research, which itself stems from a variety of disciplinary traditions (Rogoff 2003, p. 10). Across these fields, individual learning is seen as part of cultural practice and process. I also drew on anthropological understandings of practice which provide a way of understanding the nexus between cultural forms, social relations and historical processes (Ortner 1989, p. 12, Bourdieu 1977,
Vygotsky 1978). From this perspective, young people become part of a culture through practice with meanings enacted in social relations evolving through time. Practice theory particularly resonated with this work: as I have clearly shown, Aboriginal people do not separate knowledge from practice.

Let me point out some additional links. The theoretical approaches of Barbara Rogoff (2003, 1990) and Patricia Marks Greenfield (1991, 2000, and 2004), drawing on developments in socio-linguistics, anthropological and practice theory, were key theoretical influences. Detailing the differences in learning across diverse cultural communities, Rogoff argues that individual learning and human development are cultural processes whereby children and adolescents build on the practices of prior generations. Individual learning is not individual at all but is a cultural process embedded in social practice through historical and biographical time (Scribner 1985; Wertsch 1985). Significantly, Rogoff points out the continually changing nature of cultural traditions (2003, p. 13). Similarly, my research demonstrates the dynamic nature of cultural practices within the idiosyncrasies of individual learning. Young people synthesise the knowledge of their parents, grandparents, aunts, uncles and peers with knowledge gained from their own life experiences, including their engagement with new technologies, with organisations and with helping whites.

Rogoff also details how Western schooling, now pervasive in the lives of children and adolescents, impacts cultural learning processes (2003, p. 13). She shows that the social context of development in non-Western cultural communities rarely included one-to-one (dyadic) interaction, and how this is now changing due to the influence of formal schooling (Rogoff 2003, pp.141–149). This is reinforced by my research which also shows that those young Aboriginal adults who have experienced formal education (the majority) are themselves modifying the interactional learning processes of IEK. Influenced by classroom education practices and the associated psycho-social behaviours that these cultivate, asking questions is now considered a normal way of gaining information.

In the context of IEK projects supported by organisations, young people expect older Aboriginal people to more explicitly instruct and lead learning activities as a teacher would in a classroom. They expect one-on-one interaction and explanation in packaged, authoritative bites. However,
for senior Aboriginal people this way of teaching remains foreign and artificial. The upshot is disappointment for both young and old. Learning IEK in the olden days was an everyday activity, with knowledge progressively built up and added to in the course of ordinary routines, augmented and put on trial in the course of needing to demonstrate mastery in mundane as well as ritualised ways. Repetition was the key to learning; repetition which took place alongside older knowledgeable kin who progressively extended understanding, skill levels and access to advanced forms of knowledge. Time was available, as was the need to eat, have shelter, enter ceremony, be a warrior, a wise person or a healer – in short, the need to survive and thrive – were the ‘curriculum incentives’. Practice and process was determined by seasonal and intra-cultural interactions across extended ceremonial and trade routes. Nowadays people’s time is ruled by cash, clocks and calendars. As the old ways have been truncated and interrupted, concurrent abbreviated ways of teaching and learning have evolved. This is a dynamic adaptation of transmission processes and points to the resilience of people in the swathe of modernity. To cope with the condensation of learning opportunities, as well as youth experience of formal education, a more structured Western pedagogical approach has crept in, without people necessarily realising these are the pressures under which they are now operating.

Adding to the theorisations of Rogoff and others, my research shows how Aboriginal people have incorporated organisations into their social systems and learning processes. For Aboriginal youth, organisations and helping whites are a key part of socio-cultural learning processes. As a result, the highly adaptable social processes of learning around IEK have become partly institutionalised, with all the frustrations and rewards, collaborations and misunderstandings, dependencies and space for autonomous relating this entails. Projects supported and resourced by organisations facilitate IEK practices and knowledge transmission that are otherwise not available in everyday life. The resourcing provided by organisations brings together Aboriginal and non-Aboriginal experts and introduces expensive media technologies to recreate past practices. The end product is a contemporary and dynamic expression of culture using digital technologies and diverse ways of presenting knowledge in new forums. This involvement of organisations and helping whites, and their role in providing the context for IEK use, increases even as it delimits the available knowledge and repertoire of practice available to young people. This contribution to understanding contemporary Indigenous intergenerational
learning processes in relationship to IEK complements the work of Patricia Marks Greenfield, who examined the processes of cultural learning and transmission in the midst of economic change across two generations of Zinacantan Maya women of Mexico (1991, 2000, and 2004). A central thesis of her work on the transmission of textile designs and weaving processes is that economic change influenced the way weaving was taught and learnt as the Zinacantan Maya moved from a subsistence to a market economy (2004, p. 81). Where my research differs from Marks-Greenfield is that I analysed the social reproduction of knowledge within a welfare state and where government-funded organisations are now part of the social fabric of Aboriginal lives. By the early 1970s the introduction of social security benefits and of land rights through the Northern Territory (albeit with no mineral or other resource rights) marked a major economic shift, making Aboriginal people land rich yet impoverished at the same time, in the rapid transitions from subsistence life to rations and barely paid wage labour, to a welfare and neo-liberal state. It was also in the 1970s that Aboriginal organisations were legislated into existence by the Commonwealth Government of Australia (Chapter Six). As Jon Altman notes:

... it was only from the 1970s that federal approaches to Australia’s Indigenous minority underwent significant change, with self-determination becoming the central term of Indigenous affairs policy for a short period. Suddenly there was a rapid escalation in federal involvement in Indigenous affairs including a dedicated government department, an elected Indigenous representative organisation, Indigenous specific programs, the establishment of thousands of community-based organisations to locally administer programs, and a bold start in the creation of laws to enshrine land rights for Indigenous Australians. (Altman 2009, p. 21)

While the universalisation of welfare meant more cash in hand (Rowse 1998), there was no attendant rising capacity or sustainable industries to replace missions and cattle stations or to alter the deeply entrenched disadvantage accruing from serial dispossession for the majority to enter into formal employment (see also Robinson 2012, p. 3). Within the deepening dependencies that welfare recipients are enmeshed in, Aboriginal people are utilising organisations to resource IEK learning activities and as a creative way of carving contexts for the use and practice of IEK. Put differently, the practices that maintain and reinforce IEK, what Bourdieu refers to as *habitus*, have been partially altered and transformed by state provision of welfare and organisational proliferation (Bourdieu & Passeron 1977). From Ortner, we can understand welfare as a ‘structural contradiction’ now shaping practice (Ortner 1989, p. 83). For example, welfare both prevents and enables family trips out bush to hunt and collect plant
foods and medicines. As a result, organisations are now part of the process involved in the intergenerational transmission of IEK and part of the intercultural space that characterises IEK today. Organisations and helping whites are part of the structural contradiction shaping Aboriginal practice: they have been assigned ‘relatedness’ and are part of the *habitus* of young and old (Myers 1991, Bourdieu 1977).

The combination of helping whites and organisational resourcing is producing new and innovative knowledge products and learning opportunities, while also being caught in the contradictions of their substitution effects. For instance, it is not uncommon for schools to be criticised for organising country visits as a misplaced form of cultural sympathy that distracts from a rigorous curriculum. Viewed differently, such sponsored events, however compromised, are vital to the transmission of Indigenous ecological – that is, systematic environmental, scientific and socio-cultural – knowledge.

**Applications of IEK**

In Australia, IEK, in conjunction with scientific knowledge, is purportedly being used to manage Aboriginal-owned land, Indigenous Protected Areas (IPAs), jointly managed national parks and reserves, and jointly managed federal national parks (Young, Ross, Johnson et al. 1991; Baker et al. 2001). Over 20% of the Australian continent is Aboriginal owned, referred to collectively as the ‘Indigenous estate’ (Altman et al. 2007). In the Northern Territory 50% of the land mass and over 85% of the coast is Aboriginal owned (Altman & Kerins 2012). Altman et al. (2007) observe that the Indigenous estate, while generally remote and of low commercial value (except for mineral extraction), nonetheless includes some of the highest conservation priority lands in Australia. Altman also shows that these lands face major introduced threats. Since the early 1990s, development and growth of the Aboriginal land management movement has been driven by Aboriginal people and their concerns to manage their lands for a variety of purposes, including to teach younger generations, maintain and enhance IEK cultural values and practices, and address threats to land condition (Davies, Higginbottom, Noack et al. 1999; Sithole 2007; Fletcher 2009). The grassroots led ‘caring for country’ movement arose out of Aboriginal people’s desire to keep associated knowledge strong (Young et al. 1991). In 2007, the
Australian Government created the ‘Working on Country’ program which provided seven years of secure funding to support ranger programs and led to an increase in full-time employment for Indigenous people in the Indigenous land and sea management sector (Altman, Kerins, Fogarty et al. 2008). For the (still too few) Aboriginal people employed as rangers using their Local Knowledge and work alongside multiple stakeholders (conservationists, scientists, government), they are being paid to look after country and provide ‘environmental services’ (see Altman 2010, pp. 273–274; Altman & Whitehead 2003). Altman makes the point about the ‘intercultural production’ occurring in Aboriginal land management, a point that is salient to this study. Aboriginal rangers are jointly applying IEK and Western knowledge and technology (for example, Cybertracker and remote sensing) in their work. Yet the popular discourse around Aboriginal land management frames it not in terms of its interculturality but as ‘cross-cultural’ or ‘two-way’ (see Chapter Six).

There are benefits and positives to the two-way methodology. In part, it seeks to counter the dominance of science-based approaches in Aboriginal land management (Preuss & Dixon 2012, Baumann & Smyth 2007, Muller 2012). A lasting impact of the two-way approach has been to alter scientific attitudes. However, as described in Chapter Six, implicit in the two-way approach is the idea that power is equally shared between Indigenous and non-Indigenous land managers and landowners. Research in the Northern Territory shows that this is not the case (Haynes 2009; Walker 2010). ‘Two-way’ risks being a masking term that appears to tick the right boxes, while matters of power and equity get swept away and ignored.

What has all of this got to do with IEK, intergenerational learning and this thesis? Teaching the younger generation and keeping knowledge strong were key motivating factors behind the emergence of the Aboriginal land management movement (Morphy 2005; Altman & Kerins 2012). When Aboriginal people lack equity and power in how they plan, manage and care for their lands, it impacts on IEK intergenerational processes by narrowing activities to those that strictly meet ecological objectives. For example, Jane Walker’s research (2010) in the Northern Tanami IPA showed that achieving equity between the differing conservation and development agendas of Indigenous peoples and partnering agencies was very difficult to achieve. Walker notes that, for the Warlpiri people, the Northern Tanami IPA represented a way to maintain cultural traditions, identity and spiritual connections, whereas for agency staff the priority was
improving the ecological condition of the IPA’s biota (Walker 2010, p.vi). I concur with the important points she makes about power and equity:

Such differing interests have constrained the achievement of management agendas within the Northern Tanami IPA. This is because partnership creation has not given enough attention to knowledge sharing, negotiation and investment in planning, decision-making and implementation over time. This has resulted in inequitable power relationships and imbalanced management accountability between Warlpiri people and partnering agencies. (Walker 2010, p.vi)

Aboriginal land management provides an important mechanism for the transmission and acquisition of IEK. Yet if Aboriginal people are not in real positions to make strategic decisions, prioritise activities, allocate funds, determine timeframes and contribute to overall planning, then it is not two-way. And, as Chris Haynes’s work on joint management efforts at Kakadu National Park also reveals, if the mechanisms for decision making are by their very nature computer-centric, office-based, meeting- and paperwork-heavy, and are thus alienating to sustained Aboriginal direction and control, then it is still not two-way (Haynes 2010). The very fact that the Australian Government sets the policy, financial, legal and administrative framework relating to Aboriginal land management is also a case in point. The pretense of two-way means that concessions and compromises are always being made by Aboriginal people. In Chapter Six, the land management practice of burning country was discussed. The organisation’s focus on yellow fire suits, drip-torches and walking to burn in a straight line takes equivalent learning attention away from the various types of fires used for hunting and other purposes, and their distinctive patterning, the fire tolerance of different plant species, the Altyerre for fire or language and kinship associated with fire . . . it takes away, that is, from Indigenous Ecological Knowledge. There is the assumption that Aboriginal rangers (in their twenties and thirties) will automatically have this cultural knowledge; that they would have acquired this knowledge at home or from family. This is one of the risks of IEK in the organisational space in relationship to intergenerational learning and land management: knowledge that is considered important and relevant has to fit within non-Aboriginal frameworks. Assumptions about IEK and youth are one of the greatest threats to IEK; a threat that is never listed as a threat and as a result does not receive the attention and analysis it deserves.

I suggest that the ameliorating term ‘two-way’ in Aboriginal land management does not live up to its name. Indeed, two-way or co-management has been heavily criticised as not meeting the
expectations or social and cultural interests of Aboriginal people (Davies et al. 1999; Robinson & Munungguritji 2001; Smyth 2001). The phrasing disguises difference, unequal power relations and inherently assumes processes and systems that are open to negotiation from both sides and, as my thesis has shown, are under incredible pressure.

The vulnerability of IEK with different policies

IEK has been, and continues to be, vulnerable to historical circumstance and government policy. One doesn’t have to go too far back in history to find recent impacts. In September 2007, the Australian Government divested responsibility for outstations or homelands to the Northern Territory (Altman et al. 2008). The NT Government, having being handed responsibility for outstations, developed a policy for outstations which ‘paradoxically, had little to say about outstations’ (Kerins 2009, p. 2). Instead the policy focused on the targeted delivery of government support to 20 large Aboriginal communities referred to as Territory Growth Towns which aimed to encourage greater numbers of people to migrate to larger settlements, essentially to make servicing easier (Kerins 2009, p. 2). The outstation movement of the 1970s had started through long advocacy over time because serially displaced Aboriginal people wanted to return to live in their own country (growing tired of living on other people’s country, or on their own country under untenably crowded and memory scarring settlement conditions); and out of concerns for the next generation. Homelands and outstations represented a way to ‘hold on to their young people’ (Morphy 2005, p. 2). They were viewed as critical to maintaining cultural practices and connections to traditional lands (Blanchard 1987). While they were never funded or supported in ways which made them able to become self-sufficient, later research showed that the outstation movement in Central Australia and the Top End also improved health and well-being outcomes, primarily because people were able to sweat and hunt on, to ‘care for’, country (McDermott, O’Dea, Rowley et al. 1998; Burgess, Johnston, Bowman et al. 2005). Put mildly, the recent NT Government policy negation of outstations has a direct impact on IEK.

Contemporary IEK is socially transmitted within the family. An important finding is that multi-generational activities and events initiated by Aboriginal and non-Aboriginal organisations in response to requests from community members or Aboriginal and non-Aboriginal staff also facilitates IEK transmission. In the past the acquisition of IEK was based on interactions with
immediate family and close kin tracing through their ancestral lands. Now, IEK is being transacted with strangers (non-kin such as helping whites or non-related Aboriginal people) as well as with extended family with larger youth cohorts. Yet, in the family and organisational space, young people continue to acquire IEK through social interactions, even where these interactions revolve around the use of new technologies, hastened country visits and expert facilitators.

Institutional frameworks and organisations are ever present in people’s lives and are, by now, unavoidable (cf. Collmann 1988, Holcombe 2005). For Aboriginal women in Central Australia, particularly grandmothers, relationships with helping whites are playing important roles in resourcing IEK activities and events. Aboriginal youth (including stereotypical ideas about Aboriginal youth needs and pathologies) galvanise social action and organisational responses.

Since the 1970s, desert Australia’s demography has shifted with unprecedented growth in the Aboriginal population alongside a fluctuating non-Aboriginal population (Taylor 2008). In the next 15 years, the Aboriginal population in arid Australia is expected to grow even more, and quite quickly. This highlights the rapidly increasing Aboriginal youth population and the predominance of Aboriginal people in arid regions (Taylor 2008), and in turn, the critical need for the provision of youth services as well as organisations that can incorporate youth into their general business. The risk of being unable to meet the challenges and needs of young people is heightened when there is so little information about young adults and their participation in the social and cultural lives of their communities, other than a generalised debasing of what they represent.

**Future research**

This thesis has raised a number of research questions that would benefit from further attention. I suggest a deeper exploration of matters relating to gender and knowledge reproduction, especially given the high morbidity and premature deaths of Aboriginal men relative to the (still too low) lifespan of Aboriginal women. Questions of gendered knowledge and the future maintenance of male knowledge is a significant matter that Aboriginal people will be grappling with in the immediate future. A longitudinal study that followed young people as they moved into their middle-aged years would also provide important information on intergenerational knowledge transmission. Such research would indicate whether or not their
knowledge increased or plateaued at a level consistent with knowledge acquired during childhood and adolescence. Additionally, even though young people are familiar and proficient with digital media, greater attention to digital learning environments in relationship to knowledge maintenance and intergenerational learning of IEK is an important undertaking (see Kral & Schwab 2012 for an overview of youth, literacy and media in remote Australia). However, while technology is part of young people's lives and already figuring in knowledge projects, I concur with the point made by Miles Holmes, an anthropologist who worked with Warlpiri people to the West of Alice Springs (Holmes 2010). He suggests that using digital media and databases in knowledge maintenance processes (and I would add practices) should be done in ways that restore ‘the contexts that give efficacy to IEK rather than restoring the knowledge itself’ (Holmes 2010, p. 278, my emphasis). Archives will never be enough.

**Indigenous Ecological Knowledge and its living future**

*Kin and Knowledge: The Meaning and Acquisition of Indigenous Ecological Knowledge in the Lives of Young Aboriginal People in Central Australia* is a study of learning and a study of knowledge which argues that a more appropriate reconceptualisation of young people and IEK is required, one that reflects their place in history. The IEK that is expressed today has been shaped iteratively, repeated and modified over generations in response to brutalising control over people's lives and related domination of traditional lands. Anthropologist Deborah Bird Rose points to an ongoing truth that ‘social and ecological impacts of conquest can be analysed together as one process’ (Bird Rose 2001, p. 4; Povinelli 1993). It is foolish to treat the practice and expression of IEK as if it exists unchanged and equally naïve to suggest that IEK is absent in young people's lives. My research has found that the major contemporary reflections of IEK – going hunting, taking part in annual ceremonial life, believing in the efficacy of traditional healing practices, valuing language skills, and observing rules in relationship to conscious country – are salient symbols of youth social identity. This research has found traditionally derived aspects of IEK persist and other aspects have radically changed. Relations between people, land, plants, animals and other elements were and continue to be shaped by people's relations to each other. These human–human and human–ecosystem relations continue, although modified. IEK continues to be integral to the living contemporary landscape in Central Australia.
While it is now widely accepted in the academic arena that traditions, processes and practices that make up culture change over time (Rogoff 2003), lingering still are questions of authenticity in the face of adaptation and dynamic socio-cultural processes. The denial of Indigenous Knowledge as legitimate knowledge has a long history and is described by Bob Scholte as ‘epistemocide’ (Scholte 1984, p. 964; Viveiros de Castro 2013, p. 477). I argued at the outset of this thesis that the trend of examining IEK in terms of the past sets up a traditional–modern dualism in which contemporary expressions of IEK are viewed as inauthentic. Such a treatment of contemporary IEK is a revised form of epistemocide. Yet while Aboriginal people have innovated and adapted, the question of authentic and inauthentic IEK remains. And those making the decisions around what is authentic IEK, what is real Aboriginal culture, whether to document, salvage or savage it, are usually non-Aboriginal people. Instead, this research has concentrated on IEK in its present form, approaching it as a legitimate knowledge system that continues to give meaning to young people’s lives. What is required is a more affirmative way of considering IEK, a way that sees its intrinsic properties, values, and modalities of existing as elements of a complex and viable knowledge system, and recognition of the difficulties people are overcoming in maintaining and renovating this vital knowledge.

My main argument is that IEK is present in the lives of young Aboriginal people. Young people are actively contributing to a dynamic system of knowledge. They are involved in generating and applying knowledge that is the mark of its ongoing relevance and vitality. They have not lost or given up their own claims on their country or on the beliefs and practices that define an Indigenous identity. In urbanised Alice Springs and Tennant Creek, core cultural beliefs and practices are being maintained through the vibrant re-imagining of kin and country, a rearticulation that closes the distance between geographic space and time and demographic gaps, creating new contexts in doing so. For all that IEK is itself the product of change – it did not exist as a knowledge category at first contact but rather was forged out of the displacements of settler colonialism – this is but one of the many contradictions young people have inherited and are actively navigating. The fact that IEK persists in the lives of young adults despite the historical circumstances and political forces that have worked to wipe out Aboriginal ways of being is an achievement in itself. It is a major accomplishment that IEK should exist at all in the lives of young Aboriginal people, and persist it does.
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SECTION ONE: THINKING ABOUT WHAT MAKES A GOOD LIFE

1. Please tell me if the following things are important or not so important to your idea of a good life.
   - Having a job
   - Education (school / study)
   - Having money to pay for things (house, food, petrol, clothes etc)
   - Family
   - Friends (not your relations)
   - Having bush skills and knowledge (e.g. going hunting, knowing the stories for your grandparents country)
   - Taking part in cultural activities (e.g. Women’s Law & Culture or Men’s Law & Culture)
   - Teaching my kids about Aboriginal culture (now or in the future)

Table 1. Things that are important to young adults (n=150, multiple responses)

<table>
<thead>
<tr>
<th></th>
<th>Important</th>
<th>A little bit important</th>
<th>Not important</th>
<th>Don't know/ Don't want to say</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>137</td>
<td>8</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Having bush skills &amp; knowledge</td>
<td>133</td>
<td>10</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Teaching own kids about Aboriginal culture</td>
<td>129</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Having money to pay for things</td>
<td>127</td>
<td>14</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Having a job</td>
<td>123</td>
<td>13</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Education</td>
<td>123</td>
<td>8</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Taking part in cultural activities</td>
<td>117</td>
<td>17</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Friends</td>
<td>58</td>
<td>67</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

2. When you were younger, where did you live most of the time? Please tick all the boxes that apply.
   - Alice Springs
   - Tennant Creek
   - Katherine
   - Darwin
   - Remote community
   - Outstation
   - City / town in another State
   - Don’t know / don’t want to say
3. If you grew up on a remote community or outstation, please tick the main place or places where you grew up. If you grew up on an outstation, you can tick the community closest to the that outstation.

The 78 young people who said they grew up in one or more “Remote” localities or “Both town & remote” named 28 different remote localities, of which the most commonly named were Ltyentye Apurte (Santa Teresa) (n=19) and Ntaria (Hermannsburg) (n=11), each about 60-90 minutes drive from Alice Springs.

4. When you were younger, are there places you went to on school holidays or visited? Please tick these places.

Table 2. Places where young adults went when younger during school holidays or other visits (n=150, multiple responses)

<table>
<thead>
<tr>
<th>Places</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOWN PLACES</td>
<td></td>
</tr>
<tr>
<td>Alice Springs</td>
<td>51</td>
</tr>
<tr>
<td>Tennant Creek</td>
<td>23</td>
</tr>
<tr>
<td>Katherine</td>
<td>17</td>
</tr>
<tr>
<td>Darwin/Top Edn</td>
<td>20</td>
</tr>
<tr>
<td>REMOTE PLACES</td>
<td></td>
</tr>
<tr>
<td>Family outstation</td>
<td>32</td>
</tr>
<tr>
<td>Station/pastoral property</td>
<td>5</td>
</tr>
<tr>
<td>A remote community</td>
<td>50</td>
</tr>
<tr>
<td>Two or more remote communities</td>
<td>46</td>
</tr>
</tbody>
</table>
Appendix / Survey questions and results

5. Where do you live now (where do you spend most of your time)? Tick all the boxes that apply.
   - Alice Springs
   - Remote community
   - Outstation
   - Tennant Creek
   - Katherine
   - Darwin
   - City / town in another State
   - Don’t know / don’t want to say

Table 3. Locations where respondents live now (n=150, multiple responses)

<table>
<thead>
<tr>
<th>Where do respondents live now</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice Springs</td>
<td>91</td>
</tr>
<tr>
<td>Remote Community</td>
<td>55</td>
</tr>
<tr>
<td>Outstation</td>
<td>10</td>
</tr>
<tr>
<td>Tennant Creek</td>
<td>9</td>
</tr>
<tr>
<td>Darwin</td>
<td>2</td>
</tr>
<tr>
<td>Interstate city/town</td>
<td>3</td>
</tr>
<tr>
<td>Don’t know/don’t want to say</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>172</strong></td>
</tr>
</tbody>
</table>

Table 4. Grouped current residential locations of respondents (recoded responses to Q5)

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town</td>
<td>83</td>
</tr>
<tr>
<td>Remote</td>
<td>46</td>
</tr>
<tr>
<td>Both</td>
<td>17</td>
</tr>
<tr>
<td>Other &amp; don’t know</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

The figures used here are re-grouped responses to current residential locations. This re-grouping in Table 4 has been used to analyse other survey responses.

6. When you were younger, how often did you go out bush? Please tick one box
   - Everyday
   - Most weekends
   - Once a month
   - A few times a year
   - Hardly ever
   - I never went out bush
   - Don’t know / don’t want to say

In the figures below:
   - ‘everyday’ and ‘most weekends’ are grouped as “All the time”
   - ‘Once a month’ and ‘a few times a year’ are grouped as ‘sometimes’
   - ‘Hardly ever’ and ‘I never went out bush’ are grouped as ‘Hardly ever or never’
7. When you were younger, who did you go out bush with the most? Please tick all the boxes that apply.

- Mother and Father
- Mother
- Father
- Grandmother
- Grandfather
- Great-grandmother
- Great-grandfather
- Aunties
- Uncles
- Older cousins
- School teachers
- Youth workers
- People from work
- Family friends
- Don't know / don't want to say
Appendix / Survey questions and results

Figure 4. When younger, who did you go out bush with most? (N=148, F 78, M 70)

More than one response per respondent. Total number of responses = 490. ‘Youth workers’ and ‘people from work’ grouped in Figure as ‘professionals’

**8. When you were younger, did your parents or the person who grew you up have a car? Please tick one box.**

- We always had a car
- We sometimes had a car and sometimes we didn’t have a car
- We never had a car
- Don’t know / don’t want to say
- Other (please specify)

**Table 5. Parents’/carers’ ownership of car when respondent was younger**

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always had a car</td>
<td>74</td>
<td>49.3%</td>
</tr>
<tr>
<td>Sometimes had car, sometimes not</td>
<td>69</td>
<td>46.0%</td>
</tr>
<tr>
<td>Never had a car</td>
<td>4</td>
<td>2.7%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
9. When you were younger and you got sick, did anyone take you to see a ngangkari / ngangkare (traditional doctor / healer)?
   • Yes
   • No
   • Don't know / don't want to say
   • Other (please specify)

Table 6. Was respondent taken to see a nangkari/ngangkare when young & sick? (n=150)

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>104</td>
<td>69.3%</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>22.0%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>13</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

SECTION TWO: THINKING ABOUT YOUR LIFE NOW

10. How often did you go out bush in the last 12 months (in 2011)? Please tick one box.
   • Everyday
   • Most weekends
   • Once a month
   • A few times
   • Hardly ever
   • I didn’t go out bush
   • Don’t know / don’t want to say

In the figures below:
   • ‘everyday’ and ‘most weekends’ are grouped as “All the time”
   • ‘Once a month’ and ‘a few times a year’ are grouped as ‘sometimes’
   • ‘Hardly ever’ and ‘I never went out bush’ are grouped as ‘Hardly ever or never’

Figure 5. Frequency of going bush in previous 12 months, by gender (N=148)
Appendix / Survey questions and results

Figure 6. How frequently did young adults go bush in previous 12 months, by residence location (N=146)

11. How do you go out bush? Please tick one box.
  - I go in my own car
  - I go with my family in their cars
  - I go with my friends
  - I go with work or school mob in their cars
  - There are no cars to take me out bush
  - Don’t know / don’t want to say
  - Other (please specify)

Figure 7. Main way of going bush as young adult, by residential location (N=144; 44 remote; 81 town; 17 both)
12. When you go out bush, what activities do you do? Please tick all the boxes that apply.

- Burn country
- Ceremony / singing / painting up
- Clean and look after soakage / rockhole / spring
- Collect branches / leaves for sorry business and other smoking activities
- Collect bush foods
- Collect bush medicines
- Collect bush tobacco
- Collect firewood
- Collect seeds and wood to make things
- Cook kangaroo tails
- Dig for honeyants
- Dig for witchetty grubs
- Don't know / don't want to say
- Have fun
- Hunting (kangaroo, emu, bush turkey, goanna etc)
- Kick around or play other games
- Look around
- Make fire for tea and damper
- Picnic
- Sorry camp
- Swim
- Visit people / families
- Visit special places with older family members (sacred sites)
- Other (please specify)
Figure 9. Activities by young adults when out bush, by gender (N=148; F 78, M 70)

Respondents gave more than one answer. Total number of responses = 1062. Responses grouped roughly with ‘cultural activities’ on left hand side of X axis; ‘recreational activities’ on right hand side; and ‘subsistence activities’ in the centre.

Figure 10. Activities by young adults out bush, by location where they live (N=146 respondents; 46 Remote, 83 Town, 17 Both)
Figure 11. Percentage young adults who reported doing activities, by locations where they live (N=146 respondents; 46 Remote, 83 Town, 17 Both)

13. Do you like going out bush?
- Yes
- Sometimes
- No
- Don't know / don't want to say
- Other (please specify)

Figure 12. Do young adults like going out bush, by gender (N=148)
Appendix / Survey questions and results

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Figure 13. Do young adults like going out bush, by location (N=144)

14. How do you feel when you go out bush?
   • Very positive
   • Positive
   • Neither positive or negative
   • Negative
   • Very negative

Table 7. How young adults feel out bush, by gender (N=148)

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>72</td>
<td>68</td>
<td>140</td>
</tr>
<tr>
<td>Neutral</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Negative</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>70</td>
<td>148</td>
</tr>
</tbody>
</table>

15. Is there anything that you don't like about going out bush? Tick all the boxes that apply?
   • It's too hot
   • It's boring
   • It's hard work
   • My friends don't go out bush
   • I'm not interested
   • No car to go out bush
   • I like going out bush, this question doesn't apply to me
   • Don't know / don't want to say
   • Other (please specify)
Table 8. What young adults say they do not like about going bush, by gender (n=148; multiple responses by some respondents)

<table>
<thead>
<tr>
<th></th>
<th>Too hot</th>
<th>Boring</th>
<th>No car</th>
<th>Hard work</th>
<th>Not interested</th>
<th>My friends don't go</th>
<th>Likes going bush, question not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>38</td>
<td>6</td>
<td>10</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>Male</td>
<td>25</td>
<td>4</td>
<td>17</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>10</td>
<td>27</td>
<td>7</td>
<td>1</td>
<td>11</td>
<td>46</td>
</tr>
</tbody>
</table>

16. Is there country that is important to you?
• Yes
• No
• Don’t know / don’t want to say
• Other (please specify)

Table 9. Proportion of young adults who have country that is important to them, by gender

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don’t know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>62</td>
<td>3</td>
<td>13</td>
<td>78</td>
</tr>
<tr>
<td>Male</td>
<td>66</td>
<td>1</td>
<td>3</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>4</td>
<td>16</td>
<td>148</td>
</tr>
</tbody>
</table>

17. Whose country is this?
No response categories were provided. Responses were grouped as follows:
• Grandfather includes people who said ‘Grandfather mother’s side’; ‘Grandfather father’s side’; ‘father and grandfather’, ‘great grandfather’
• Grandmother includes people who said ‘Grandmother mother’s side’ and ‘Grandmother father’s side’, ‘nanna’s’ ‘mother’s side’
• Grandparents includes people who said ‘family’, ‘mother and father’, and who mentioned a place with no other information

<table>
<thead>
<tr>
<th>Gender of respondent</th>
<th>Grandparents</th>
<th>Grandfather</th>
<th>Grandmother</th>
<th>Don’t know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>16</td>
<td>22</td>
<td>22</td>
<td>18</td>
<td>78</td>
</tr>
<tr>
<td>Male</td>
<td>16</td>
<td>29</td>
<td>16</td>
<td>9</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>51</td>
<td>38</td>
<td>27</td>
<td>148</td>
</tr>
</tbody>
</table>

18. Do you want to learn more about this country? Please tick one box.
• Yes
• No
• Don’t know / don’t want to say
• Other (please specify)
Table 10. Do young adults want to learn more about country that is important to them? (n=148)

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>110</td>
<td>74.3%</td>
</tr>
<tr>
<td>No</td>
<td>13</td>
<td>8.8%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>25</td>
<td>16.9%</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

19. Which box best describes your family? Please tick one box.

- My family go out bush all of the time
- My family go out bush sometimes
- It’s hard for my family to go out bush
- My family never go out bush, they aren’t interested
- Don’t know / don’t want to say
- Other (please specify)

Table 11. Frequency of young people’s family’s bush visits (n=148)

<table>
<thead>
<tr>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>31.8%</td>
</tr>
<tr>
<td>86</td>
<td>58.1%</td>
</tr>
<tr>
<td>8</td>
<td>5.4%</td>
</tr>
<tr>
<td>4</td>
<td>2.7%</td>
</tr>
<tr>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
</tr>
</tbody>
</table>

20. Who has taught you the most about hunting, bush foods and family connections to country? Please tick the boxes that apply.

- Mother and Father
- Mother
- Father
- Grandmother
- Grandfather
- Great-grandmother
- Great-grandfather
- Aunties
- Uncles
- Older cousins
- School teachers
- Youth workers
- People from work
- Family friends
- Don’t know / don’t want to say
- Other (please specify)

‘Youth workers’ and ‘people from work’ are grouped as ‘professionals’ in the figures below.
Figure 14. People who taught respondents the most, by gender of respondent (N=148 respondents, 78 female, 70 male)

Respondents gave more than one answer. Total number of responses = 422

Figure 15. People who taught respondents the most, by location where respondent grew up (N=143; 49 Remote, 65 Town, 29 Both)

Respondents gave more than one answer. Total number of responses = 393

21. Have you seen a ngangkari / ngangkare (traditional doctor / healer) in the last year (in 2011)?
   
   • Yes
   • No
   • Don’t know / don’t want to say
   • Other (please specify)
Table 12. Young adults visits to ngangkari/ngangkare in 2011

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>64</td>
<td>43.2%</td>
</tr>
<tr>
<td>No</td>
<td>67</td>
<td>45.3%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>17</td>
<td>11.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>148</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

22. Is there anything that makes it hard for your family to go out bush? Please tick all the boxes that apply.

- Our country is too far away
- No car
- Nobody to go with
- Not allowed, we need to ask first and get permission
- Not interested
- Don’t know / don’t want to say
- Other (please specify)

Table 13. Things that make it hard for young people’s families to go out bush (n=148)

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our country is too far away</td>
<td>38</td>
</tr>
<tr>
<td>No car</td>
<td>67</td>
</tr>
<tr>
<td>Nobody to go with</td>
<td>12</td>
</tr>
<tr>
<td>Not allowed, need to ask first &amp; get permission</td>
<td>4</td>
</tr>
<tr>
<td>Not interested</td>
<td>3</td>
</tr>
<tr>
<td>Don’t know/don’t want to say</td>
<td>33</td>
</tr>
</tbody>
</table>

“Other” responses were: Nothing makes it hard (4); No fuel/money (2); Work, school (1); Family split up (1)

23. Do you speak an Aboriginal language? Please tick one box.

- Yes, I can speak and understand a language or languages
- Yes, I understand a language or languages (but don't speak it)
- I know some words in language
- No, I can’t speak language
- Don’t know / don’t’ want to say
- Other (please specify)

Table 14. Young people’s ability to speak Aboriginal language(s) (n=148)

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, I can speak and understand a language or languages</td>
<td>106</td>
<td>71.6%</td>
</tr>
<tr>
<td>Yes, I understand a language or languages (but don't speak it)</td>
<td>17</td>
<td>11.5%</td>
</tr>
<tr>
<td>I know some words in language</td>
<td>18</td>
<td>12.2%</td>
</tr>
<tr>
<td>No, I can’t speak language</td>
<td>4</td>
<td>2.7%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>148</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

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24. What Aboriginal language or languages can you speak or understand (even if only a few words)? Tick all the boxes that apply.

- Akarre
- Alyawarr
- Anmatyerr
- Arrernte
- Gurindji
- Kaytetye
- Luritja
- Ngaanyatjarra / Ngaatjatjarra
- Pertame
- Pintupi
- Pitjantjatjara
- Waramungu
- Warlmanpa
- Warlpiri
- Yankunytjatjara
- Don't know / don't want to say
- English only
- Other

Table 15. Languages spoken by young people (n=148)

<table>
<thead>
<tr>
<th>Language spoken</th>
<th>Number of speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alyawarr</td>
<td>14</td>
</tr>
<tr>
<td>Anmatyerr</td>
<td>20</td>
</tr>
<tr>
<td>Arrernte</td>
<td>98</td>
</tr>
<tr>
<td>Gurindji</td>
<td>2</td>
</tr>
<tr>
<td>Kaytetye</td>
<td>5</td>
</tr>
<tr>
<td>Luritja</td>
<td>44</td>
</tr>
<tr>
<td>Ngaanyatjarra / Ngaatjatjarra</td>
<td>2</td>
</tr>
<tr>
<td>Pertame</td>
<td>3</td>
</tr>
<tr>
<td>Pintubi</td>
<td>3</td>
</tr>
<tr>
<td>Pitjantjatjara</td>
<td>32</td>
</tr>
<tr>
<td>Waramungu</td>
<td>8</td>
</tr>
<tr>
<td>Warlpiri</td>
<td>30</td>
</tr>
<tr>
<td>Yankunytjatjara</td>
<td>13</td>
</tr>
<tr>
<td>Don't know/ don't want to say</td>
<td>7</td>
</tr>
<tr>
<td>English only</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total languages spoken by respondents</strong></td>
<td><strong>292</strong></td>
</tr>
</tbody>
</table>

Other languages (all 1 respondent each, except Kriol) were: Alawa, Jingili, Kriol (2), Kukatja, Mudbura, Nuggubuyu, Tiwi
SECTION THREE: THINKING ABOUT YOUR FUTURE?

25. If you could learn more about Aboriginal culture, what would you like to learn about? Please tick the boxes below.

- Bush Foods
- Bush Medicines
- Songs / Dance
- Land / Stories
- Language
- Painting / Craft
- Hunting
- Family history
- Other things
- Nothing
- Other (please specify)

Table 16. Aboriginal culture that young adults want to learn more about (n=148, multiple responses per person)

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family history</td>
<td>101</td>
</tr>
<tr>
<td>Land/Stories</td>
<td>79</td>
</tr>
<tr>
<td>Bush foods</td>
<td>67</td>
</tr>
<tr>
<td>Songs/Dance</td>
<td>66</td>
</tr>
<tr>
<td>Hunting</td>
<td>60</td>
</tr>
<tr>
<td>Bush medicines</td>
<td>55</td>
</tr>
<tr>
<td>Language</td>
<td>48</td>
</tr>
<tr>
<td>Painting/Craft</td>
<td>38</td>
</tr>
<tr>
<td>Other things</td>
<td>14</td>
</tr>
<tr>
<td>Nothing</td>
<td>4</td>
</tr>
<tr>
<td>Total number of responses</td>
<td>532</td>
</tr>
</tbody>
</table>

26. How important is Aboriginal culture in your life? (hunting, country, Women’s Law & Culture, Men’s Law & Culture etc.). Tick one box.

- Very important
- A little bit important
- Not very important
- Not important at all
- Don’t know / don’t want to say
- Other (please specify)

Table 17. Importance of Aboriginal culture to young people in their lives (n=150)

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important</td>
<td>113</td>
<td>75.3%</td>
</tr>
<tr>
<td>A little bit important</td>
<td>21</td>
<td>14.0%</td>
</tr>
<tr>
<td>Not very important</td>
<td>6</td>
<td>4.0%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>10</td>
<td>6.7%</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
27. How important to you is learning about Aboriginal culture in the future? Please tick one box.

- Very important
- A little bit important
- Not very important
- Not important
- Don’t know / don’t want to say
- Other (please specify)

Table 18. Importance to young people of learning about Aboriginal culture in the future (n=148)

<table>
<thead>
<tr>
<th>Response</th>
<th>Number</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important</td>
<td>126</td>
<td>10.1%</td>
</tr>
<tr>
<td>A little bit important</td>
<td>15</td>
<td>2.7%</td>
</tr>
<tr>
<td>Not very important</td>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>4</td>
<td>85.1%</td>
</tr>
<tr>
<td>Total</td>
<td>148</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

SECTION FOUR: A LITTLE BIT ABOUT YOU

28. Who do you live with? Please tick all the boxes that apply.

- I move around a lot
- Partner
- Parents
- Grandparent(s)
- Great-grandparent(s)
- Aunts / uncles (or other older relatives)
- Brothers / sisters / cousins
- Friends (not family)
- Foster parents
- Other (please specify)

Figure 16. Who young people live with now (n=148)
Some young people live with more than one category of other people. For example, 11 (of 63) young people who said they live with parent(s) said they also live with great-grandparent(s), and/or grandparent(s), and/or aunt(s)/uncle(s). Nine (of 32) young people who said they live with their partner said they also live with their parents. 25 (of 40) young people who said they live with same generation family (brother(s)/sister(s)/cousin(s)) said they also live with older generation family.

29. How old are you?
(for results, see next question)

30. Gender

- Male
- Female

![Figure 17. Survey respondents, by age and gender (n=195)](image)

Results reported in other figures and tables exclude respondents over 25 years old.

31. Do you have children?
- Yes
- No
- I have children in my fulltime care, I look after them for other family members

Table 19. Young people’s parental status and other childcare responsibilities (n=148)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Has own children</th>
<th>Does not have own children</th>
<th>Does not have own children, but looks after children full time for family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>18</td>
<td>60</td>
<td>4</td>
</tr>
<tr>
<td>Male</td>
<td>21</td>
<td>49</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td><strong>39</strong></td>
<td><strong>109</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>

32. What’s your status?
- Single
- Married
- Separated
- Don’t know / don’t want to say
Table 20. Young people’s parental status and other childcare responsibilities (n=148)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>101</td>
<td>67.3%</td>
</tr>
<tr>
<td>Married</td>
<td>34</td>
<td>22.7%</td>
</tr>
<tr>
<td>Separated</td>
<td>4</td>
<td>2.7%</td>
</tr>
<tr>
<td>Don’t know / don’t want to say</td>
<td>9</td>
<td>6.0%</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>1.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
BLACK CARD FOR BACK INSIDE COVER
BLACK CARD FOR BACK COVER