‘Everything has its price.’

Conservation, development and Bedu

in St Katherine Protectorate, South Sinai

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This study describes the development of South Sinai, Egypt, and the role played in it by conservation. South Sinai has great ecological, cultural and strategic significance. Its central highlands, sacred to three faiths, form the St Katherine Protectorate, and its indigenous population consists of Bedu from eight tribes or confederations. The 1967 Six Day War resulted in intense transformation and intervention first by Israel and then by Egypt. Before 1967 core bedouin livelihoods were agropastoral, but sedentarization and economic change made them uneconomic, increasing bedouin dependence on paid work. Since 1982 Egyptian policy has focussed on ‘Egyptianizing’ Sinai and exploiting it through its tourist industry. Both processes exclude Bedu, who are now a marginalized minority. Conservation policy is central to this outcome and the dysfunctions which result.

I argue that Egypt’s conservation agenda in Sinai permits the claim that ‘something is being done’ to combat environmental degradation caused by settlement and tourism, while providing a mechanism for controlling a problematic minority. First I examine the context, goals, logic and practice of Egyptian environmental and conservation policies and then their application to St Katherine, focussing on ‘overgrazing’ narratives that have led conservation policy. These attribute vegetation loss to Bedu, ignoring alternative evidence, and providing a rationale for their ‘re-education’.

Second I examine the impact of these interventions upon bedouin livelihoods, demonstrating a 95% decline in flock size from the 1960s to the present day, and the loss of viability of pastoralism. I illustrate growing polarization within bedouin society, and demonstrate lower access by Bedu to most goods and services compared to the general population. For half my sample (122 individuals in 82 households) income falls at or below $1 per person per day. 80% of Bedu are shown to experience food poverty compared with 44% of Egyptians. Official data on Bedu are not collected, and their poverty thus ignored by planners. I believe this is the first time their poverty has been demonstrated.

Finally I examine how the Bedu have responded to marginalization and inequality. I argue that bedouin identity is eroded by their structural inequality as citizens, especially in town where it is most apparent. Attempts to revalidate themselves as Bedu crystallize around dissatisfaction with the Protectorate. As an act of resistance, Bedu have ‘reinvented’ an identity as guardians of nature, just as their actual dependence on nature declines.
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Declaration

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For Francis

Bel ami, si est de nus

Ne vus sanz mei, ne mei sanz vus

Thomas: ‘Tristan’
Acknowledgments

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At some point in 2007 I emailed Avi Perevolotsky, who had published the core research on which I based my study. By return Avi offered to share his original notes - provided I would come to Israel to get them. This initiated a trip to Jerusalem in 2008 from which Francis and I returned with a greatly enlarged outlook, and having been introduced to a panoply of distinguished Israeli scholars. I am grateful to Avi for his hospitality, his intellectual generosity, and for introducing me, directly or indirectly to both Smadar Lavie and Emanuel Marx - the only time in living memory I was actually tongue-tied. All have inspired me with their encouragement as well as their work. In the fraught and contested space of South Sinai one has to tread with especial care, but I hope profoundly that we will be able to build on the connections we have made. My deep thanks go to all of them.

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And in the end, Francis, who has supported and helped me unfailingly with his patience, love, generosity and brilliance, and whom I should I embarrass were I to thank him as I should wish. My work is dedicated to him, in love and gratitude, always.

The author

Hilary Gilbert completed her first degree, in Modern and Mediaeval Languages, at Cambridge in 1975.

Her professional career has been spent as a practitioner in the health and community sectors, for the past fifteen years in the community foundation movement. Within these fields her research experience has been mostly informal. Projects for which she was largely responsible in design and execution include an unpublished Rapid Appraisal Community Health Needs Assessment for Nottingham District Health Authority in 1990; a literature review of patient involvement in healthcare decision-making (Farrell C & Gilbert H (1996) Health Care Partnerships. London: King's Fund); and community needs assessment undertaken as Executive Director of the Derbyshire Community Foundation (Jones R, Gilbert H, Subhra G & Lyford J (1998) A County of Contrasts: A study of disadvantage in Derbyshire. University of Derby). In 1994-6 she took an Open University graduate module in research method and evaluation.
Photographs: 1.1: St Katherine’s Monastery; 1.2: Apricot in flower, W Shreij garden; 1.3: Livestock foraging, W Baghaha; 1.4: Sinai Baton Blue butterfly

(1&4: Mike James; 2&3: HG)
Chapter 1

Introduction & conceptual framework

1.1 Introduction

This thesis is about the price marginal people may pay for development. Specifically, it concerns the way in which development as conservation can be used by a modernizing regime masking pursuit of wider economic and political goals. In South Sinai it permits the claim that ‘something is being done’ to combat environmental degradation caused by settlement and tourism, while providing a mechanism for controlling the Bedu.

There are three stages to the argument. First I examine the context, goals, logic and practice of Egyptian environmental and conservation policies and then their application to the St Katherine Protectorate. I focus on overgrazing narratives that have informed conservation policy, persistently attributing vegetation loss to bedouin destructiveness and justifying the appropriation of ‘Indigenous Knowledge’ and the ‘re-education’ of the Bedu. Second I examine the consequences of forty years ‘development’ upon bedouin livelihoods that have sidelined historic pastoralism. I illustrate how the resulting reliance on paid work has increased inequality within bedouin society; and demonstrate previously unrecognized poverty in bedouin communities. Finally I examine how the Bedu have responded to the marginalization and inequality development and conservation have wrought. I argue that bedouin identity is eroded by their structural inequality as citizens, especially in town where it is most apparent. Discernible attempts to revalidate themselves as Bedu crystallize around dissatisfaction with the St Katherine Protectorate. In response Bedu have ‘reinvented’ an identity as guardians of nature, just as their actual dependence on nature declines.

The setting: South Sinai

The Sinai Peninsula links Africa to Asia, forming a triangle between the horns of the Red Sea (Map 1, p13; see photographs p 11). It is a place of superlatives and extremes. Its spectacular geology includes the highest mountains in Egypt, vast stony plateaux and parched coastal plains. Its mountains are green with aromatic herbs in spring and - in a good year - white with snow in winter; its plains are among the hottest on earth, its coral reefs among the richest. It harbours relicts of fauna and flora from both the continents it connects: many of its species are rare and endangered, and include Egypt’s highest concentration of endemic plants and the world’s smallest butterfly. Continuously inhabited for at least 10,000 years, South Sinai’s early history includes invasion by Egyptians, Nabataeans, Romans and Muslims, settlement by Bedu and early Christian monks. It hosts
the Monastery of St Katherine, the world’s longest-practising Christian foundation. It holds pilgrimage sites sacred to three faiths: Jews, Muslims and Christians acknowledge it as the site of the Exodus, and of Moses’ receiving of the Ten Commandments on the mountain known now as Jebel Musa. By any standards, South Sinai is special.

**Map 1: Sinai peninsula, showing St Katherine**

There are few detailed maps of Sinai. Those not in Arabic are generally based on Israeli military maps from the 1970s and reflect their nomenclature (this one gives both Hebrew and Arabic names). The South Sinai Governorate border follows the road from Suez through Nakhl to Taba, following the old Darb Al Haj, the pilgrim route from Cairo to Makka. The development of St Katherine is very recent: until the 1970s there was no village, only the Monastery.

Since well before the Islamic era, South Sinai’s indigenous population has consisted of mobile bedu (people of the desert). In 1967 Israel captured Sinai from Egypt, beginning a fifteen-year occupation of the peninsula. Rapid economic change, settlement and the widespread availability of migrant labour produced wholesale shifts away from core
livelihoods of semi-nomadic pastoralism, agriculture, hunting and fishing. In the years since 1982, when full Egyptian government resumed, South Sinai has experienced prolific commercial development through tourism and substantial donor investment. An analysis for the Egyptian Environmental Affairs Agency (SEAM 2005: 20) concluded that ‘the Bedouin can hardly fail to benefit from these investments’. Yet South Sinai Bedu remain among the poorest and most marginalized of Egyptian citizens; a position reinforced by the government policy of settling mainland Egyptians in large numbers in the peninsula backed by a massive security presence. Development on this scale threatens the environment, provoking calls for conservation measures. The Egyptian government has responded by gazetting almost 40% of South Sinai’s landmass and most of its shoreline as Protected Areas (PAs). The St Katherine Protectorate intended to promote bedouin participation in its conservation measures, based partly on the assumption that Bedu caused habitat loss by overgrazing. Alternative livelihoods and ‘sustainable’ development were promised through ecotourism. Yet many promises were not delivered, and most Bedu have had little opportunity to profit from all this change. Many are ill-at-ease with their life today. They blame ‘the Egyptians’ - conflating conservation authorities, local and national government - for despoiling the environment and failing to benefit the community.

My study grew out of my personal involvement with South Sinai and the people who live there. Repeated short visits to St Katherine since 1992 had allowed me to observe the area’s rapid development, and the emergence from it of two paradoxes. First, its promotion as a tourist venue had seen hotels and tourists proliferate in former fishing hamlets and in St Katherine itself. Yet, the more the resorts grew, the fewer Bedu were seen in them. Increasingly they were visible only in low-key, low-paid roles on desert treks, where their knowledge made them indispensable. The economic prosperity was creating, and leaving behind, a marginal people. The second paradox concerned conservation. Being attached to a group of academic ecologists doing fieldwork in St Katherine, I appreciated the significance of the Protectorate as a ‘flagship’ national park: beautifully produced literature spelled out the importance Egypt attached to ‘conserving its natural heritage’. Yet developments took place in South Sinai’s national parks that contradicted conservation messages: in St Katherine Protectorate a huge landfill site, new hotels with swimming pools, and a proposed link road cutting through a magnificent wadi. These things and more suggested that conserving South Sinai’s environment was not a serious government priority.

The study

The first question driving my research, then, was this: when money is flowing into Sinai and so many people are profiting, why do so few Bedu seem to benefit? My second question
was: if Egypt is so committed to conservation, why is its environment so compromised? what is conservation in Egypt really about? A third then flowed from them: how are these questions related? what impact has conservation, or more accurately development-as-conservation, had on bedouin communities, and what role has it played in combatting or contributing to their marginalization?

In order to answer these questions my study was guided by two objectives:

1: To investigate the effects of development imposed by successive regimes on bedouin life and livelihoods in South Sinai since 1967.

2: To assess the specific impacts of conservation, in discourse and practice, on Bedu in and around St Katherine.

The study locates contemporary Bedu in South Sinai as a residually pastoralist group with a range of additional specialist occupations. I describe pre-1967 livelihoods from data gathered in the 1970s, and how Bedu have adapted them in response to the political factors that have produced St Katherine. I review Egyptian environmental policy-making and examine the discourses that have informed the management of St Katherine Protectorate in its European and Egyptian phases. I examine people’s relationship with conservation authorities and the state, and the role conservation-as-development has played in bedouin marginalization. In particular I interrogate the dominant narrative of ‘Bedouin overgrazing’ and reasons for its persistence. I present livelihood data from my fieldwork, comparing them historically, where I can, with the pre-development and early development eras; and spatially, examining differences in people’s experience in the urbanized area of St Katherine and outside in the wadis. I conclude by exploring bedouin response to development, and their ‘reinvention’ of an environmental identity as a means of resistance. Between chapters I contextualize my findings with ethnographic insights derived from my fieldwork.

To make sense of my findings my thesis first presents the multiplicity of factors that have produced the situation I investigate. My first four chapters are devoted to background and contextualization. Following this Introduction, there are two stages to my literature review. First, I identify political ecology as my chosen conceptual framework, examining how perspectives based on analysis of power relations and discourse can illuminate conservation and development policy and practice, and Bedu-state relations. I then explore the application of the concepts of political ecology to contemporary Bedouin societies, reviewing the literature on pastoralists in general, and Bedu in particular, and describing bedouin relations with the states of which they are more-or-less engaged citizens. I review cultural aspects that shed light on bedouin experience in South Sinai, and describe South Sinai Bedu custom and practice as it appears in the literature. I go on to describe historic core
livelihoods of Jebeliya Bedu in St Katherine from research produced during the Israeli occupation.

As well as setting out my methodology - participant observation, language and interviewing, study design, sampling and analysis - I then explain my personal involvement in my study area. I have a dual role in St Katherine: as well as a researcher I am Chair of the Community Foundation for South Sinai (CFSS)\(^1\), an Egyptian-registered NGO which I co-founded with my husband, Egyptian and bedouin friends; this background has significantly influenced both my approach and people’s responses to me. I also consider issues of representation and the responsibility of researchers to the people they study in an authoritarian regime.

South Sinai has undergone two major waves of development since 1967 under Israeli occupation and subsequent Egyptian governance, and I describe them through the narratives of those in power. I examine the economic impact on bedouin households of sedentarization under the Israelis, and the subsequent impacts of tourism and Egyptian social planning.

With the scene thus set I investigate Egyptian environmental policy-making, and the establishment of St Katherine Protectorate, exploring the Protectorate’s relations with bedouin communities under its two management phases - European and Egyptian - and considering the influence of national and transnational governance in shaping those relations. I interrogate the persistence of ‘Bedouin overgrazing’ narratives in the face of alternative evidence, drawing on research from both the Israeli and Egyptian periods in what is now St Katherine Protectorate. I examine the role of modernist discourse in perpetuating essentialized views of the Bedu.

My livelihood data provide evidence of dramatic change in core bedouin livelihoods since 1967. Drawing on data gathered in the 1970s I have been able to compare historical agropastoral practice and household economics with evidence gathered forty years later from the same sample families. I make spatial comparisons between herding and horticulture, livelihoods and earnings, and patterns of consumption between Bedu living in the urbanized space of St Katherine and those outside the town in rural wadis and settlements, illustrating increasing polarization in bedouin society. I use national datasets to demonstrate that significant numbers of Bedu live in poverty, unacknowledged by the Egyptian state.

\(^1\) Registered in el Tur: No. 2006 -02. www.southsinaifoundation.org
Finally I examine the impact on Bedu of living with multiple inequalities: both the increased polarization of bedouin society and the structural inequality of Bedu as Egyptian citizens. I analyze bedouin responses to development and conservation experienced as control, noting spatial differences that include hostility among town-dwellers to state-led conservation. I seek to explain this as a response to a perceived existential threat, leading to the ‘reinvention’ of bedouin environmental identity as an act of resistance.

Throughout the text I have inserted narrative of a different type: quotations or examples from my fieldwork of insights, events or conversations to illustrate points. I do so hoping to create what Gupta & Ferguson (1997:2) call: ‘the “polyphony” of ethnographic fieldwork – the many different “voices” present in the actual discussions and dialogues through which ethnographic understandings are constructed’. I have also tried, in the interludes that separate my later chapters, to provide ‘snapshots’ of the experience of individual Bedu who spoke with me. Focussing on livelihood strategies at the margins of a tourist economy, the interludes record actual conversations and events which I witnessed or took part in, and interpreted in the light of my observations, experiences and relationships.

As I explain below, political ecology has provided the prism through which I have chosen to view the rich mix of information, perception and feeling that people have shared with me. As well as casting light, of course, a prism bends it. The information gathered during my fieldwork comes almost entirely from Bedu, and my chosen viewfinder magnifies the elements - poverty, powerlessness, injustice - on which I focus. I risk, then, being seen as presenting a one-sided view. However, the bedouin perspective being barely visible in Egyptian official discourse, my aim is less to ‘present’ it - a job they would do themselves if anyone were listening - than to enlarge the field of enquiry; to make visible the fact that a bedouin perspective exists at all.

**Points of clarification**

**Notes on usage**

I use the French-derived term ‘bedouin’ as an adjective. When referring to bedouin people I do so as ‘Bedu’ or ‘the Bedu’ - the name people most commonly apply to themselves in St Katherine\(^2\), and the one chosen by most people I asked what I should call them in my writing. Although Arabic does not use capitals, I capitalize it in transliterating proper nouns.

\(^2\) Tribes other than the Jebeliya refer to themselves also as ‘\(\text{\'arab}\)’, but - not being of Arabian origin - the Jebeliya do not (see Chapter 2).
I use apostrophes - ‘the Bedouin’, ‘the Egyptians’, or ‘the Israelis’, to indicate the use by a speaker or writer of an essentialized and usually derogatory stereotype.

I avoid the use of ‘traditional’ as a blanket epithet; but where it serves a useful purpose I use it to describe practice in the pre-development period before 1967.

I use the English and Arabic names - ‘St Katherine’ and ‘Katriin’ - interchangeably throughout the text to denote the growing urban centre in which the Protectorate administration is based. I refer to the St Katherine Protectorate by a variety of names and acronyms, as it appears in the (mostly grey) literature I have consulted: The Protectorate, the PA, the Park, SKP and the Mahmiya, its local name.

Transliteration

‘There are some scientific systems of transliteration, helpful to people who know enough Arabic not to need helping, but a wash-out for the world. I spell my names anyhow, to show what rot the systems are.’ I incline to this approach by TE Lawrence (Marx & Shmueli 1984: frontispiece), using the accepted spelling of common place names where there is one, and otherwise my own approximately phonetic system, devised because the language I quote is colloquial and without a proper written form. I use a simplified version of the standard system, as follows: I do not distinguish between ‘heavy’ and ‘light’ consonants (s, t, d and z sounds). The advent of word-processors complicates the traditional use of forward and reverse apostrophes for hamza and ‘ayn, as they are automatically corrected to fit their position in the word, not the desired transliteration. I therefore use an apostrophe for hamza, and 3 for ‘ayn, as many Egyptians now use it (or 7) informally, and I am representing informal language. I stick to gh for ghayn. My rendering reflects local pronunciation, and may thus be different from recognized forms (as, for example, in the calls to prayer or some legal terms). Like all Bedu (Bailey 2002: xix) those in South Sinai pronounce ‘q’ as a hard ‘g’, and ‘j’ as ‘dj’. Jebeli vowels, however, are closer to Egyptian Arabic than many other tribes, as scholarly translations (eg Bailey 2002, 2004) make clear.
1.2 : Conceptual framework: political ecology

A study of the Bedouin must take into account the impact of rapid and often turbulent changes in the wider political arena on the Bedouin economy. It must show how various economic pursuits produce numerous sectors and lifestyles within this Bedouin society, existing side-by-side and yet linked up with one another, each sector adapting in its particular manner to changing political and economic circumstances. The study is therefore quite unlike the standard anthropological monograph. It works with an open system that emphasizes wider social contexts. The ethnography thus becomes exceedingly complex, wide-ranging and disjointed, and therefore lacks the dramatic unity of persons, time and plot that makes a good read.‘ (Marx 2003: 6-7)

As Marx suggests, my study is wide-ranging and cuts across several disciplinary boundaries. In this chapter I will explore how perspectives derived from anthropology, development and conservation, marshalled under the umbrella of political ecology, may combine to disentangle the impacts of conservation policy and practice from other factors at work in St Katherine, and elucidate the experience of Bedu in South Sinai.

My initial focus was on fundamentally ethnographic concerns: traditional livelihoods adapted in response to a range of interventions over time, and the consequences for people’s lives. The main points of comparison with my data were to be detailed data on orchard horticulture, animal husbandry and household economics collected in the 1970s by Avi Perevolotsky and his collaborators, living and working in the central South Sinai massif in what would become the town of St Katherine. I had expected to pin what I found to a conceptual grid composed of understandings of ‘Bedouin culture’; noting how and why altered herding patterns had affected the mobility of young women, for example, and linking their increasing confinement indoors with revised conceptions of honour and shame, changing patterns of marriage, livelihoods and gender relations.

In the course of my fieldwork\(^3\), however, my central concern shifted to contextualizing these changes within the power relations that have applied under Sinai’s successive regimes. The past forty years have witnessed the introduction of multiple development processes, many ostensibly aimed at improving life for South Sinai’s inhabitants (with or without their consent), but in practice acting to control and corral the Bedu in a pen of their own tradition.

Most Israeli accounts present the changes that occurred in bedouin life during the Occupation as uncontested developments, accepted more-or-less grudgingly by the Bedu as first steps in an inevitable process of modernization (I examine them in chapter 4). Fast-forward forty years, and the UNDP’s Egypt Human Development Report speaks fulsomely – in its sole reference to Bedu – of the improvements in their lives resulting from the St

\(^3\) Undertaken during several periods of residence in Katriin, 2006 - 2009.
Katherine Protectorate’s development programme (UNDP 2005: 11). Both narratives trumpet the benefits of ‘progress’ for ‘the Bedouin’ under the dominant regime. Both regimes pursued massive development agendas, with exponential growth in infrastructure, in the apparatus of development (often linked to conservation) and in the economy of South Sinai. In Egypt’s case this has been achieved not by employing bedouin (as was the case during the Israeli Occupation), but by encouraging immigration by Nile Valley Egyptian workers and pursuing ambitious plans to to settle three quarters of a million more by 2017. Despite the anticipated ‘trickle-down effect’, and much rhetoric valorizing ‘Bedouin heritage’, these interventions have manifestly failed to benefit most Bedu: among my interviewees more than half of those in work lived close to the absolute poverty benchmark of US$1 per day. The massive security presence in South Sinai provided me with daily experience of life in a state unafraid to exercise its authority by force, just as its settlement policy imposes distinctly urban norms on a culture produced by the desert.

My interviewees, then, generally lived in poverty, a marginalized tribal minority governed by an authoritarian nation-state. Collectively, they presented a nuanced picture of their lives in which positive reception of some recent changes was balanced by cynical resentment and a bitter-sweet nostalgia for the past. Individually, their responses were polarized: vehement anger, on one hand, against authorities universally described by the umbrella term al masri (‘the Egyptians’) (International Crisis Group 2007:11), balanced on the other by a resigned acceptance - what Appadurai (2004: 81) has called ‘the paradox of patience in the face of emergency’. Al hamdulillah! (Thanks be to God!) people would say, counting their decidedly mixed blessings. People’s concern for, and deep attachment to, their natural environment, loomed large in almost every interview I undertook as well as countless informal conversations, often forming the crux around which anti-Egyptian feeling was expressed. Views on the Israelis, however, were more ambivalent. It rapidly became clear that the position of the Bedu in this highly contested place required a broader analysis than ethnography alone would provide.

Identifying a conceptual framework with which to interpret my research proved just as complex as Marx had warned. Numerous factors have combined to produce modern St Katherine, and the Protectorate named after it, in the forty years or so of its existence as a place. Interpreting St Katherine required a broader analytical schema capable of embracing that complexity, dealing with what Robbins (2004) describes as sets of ‘nested’ variables in which global, national and regional policies have discernible, but often unrecognized, local

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4 The current resident population of South Sinai is at most 80,000, of whom at most half are Bedu (www.misrintranet.capmas.gov.eg). Only 0.1% of South Sinai’s land is cultivable (UNDP 2005), and until 2010 had 15 years with little or no rain, so resources to support the planned influx – despite the EU-funded piping of Nile water into St Katherine – are limited. I expand on this in Chapter 4.
impacts. The issues that emerged in St Katherine cut across anthropology, development and conservation science.

Political ecology starts from the understanding that environmental change and ecological conditions result from political processes. Peet & Watts (1996: 6) note that this type of analysis has resulted from scholars in different disciplines pursuing similar areas of enquiry rather than developing from a coherent body of theory. Bryant (1992) identifies those lines of enquiry as questions of access, contextual sources of ecological change, and their political ramifications. Political ecology has generated multiple definitions and descriptions: pertinent to my study are those of Blaikie & Brookfield (1987): ‘[it] combines the concerns of ecology and a broadly defined political economy’; Hempel (1996), who described it as: ‘the study of interdependence among political units and of interrelationships between political units and their environment’; and Stott & Sullivan (2000), who note: ‘[it] identified the political circumstances that forced people into activities which caused environmental degradation...[and] involved the query and reframing of accepted environmental narratives, particularly those directed via international environment and development discourses’ (Robbins 2004: 6-7).

‘Anthropology’ as Green points out ‘is explicitly political,’ while ‘development...has prioritised understanding society with a view to social improvement’ (Green 2006:111). Development as a term is multivalent; classically defined as ‘an autonomous process of immanent change’, it also refers (often capitalized as Development or apostrophized as ‘development’) to ‘a directable process integrally linked with [it]’ (Vincent 2004: 112). It is in the latter sense that I use it: as a prescriptive process, directed by ‘trustees’ (Cowan & Shenton 1996) including states, multilateral agencies and NGOs, designed to secure ‘progress’. That ‘progress’ may embrace environmental as well as social goals: there is little difference in practice between prescribed development and prescribed conservation. Both are planned government exercises transforming natural resource use, landscapes, societies and economies, which from local perspectives can look identical (Brockington 2002). As Sachs (1992) points out, the imposition of development by external agencies as an unquestioned good not only disparages alternative values which its objects might espouse, but also produces ‘underdevelopment’, by serving as a reminder of what they are not. Conservation as an aspect of development can contribute to this effect, discrediting indigenous people and customary practice as primitive, and imposing scientific prescriptions that are at odds with their world-view.

5 ‘Its proponents,’ she adds, ‘are less free than their anthropological counterparts to make explicit the political contingencies on which the production of such knowledge frameworks depends’ (Green 2006: 111), a fact that is not lost on me as a research-based practitioner in a state that proscribes political activity for NGOs (Gilbert 2009). I explain my role as a practitioner in Chapter 3.
The links between development and conservation, particularly in a neoliberal system that commodifies nature through conservation-based ‘sustainable development’ projects (Escobar 1995; Brockington, Duffy & Igoe 2008) create a further interdisciplinary articulation; as do those between anthropology and environmentalism (Brosius 1999 & 2006; West, Igoe & Brockington 2006); and between anthropology and development (Cooper & Packard 1997, Mitchell 2002, Ferguson 2005, Green 2006). In what follows, then, I shall use political ecology as an overarching approach, aiming to benefit from ‘cross-fertilizations at the interstices of disciplines’ in this field (Gupta & Ferguson 1997: 5) in order to explore power relations in St Katherine, how the Bedu and others conceptualize and experience nature, and their relations with those who seek to control it and them. Try as I might I cannot fashion this bran-tub of ideas into a neat linear narrative: Marx’s disclaimer, with which this chapter opened, remains apt.

**Political ecology: supporting theory**

Brosius has characterized political ecology as ‘an enterprise concerned with understanding the ways in which the environment serves as a locus for the enactment and perpetuation of patterns of inequality’ (1999:280). Building on the work of Blaikie & Brookfield (1987) political ecology has generated four theses to typologize and explain causes and mechanisms of environmental change, differential access, conservation failures and social upheaval. All can be identified to some degree in St Katherine. They are: degradation and marginalization, which places the responsibility for ecological destruction usually assigned to poor local people (such as habitat loss due to ‘Bedouin overgrazing’) in its wider political context; environmental conflict, analyzing differential access to resources (such as water and medicinal plants) in terms of class, race or gender struggles; conservation and control, which highlights negative instrumental effects of conservation policy (eg increased access for security personnel to remote tribal lands); and environmental identity and social movements, in which pressure on livelihoods and environmental conflict are linked with identity struggles and resistance (Robbins 2004: 14).

As an approach, then, political ecology acknowledges that environmental issues have political causes that are amenable only to political solutions. Conservation theory, however, is generally devised and applied by natural scientists with a disciplinary emphasis on ‘the survival of non-human nature in landscapes’ (Adams & Hutton 2007); while ‘development’ is generally mandated to deliver technical, not political solutions to environmental problems. Ferguson (1994) documents the hopeless task of development practitioners striving to change agricultural and social practice in Lesotho. Their task had been framed in apolitical terms, but required political solutions they were not empowered to deliver. Development, Ferguson asserts, works as an ‘anti-politics machine’, removing from its prescriptions
whatever might offend a national government, or require government intervention to achieve. However, even while failing on its own terms, it can have instrumental effects with powerful political consequences: in Lesotho, the development programme established infrastructure which enabled government surveillance of a formerly troublesome area. The instrumental effects provide a rationale for governments to outsource governance responsibilities to development and/or conservation, as I shall suggest is the case in Egypt.

The four theses provided by political ecology are applied within a broader theoretical understanding that treats nature, place and narrative as ‘produced’. Political ecology is underpinned by post-structural social theory, in which types of knowledge are understood in their relation to systems of power. ‘Truth’ is socially and culturally constructed, rather than discovered already existing as a quality inherent in things (Peet & Watts 1996); ‘nature is constructed in the sense of being known through socially-conditioned minds’ (Bebbington 1996: 262). Robbins explains: ‘If Yellowstone is a wilderness it had to be made into one...Native American practice helped to produce the very conditions later Americans would covet as ‘natural’(2004: xvi). Political ecology concerns itself not only with the environmental practice of indigenous peoples, but also with the metaphorical production of nature and place by external actors (state officials, development practitioners or conservation scientists) who interact with them. Their constructions may inform prescribed conservation without regard for local environmental vision or practice (West, Igoe & Brockington 2006). Producing place in their own image and according to their own dominant narratives, external actors may both reinforce existing inequalities and create new ones. As a place St Katherine is a unique palimpsest of cultural, political and environmental activity. To understand bedouin responses to conservation I needed to examine how successive actors had contributed to its construction, and whose values and visions had emerged uppermost.

**Winners and losers in St Katherine**

Peet & Watts point to the Foucauldian concept of a ‘regime of truth’ controlling what is accepted as ‘true’ in each society (1996: 13). The question then arising is whose version of the truth will assume ascendency, and on what basis will some types of knowledge be privileged over others? Emphasizing the mutual reinforcement of power and knowledge, Ferguson & Gupta (2005: 105 -109) demonstrate how the notion of a ‘vertical topography of power’ in conjunction with ‘top-down’ and ‘bottom-up’ analogies with the human body can be used to assign attributes of ‘the higher functions... reason, control, regulation’ to states, while associating the ‘lower functions...irrationality, passions and uncontrollable appetites’ with society at large, the ‘lower orders’. They draw attention to ‘the social and imaginative processes through which state verticality is made effective and authoritative.’ Knowledge
produced by the holders of power at the top - whether the nation-state or the transnational actors whose interventions support its modernizing projects - will always trump local knowledge produced by those at the bottom.

In South Sinai the application of these hierarchies of power and knowledge is shot through with ideas of Otherness that leave the Bedu very firmly at ground level. As I have noted, one of the most visible aspects of life in South Sinai today is the Government of Egypt’s policy of encouraging settlement by Nile Valley Egyptians, who dominate tourist areas on the coast and who now form a majority in the ‘bedouin’ village of St Katherine itself. Although my analysis will not focus on this policy as a de facto neocolonial project, it is indeed ‘a transformative endeavour...engendered by longer historical developments and ways of narrating them...orientated toward...some kind of political transformation’ (Thomas 1994: 105). The rulers of Egypt have since the 19th century adopted a progressive, westernizing agenda, voluntarily embracing a sort of reverse Orientalism, a self-imposed modernizing project before the actual fact of colonization (Mitchell 1988). With their reliance on transforming desert ecology on a huge scale with piped Nile- or desalinated sea-water, today’s settlement and development policies are driven by a High Modernist approach as set out by Scott (1998: 95): one that ‘(sees) man’s destiny as to tame nature to suit his interests and preserve his safety’. Mitchell (2002: 21) describes another such project, the Aswan High Dam, as: ‘ rearrang[ing] the natural and social environment [as] a means to demonstrate the strength of the state as a techno-economic power.’ Narratives of such evolutionist progress are prevalent across all aspects of Egyptian governmental discourse today (Mitchell 2002). They are informed by what Stets & Biga (2003: 409) characterize as anthropocentrism, in which: “[t]he environment does not have intrinsic value; instead, it is a means to human ends.”

As I shall show in Chapter 8, the Bedu’s view of nature can be characterized as ecocentric: signifying that: ‘while human beings are valuable and unique, they are seen as one among many other species and objects...that are of worth’ (Stets & Biga 2003: 409). This approach assigns to them a place in the hierarchy that is very low down indeed. To the modernizing Egyptian state, then, Bedu are what Ferguson has called ‘the Third World within’ (1997: 150). Conceptualized as ‘Other’, ‘backward’ - even ‘an endangered species’ - (Hobbs 1995, Gardner 2000, Aziz 2000; Hobbs 1996: 5) Bedu are constructed as ripe for ‘development’. Ferguson (1994: 194) emphasizes that ‘governmentality’ – a key element in Foucauldian analysis – sees the state apparatus as ‘a neutral instrument for implementing plans’; for regulating ‘the conduct of conduct’ with the aim of ‘optimizing the life of the population as a whole’ (Inda: 2005:4). These apparently neutral forms of regulation may be carried out by other agencies (Inda 2005), and in South Sinai the state has outsourced many of its functions – regulatory and developmental - to conservation and its agents. Inda adds that
governmental power ‘seeks to mold conduct individually and collectively in order to safeguard the welfare of each and of all’ (2005: 6 – my emphasis). It is deeply ironic that in South Sinai, while development-as-conservation has sought to regulate the environmental conduct of the Bedu by invoking their own resource management system based on common welfare, development-as-modernization has introduced an individualistic consumerism completely at odds with bedouin norms, leading to social polarization that I document in Chapters 7 and 8. Meanwhile, development-as-securitization operates, arguably, to safeguard the many at the expense of the few.

Post-structuralist approaches seek to deconstruct dominant truth claims; that is, ‘those stories that hold a lock on the imaginations of the public, decision-makers, planners and scientists’ (Robbins 2004: 66). The dominant narratives employed by successive Protectorate management regimes have eclipsed the bedouin voice at multiple levels, even while claiming to value it: in the privileging of western over local environmentalisms (for example, the recommendation by ‘experts’ of conservation solutions from elsewhere with little local relevance\(^6\)); in the extraordinary appropriation of the Bedu’s own resource management techniques to ‘teach’ them how to protect their surroundings; and in the persistence of the ‘bedouin overgrazing’ narrative, portraying Bedu as recklessly destructive, which I examine in Chapter 6. Escobar articulates perfectly why the narratives of the poor are so often ignored, and they themselves held responsible for degradation: ‘Ecosystems analysts have discovered the ‘degrading’ activities of the poor, but have seldom recognized that such problems were rooted in development processes that displaced indigenous communities, disrupted people’s habitats and occupations, and forced many rural societies to increase their pressures on the environment. Now the poor are admonished ... for their ‘irrationality’ and lack of environmental consciousness’ (1996: 51).

*What conservation is ‘really about’*

‘[P]astoralists and their advocates need to know... what government planning is ‘really about,’” Aronson suggests (1980:174). In South Sinai the government says one thing and does another. While promoting conservation in legislation and literature, funding falls far short of what is needed to deliver its promises (Nature Conservation Sector [NCS]2006); and destructive commercial development continues unchecked. The Bedu observe that while they are subject to authoritarian control by the Protectorate in the interests of conservation, more powerful interest groups flout regulations with impunity. ‘Conservation as control’ in Katriin supports a reading of Protected Areas in South Sinai as an ‘anti-politics machine’ (Ferguson 1994), more effective in their (political) instrumental effects than their overt (apolitical) purpose; but it also speaks of the powerlessness of conservation policy to

\(^6\) eg Childs (2006)
The ultimate powerlessness of the conservation apparatus to protect the environment generates the final piece of the interpretive puzzle: the formation, or reinvention, of bedouin environmental identity.

Peet & Watts describe environmental imaginaries as ‘systems of meaning and representation which organize (people’s) natural worlds and establish ways people are socialized’, explaining that: ‘Natural environments...are main sources of the creation of their meaning systems, aesthetics and systems of thought. ... At stake... is nothing less than the way people understand their humanity’ (1996: 267-8). As I show in Chapter 8, Bedu make no separation between ‘nature’ and ‘culture’, and view themselves as an integral part of their natural surroundings. The neglect of nature by its official guardians - the conservation apparatus - can be read as a metaphorical equivalent of the state’s neglect of Bedu themselves, and is perceived as such by many. In order to differentiate themselves from an Egyptian government which they experience as an occupying power, Bedu have rediscovered an environmental identity rooted in core agro-pastoral livelihoods. The dramatic decline of those livelihoods since 1967 makes the adoption of this identity all the more clearly an act of resistance.

**Conclusion**

Closer contact with life in St Katherine, then, made me appreciate that power relations were the principal thread in the Gordian knot I had set myself to unravel. An approach grounded in political ecology appeared best suited to my task, enabling me to take account of the ‘nested’ levels - local, national and international - of actors involved in it, and to interrogate the dominant truth-claims dictating the conservation policy that threw up such glaring contradictions.

In what follows I aim to present both contextual material and my own data through this lens. I start in Chapter 2 by reviewing literature on nomadic pastoralists in the Middle East and North Africa and locating Bedu among them, reviewing bedouin livelihood strategies and relations with states, and touching on key aspects of culture and identity, while retaining the focus on power relations outlined here.
Chapter 2

Literature Review

2.1: Nomadic pastoralists, Bedu and states

In Part 1 of this chapter I describe Bedu in the Middle East and North Africa as they appear in the literature, contextualizing their experience as nomadic pastoralists. I examine bedouin social and cultural traditions, and the extent of their integration with the states of which they are citizens.

In Part 2, I move on to discuss South Sinai Bedu, focusing in particular on the Jebeliya in St Katherine Protectorate and the livelihoods they commonly practised prior to the onset of ‘development’. Although the great majority are now settled, this has happened within a generation: prior to that, seasonal migration entailed constant mobility, albeit over much smaller distances than Arabian camel-herding tribes due to the limited physical capacity of their small black goats. Nonetheless, many South Sinai Bedu - as I shall show - retain the idea of mobile pastoralism as central to bedouin identity today.

2.1.1: Nomadic pastoralism

Emanuel Marx (2006: 93) offers a ‘minimalist formulation’ of nomadic pastoralism: ‘Pastoral nomads are groups for whom the mobile production of animals and animal products is a significant way of making a living’; while others (eg Galaty & Bonte 1980) stress the complexity of the political, economic and cultural facets of this subsistence system. The distinction between nomadism as a form of spatial organization, and pastoralism as a form of economic organization, is marked by Chatty (1980: 82); however, whilst Chatty shows that pastoralism need not involve mobility, it frequently does so as a strategy for minimizing risk: increasing security by forging social alliances that provide access to seasonal pasture, as well as trading opportunities across ecological and political zones (Galaty & Johnson 1990: 20 –21).

In the past quarter-century nomadic pastoralism has increasingly excited the interest of scholars from a range of disciplines. The Dyson-Hudsons’ 1980 review covered 160 studies. By 1997, Fratkin was able to review some 600 pieces of literature from the previous ten years investigating pastoral production in Africa, the Middle East, Central Asia, Mongolia, highland Tibet and the Andes, and arctic Scandinavia and Siberia (1997: 235-6). Whilst mobile pastoralism shares some common features in the variety of political and ecological situations in which it is practised, modern commentators are clear that each occurrence represents an adaptive, contingent response to a range of local conditions (Dyson-Hudsons 1980; Salzman 1980; Aronson 1980; Galaty & Johnson 1990; Rasmussen 1993; Fratkin
1997; Chatty 2006). I restrict this initial overview to Africa and the Middle East, the arena in which my own study is located. Nonetheless I shall start by describing features common to nomadic pastoralism wherever it is practised.

Societies recognized as pastoralist are those which depend for a significant proportion of their subsistence on livestock and its products: meat, milk and dairy products, wool and woven textiles and hides, for example. The utilization of marginal land enables nomadic pastoralists to extract value from areas unusable by settled agriculturalists, providing products for subsistence, exchange or trade. Nomadic pastoral societies worldwide have evolved similar patterns of husbandry, land use and rights, tribal organization, division of labour, and social structure; whilst commonly sharing key aspects of culture – language, religion, social organization – with the settled peoples in their own region (Rasmussen 1993; Galaty 1996; Galaty & Johnson 1990; Marx 2006).

The sheer diversity of peoples, ecologies and places in which nomadic pastoralism is and has been practised means that most general principles associated with it are open to qualification in local circumstance. In different ecological settings, for example, different types of livestock predominate. These ‘dominant’ species may serve wider symbolic or social purposes, as ‘measures of value, objects of investment, metaphors for conceptualizing the social world, and tropes for expressing group identity’ (Galaty 1996: 415; see also Evans-Pritchard 1940; Bonte 1991; Comaroffs 1991; Ferguson 1994 for sub-Saharan African examples). In the Middle Eastern settings with which I am concerned, although sheep and goats have been associated with humans for longer, it is the camel that has generally assumed primary symbolic value for pastoralists (Lancasters 1990: 178).

Much recent literature on mobile livestock production is critical of earlier approaches. Evans-Pritchard’s study of the Nuer (1940) and the British structural-functionalism school have been allotted responsibility for generating essentialized ideas about pastoralists as unchanging, isolated, tribal societies depending solely on their livestock for subsistence (Dyson-Hudsons 1980: 15-16). The enduring power of what Chatty calls this ‘noble savage’ construction (2006: 2), rooted in 19th century romanticism and grounded in colonialism, might be gauged by the scale of the enterprise devoted to discrediting it. Galaty & Bonte tackle persistent views of herding societies as not being specialized or market-linked; as self-sufficient rather than interdependent; static, not dynamic; restricted by, rather than adapted to, arid-land ecology; and insensitive to the environment rather than careful managers of scarce resources (1991: 4-6). Each of these points, Marx notes, has been refuted by students of Middle Eastern pastoralists (2006: 79-81). Recent scholarship is careful to avoid applying

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7 One exception are the Ma3za Bedu of Egypt’s Eastern Desert (‘The Goat People’) for whom goats are reported by Hobbs to have enormous cultural as well as practical value (Hobbs 1989: 34)
static models to dynamic social settings; but instead to recognize the contingent nature of the various strategies people have devised for making nomadic pastoralism work in their own social, environmental and political contexts.

If scholars have refuted typological descriptions of what pastoralists are like, they are nonetheless broadly in agreement about what they generally do. As Aronson summarizes:

‘First, pastoralists are nearly all engaged in multi-resource economies (Salzman 1971), and at least some of those.. are in fixed locations. Second, pastoralists move because they have to, not because they love to. Third, pastoralists’ economic strategies are geared not just for current production, but for the long-term security of that production. Fourth, their production strategies are designed to optimize a number of goals, not merely economic ones. Fifth, the ownership and management of pastoral herds may be in quite different hands.. Sixth, pastoralists ab initio are vigilant to changes in their environment, and respond to them quickly.’ (1980: 174).

In other words pastoral nomads are active agents in adopting economic and political strategies, as well as ecological ones, to negotiate their environments successfully. I shall touch on key features of those strategies below.

Ecological strategies

As noted above, mobility is not a necessary condition of pastoralism, and many people raise livestock in semi-nomadic or largely sedentary settings (Dyson-Hudsons 1980: 31; Salzman 1980; Chatty 1980; Galaty & Johnson 1990; Lancasters 1990: 178; Abu Lughod 1993; Fratkin 1997; Obeid 2006). However, in order to maximize resources, many pastoral peoples have practised transhumance: a seasonal cycle of moving flocks between areas of vegetation with different phenologies. This tactic has enabled nomads to extract benefit from marginal territory unsuitable for agriculture, converting sparse vegetation to animal protein for human consumption and use (Dyson-Hudsons 1980: 34-35; Galaty & Johnson 1990). Seasonal movement of livestock provides access to larger areas of pasture, increasing nourishment per animal and allowing for larger, more productive herd sizes than does sedentary husbandry in dry areas (Galaty & Johnson 1990: 17; Salzman 1996: 553). Commonly, seasonally-available pasture may also coincide with more favourable climatic conditions, enabling people to spend winters at warmer low altitudes, while retreating to spend hot summers pasturing their flocks in cooler mountainous regions.

Nassef et al (2009: 5) indicate that pastoralists who remain mobile and keep more animals are better-off than those who settle and have to keep fewer. While the local ecology of regions with higher rainfall permits settled, more intensive and productive farming, arid lands can sustain fewer animals in a given area. This accounts for historical and well-documented resource management practices that place restrictions on grazing at different times of year and exact stern penalties for infringement (Perevolotsky et al 1989; Hobbs
1989; Shoup 1990; Chatty & Colchester 2002; Bocco 2006). Despite these practices, the common assumption by governments and conservationists has been that pastoralists degrade the environment by reckless overgrazing (see, for example, Chatty 2006). I discuss this assumption below and in Chapter 6.

To summarize, then, pastoralists in desert regions have traditionally maintained larger flocks but pastured them over a wider area than sedentary farmers. The resultant investment of time and wealth has made them generally, but not universally, more dependent on livestock for subsistence than on other livelihoods. By consuming ‘revenue’ (milk, blood) rather than ‘capital’ (meat from slaughtered animals), pastoralists have aimed to pursue what Galaty calls an ‘optimal’ strategy: investing enough effort in production to sustain life in marginal areas, while restricting effort expended on cultivation and trade. Spatial mobility has provided the flexibility needed by nomadic people to engage in a diverse, multi-resource economy: one based on subsistence herding combined with specialized occupations, and trading of the resulting products for commodities they cannot themselves produce (Salzman 1996:397; Marx 2006: 79; Galaty 1996: 415).

Socio-economic strategies

The Dyson-Hudsons argue that ‘it is inadequate to interpret pastoralist spatial and social behaviour as adaptive responses to specific features of the natural environment’ alone without reference to ‘the complex social relationships’ that help to organize behaviour (1980: 25, 51). These relationships extend to building alliances with neighbours, nomadic or settled, through trade or marriage; to permit access to pasture; travelling rights over land, or the adoption of new living arrangements in response to political or ecological change (Hobbs 1989 103-4; Galaty & Bonte 1991; Johnson 1991; Chatty & Colchester 2002; Marx 1980, 2003, 2006).

As an economic strategy, pastoralism may be pursued as a specialization, as a matter of preference or to minimize risk, not purely for want of subsistence alternatives. The exercise of individual choice to diversify livelihoods creates what Greenwood (1997) has called ‘an economy of opportunism’. Alternative or supplementary livelihoods have been generated by interventions as varied as invasion by armies (of both troops and tourists), donor-aided conservation and ecotourism initiatives, extractive industries, and large scale construction and infrastructure projects. Members of nomadic societies whether male or female, sedentarized or not, can be (and usually are) ‘full participants in a complex city-based market economy, especially in so far as they....produce labour-intensive commodities such as meat, milk, wool and hides, which are readily sold in cities’ (Marx 2003:1).
These activities do not signal the permanent replacement of pastoralist livelihoods, but the taking of opportunities for other forms of economic participation as they arise. Indeed, much of the work cited above emphasizes the cyclical nature of shifting livelihood choices. A move to sedentarization and change is not approached by mobile peoples in westernized terms as a linear progression, with each step leading irrevocably from ‘tradition’ towards ‘modernity’, but as a contingency plan which may be reversed if the need arises (Salzman 1980: 6-7). Traditional livelihoods are regularly kept in reserve by pastoralists, a few animals retained - often cared for by women - as an insurance policy if other opportunities fail (Gardner 2000, Marx 1980, 2006).

As men leave for extended periods to take up migrant labour opportunities, women may assume their roles in husbandry and other functions outside the domestic sphere (Abu-Lughod 1990; Lavie 1990; Rasmussen 1993), sometimes resenting the return of their men and the subsequent curtailment of their temporary independence (Marx 2003). Other changes, such as the introduction of motorized transport to replace the camel, may deskill women and deprive them of freedom to move and socialize (Chatty 1980; Lancasters 1990). In societies where herding is done by unmarried girls, older women regularly lament the lost freedom of movement of their youth (Lavie 1990). The Dyson-Hudsons (1980: 20 - 22), Lewando-Hundt (1984) and Rasmussen (1993) ascribe a variety of valued roles to women, in animal husbandry, processing produce from the herds, and, once past working age, in freeing working-age women for productive tasks by caring for young children. Dawn Chatty emphasizes that among Al-Fadl and Al-Hassana Bedu, women’s activities are seen as complementary to men’s, not subordinate (Chatty 1980:84-85).

*Political strategies*

Internal political organization among nomadic pastoralists is commonly tribal. Salzman (1996: 398) points out that nomadic people normally move within a customary territory that they know well and to which they can lay political claim, territorial control being one of the main functions of the tribe. Geographical dispersal and the absence of physically-centralized authority creates the need for autonomous decision-making among scattered mobile groups. Local autonomy is facilitated by tribal segmentary lineage systems, in which groups, as they segment, stand in balanced opposition to one another with no structural centralized leadership.

The mobility of nomads has shaped both their internal political organization and external political relations. In the Middle East and North Africa successive colonizers, invaders and administrators have sought to co-opt bedouin leaders as intermediaries, with negative implications for their internal authority (Glassner 1982; Rabinowitz 1983; Peters 1990; Lavie 1990). In their relations with states, evasion of control has provided an incentive for some
pastoralists to prefer a mobile way of life: whether to escape taxation, conscription or authoritarianism, mobility can be ‘a political response to centralized authority, a means of avoiding domination by settled governments’ (Lancasters 1990: 178).

In summary, numerous commentators have investigated interpretations of pastoral nomadism as ecologically bounded and subsistence-driven, its practitioners independent of settled societies, and have found them to be wanting. Nomadic pastoralists have been shown to adopt ecological, socio-economic and political strategies in order to pursue a way of life that combines the raising and movement of livestock with a range of other livelihoods. The major trends in pastoralism today have been identified by Galaty & Bonte (1991: 269) as including a shift towards ‘increasing commercialization.. greater conflict with nature.. diminished autonomy.. encapsulation by regional administration.. and increasing social differentiation and inequalities in wealth.’. In what follows I move from reviewing general aspects of nomadic pastoralism to considering the way these trends affect Bedu as a specific group of mobile pastoralists. I go on to review the reported effects of near-universal attempts by states to modernize and settle Bedu, and examine their impact on bedouin-state relations in the Middle East.

2.1.2: Bedu in the Middle East and North Africa: dynamic traditions

Bedouin life: building blocks

There are features of bedouin life which have historically been found in some form wherever people have identified themselves as Bedu. These aspects of ‘core Bedouin social and cultural organization’ (Chatty 2006: 6) can be summarized as: livelihoods based primarily on nomadic pastoralism; tribal social organization supporting strong kinship networks; and value systems based on ideas of honour, strongly upheld by customary law.

Al bedu rahhalin (Bedu are nomads)

A way of life based on nomadic or semi-nomadic pastoralism is the most obvious defining feature of Bedu (Sinai pearl-fishers and Iraqi marsh-dwellers notwithstanding [Bartheel 1943; Thesiger 1964]). The majority of Bedu have primarily constructed their lives around the need of their flocks for pasture, moving either seasonally or more frequently between grazing and watering locations, and living typically in easily dismantled tents woven by women using wool from their flocks. Types of livestock and animal husbandry practice have differed from place to place, with camels being the principal herd animal in much of the

8 Lavie (1990:Ch 5)
Arabian Peninsula, while sheep and goats predominate in mountainous regions (Perevolotsky 1989; Shkolnik 1972).

An Awlaad Sa3iid man I spoke with in a remote area of South Sinai told me simply: ‘Herding is the Bedu’s life.’ The distinction between bedu and hadar - the nomad versus the settled farmer - is a key component in the formation of bedouin identity (Fabietti 2006: 593), and is known to stem from pre-Islamic times (Bamyeh 2006: 33). However, the superiority persistently ascribed by Bedu to themselves as herders in comparison with farmers - disdainfully referred to as fellahin - peasants - (Hobbs 1989: 24) may derive from an Islamic connotation ascribed to herding by its etymology. Marx points out (1967:53) that Bedu distinguish between three different types of wealth: milk (or more commonly m`ulk), landed property that only the owner is allowed to cultivate; mal, capital or cash income; and halal, which covers all livestock. Halal is the term used to denote acceptability or purity in Islam, and Marx suggests that ‘the use of this term by the Bedouin implies that pastoralism is an honourable and prestigious occupation, so that where ecological conditions are equally favourable to both farming and herding, he will often prefer the latter’.

While herding practice and division of labour varies between regions, some principles are common. Camels are generally raised and managed by men, whereas women take charge of smaller animals, not only feeding and taking flocks to pasture but also treating them when they are sick (in Sinai my respondents - both men and women - used medicinal plants and traditional fire treatments, a practice I have not found documented elsewhere in relation to livestock). Women may also own small animals (Hobbs 1996; Zalat & Gilbert 2008), dealing with produce and often disposing independently of the proceeds from sales.

To the multiple supplementary activities embraced by nomadic pastoralists in general, an overview of Bedu must add ghazu, or raiding, regulated by customary law, as a former means of territorial and property extension (Bamyeh 2006: 34-35). In the twentieth century, smuggling of opium and hashish also became important for Bedu close to routes running from production centres in Anatolia and the Bekaa Valley to markets in Cairo and beyond (Lavie 1990; Hobbs 1998; Marx 1999,2003; Lancasters 2006). I return below and in Chapter 7 to the vexed relationship of Bedu and drugs.

Tribes, equality and leadership

By the time of the Prophet’s death in 632 CE, desert peoples in Egypt had differentiated into African and Arab groups according to the descent system they adopted: matrilineal for the Beja ‘Ababda and Bishariin groups, and a patrilineal segmentary lineage system adopted by Bedu of Arab origin (Murray 1935: Ch 1). Abu Rabi’a (2006: 865) summarizes the social

3 Interview 80: 08/08/08
structure of the Bedouin tribe: ‘in ascending order of hierarchy...the nuclear family, the extended family, the sub-tribe, the tribe and the clan. The traditional Bedouin family was patrilocal, patrilineal, patriarchal, endogamous, and occasionally polygamous.’ I do not propose to explore here the mechanics of Bedouin kinship and marriage systems: Marx (1967), Peters (1990) and Bonte (2006), among others, have done so in detail for tribes in the Negev, Cyrenaica and Western Sahara respectively; Lavie (1990) and Abu-Lughod (1993) have described their effects ethnographically for the Mzeina in South Sinai and the Awlaad ‘Ali on the north Egyptian coast.

Tribes and their subdivisions are labelled differently almost everywhere they occur, often using the same names in Arabic to designate different sub-sets, and almost invariably translated differently by commentators. Stewart (2006: 239) notes that he uses the term ‘tribe’ ‘in the way that it is usually used - that is to say, without attempting to define it, and with little regard to consistency’. This welter of terms creates substantial confusion for the reader. I explain my own usage, following that of my interviewees, in Part 2 below.

I touched above on the acephalous structure and consequent egalitarianism traditionally attributed to tribal societies. In a defence of a concept he sees as under attack from ‘revisionists’, Salzman (1999:35) quotes classic anthropological studies to support the contention that segmentary lineage systems (ie those organized around collective, lineage-based responsibility) are fundamentally egalitarian: that they ‘institutionalize decentralization and wide distribution of the instruments and organization of coercion, the rights of movement and association, equality of status, and individualistic and democratic decision-making.’ Coupled with the impermanence of livestock-based wealth, the common holding of land and natural resources, and mobility permitting freedom from state control, Salzman argues, pastoralist societies occupy a continuum which at one end (increasing with sedentarization and state control) may embrace social inequality, but at the other demonstrates structural and political equality even where economic stratification exists. This conclusion is challenged in response to Salzman’s review by contemporary scholars pointing out - *inter alia* - that the extreme variability of pastoralist societies makes generalization meaningless (Bonte); that the analysis ignores levels and spheres of social stratification, notably issues of gender (Casimir & Rao); that ‘egalitarianism’ is not a given or even a necessary component of pastoralism (Fratkin); and that great discrepancies of wealth and power exist within pastoralist societies (Marx) (all in Salzman 1999). Marx (1967) explains the basis of the claim as applied to Bedu. Quoting Fortes (1959: 206) he defines tribal sections and co-liable groups as corporate - ie closed - descent groups, ‘that

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10 In particular, Evans-Pritchard’s studies of the Nuer and Senussi from the 1940s and 50s.
11 Bailey cites 73 proverbs devoted to the concept that: ‘Brothers share benefits and supporters where there is trouble’ (2004: 132).
exist to unite persons for common social purposes and interests [for example defence, of property or honour] by identifying them exclusively and unequivocally with one another. Equality is said to apply to the group’s internal constitution, with each member being viewed as equal in a formal, legal and ideological sense; and externally, with group members ‘jurally equal’ to outsiders (Marx 1967: 181). However, whilst there is no formal structure in this schema permitting social differentiation or leadership, Bedouin groups frequently have leaders, Marx notes, and there is always internal differentiation of status; the ideology of equality is maintained only with reference to the group’s express purposes. Even there, he explains, actual practice frequently diverges from the ideal, with the support a member receives from his group determined less by the rules than by his internal political and economic networks.

Bonte (2006: 98) surveys the degree to which equality is realized among tribes of the Western Sahara, reporting substantial variation. Peters (1990:114 -120) explains that the Bedu of Cyrenaica had no formal system of social stratification: the ‘general uniformity’ of people’s condition reinforced a sense of equality between individuals (by which, of course, he understood men, issues of gender equality being absent from earlier analyses). Nonetheless, leaders did emerge – not through opportunism, heredity, personal charisma, or colonial co-option as Evans-Pritchard had claimed\textsuperscript{12}; but through ‘an astute accumulation of material goods.... networking of relationships and obligations, and their purposeful application throughout many years’. In Awlaad ‘Ali society, in Abu-Lughod’s (1985: 251) analysis, status distinctions were established by demonstrating a set of moral virtues conforming to an honour code; social privilege being earned by individuals who best embodied honour-linked ideals. Marx (1967: 62) notes that in the Negev, a sheikh, or tribal leader, was elected by his tribe but had to be confirmed in office by state authorities.

The perception of bedouin society as acephalous and egalitarian appears, then, to be ‘neither adequate nor completely false’ (Galaty & Bonte 1991:269). Egalitarianism is enshrined as an ideal but flawed in execution and widely challenged as a concept. Leaders - sheikhs - emerge by different means: internal election, external appointment, and ad hoc emergence through their social skills and values (Glassner 1974; Rabinowitz 1983; Lavie 1990; Peters 1990). There is little consensus among anthropologists or Bedu about how a man becomes a sheikh, nor by what authority he maintains leadership.

Honour in law and poetry

Concepts of honour and its defence are defining aspects of bedouin identity. Abu-Lughod focuses on honour defined in personal expression and conduct: what she calls a ‘discourse

\textsuperscript{12} Unlike Salzman, Peters has little time for Evans-Pritchard (whose 1949 study of the Senussi also dealt with Cyrenaica).
of honour’. The ideal person among the Awlaad ‘Ali is: ‘the real man’, the apogee of control, who manifests his independence in his freedom from control by others...demonstrated through self-mastery.. (physical and emotional), active responses to slights or injuries, and the willing assumption of responsibility for upholding the social order’. Importantly, she adds: ‘These ideal characteristics are valued by all Bedouins and associated with themselves as a cultural group in contrast to others, specifically the Egyptians of the Nile Valley who serve as a conceptual foil for their collective self-definition’ (1985: 251, my emphasis). In Chapter 8 I will explore how South Sinai Bedu shape their conception of themselves in just this way.

Bailey (2010) and Stewart (2006: 268) outline the sophisticated system of customary law, known to the Bedu as 3urf, by which honour - sharaf for men, 3ard for women - is upheld, and which in some bedouin communities, he notes, regulates almost every aspect of life. Bedu living as citizens of nation-states are subject to customary law, national law and, in many cases, shari3’ law. While Dupret (2006:288) illustrates how Yemen has incorporated aspects of bedouin law into its own legal system, in general, customary law is the preferred and often the only channel for dealing with matters of honour, generally characterized (along with its adjudicating judges, or agid) by the term manshad (Bailey 2010: 162). Honour may be a matter of ‘face’ (wish) upheld through the successful undertaking of an activity to which parties are committed; deep dishonour is incurred by failure to deliver such a commitment, especially where protection of a weaker party or female chastity are involved. Bedu are of course hardly unique in the Islamic world in using female chastity as a measure of male honour (for very different examples from a vast literature see Mernissi 1975, ‘Atiya 1984, Rose 2009). However, the orchard-growing Jebeliya in South Sinai are unusual in attributing the honour-properties of a woman to their gardens: unauthorized entry into an enclosed garden is equated with rape and attracts equivalent penalties (Hobbs 1996: 184; Zalat & Gilbert 2008:43).

Penalties exacted by customary courts for offences against honour - including interference with a ward, harming of a protégé, or having wrongfully ‘blackened’ a plaintiff – are often harsher than those resulting from physical assault. Stewart (2006: 265) and Bailey (2010: 166) also mention trial by ordeal in the case of a party accused of falsehood without

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13 Classically 3ird.
14 A Tarabiin man I interviewed (76: 11/05/07) swore that no Bedu would ever receive justice from the Egyptian legal system. Several people told me about legal actions they had lost in the Egyptian courts; no-one ever described to me a successful action by a Bedu (though for an account of a successful extra-legal action see Chrostowski 2002).
15 Classically wajh
16 Taswiz: publicly to impugn a man’s honour (also, as a penalty, to announce that a defendant has been found against). This is a matter of the greatest gravity, and is current, though rare, in South Sinai - as is the bisha’a (Mohammed Khedr, pers comm).
witnesses, the *bisha’a or telhass el nar* system, in which a man must lick a flat implement heated on hot coals; if his tongue is uninjured he is held to have told the truth.

The centrality of honour is most clearly demonstrated by blood-revenge. A co-liable group of five generations of agnates (known as a *khamsa* or ‘five’) are held collectively responsible for a murder committed by any of them. In Sinai ten or fifteen men may constitute a *khamsa*; elsewhere they may involve hundreds (Peters 1990; Stewart 2006). Revenge may be exacted at any time against any one of them by the victim’s family (Ginat 1984; Peters 1990 Ch 4; Stewart 2006; Dupret 2006). In the past this could lead to feuds (*tha’r*) lasting for generations and involving many retaliatory deaths. Murder may also be avenged, or a feud settled, by the payment of *diya*, or blood money. In the past this money was in some cases supplemented by handing over the closest unmarried female relative of the murderer to the closest male relative of the victim: once she had produced a son (to ‘replace’ the murdered man) he might either marry her or return her to her father’s tent (Ginat 1984: 62).

Lila Abu-Lughod (1985) has shown how ‘Awlaad ‘Ali differentiated the expression of sentiments of honour in public and private discourse. Public discourse was designed to demonstrate qualities of independence and autonomy; but by revealing their vulnerability to their intimates through poetry, women in particular might earn respect by showing the depth of the emotion they had mastered in order to remain self-controlled in public. No general overview of Bedu can omit to comment on the quality of their oral poetic culture. Bailey (2002, 2004) has documented bedouin poetic response to historical events and modern life, transcribing poems, songs and rhyming proverbs sometimes directly from their composers, sometimes as recited from memory after decades or more. Abu-Lughod focuses rather on the intimate, spontaneous compositions of women to express their deepest feelings. I have been continually struck by this spontaneity, the composition of poetry, and participation in recitation and singing of verse. Lavie recounts (and Bailey illustrates [2010: 180 ff]) how in South Sinai as recently as the 1970s and 1980s: ‘in 3urfi trials the disputant men or their representatives presented their most important arguments to the judge and audience in improvised rhymed poetry...’ (1990: 175).

Ghadeer insists (2006: 997) that *topoi* and phrasing found in contemporary Arabian bedouin women’s oral poetry can be traced to the pre-Islamic period, powerfully suggesting both the enduring nature of poetic form and the centrality of honour-based content in bedouin life. The quality and

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17 Once the youngest member of the newest generation reaches twelve, he replaces the eldest member of the oldest generation (Mohammed Khedr, pers comm, corroborated by Bailey 2004:137: ‘As soon as a child is named, he extricates you’).

18 This no longer happens in South Sinai (Mohammed Khedr, pers comm).

19 Exercising this skill is not confined to the courts: my husband and I were vastly entertained when a Jebeliya driver filled a 200 km journey by improvising rhymed songs about us.
sophistication of their poetry and law provide an insight into the antiquity and creativity of bedouin culture, and begin to explain the tenacity with which Bedu continue to identify themselves as such even while adapting their lives to modernization.

2.1.3: Bedu in the Middle East: state-imposed ‘development’

Cooper & Packard (1997:4) comment on the ‘marvellous ambiguity’ of the word ‘development’ which unites in a single concept ideas of economic growth and human wellbeing. They note that: ‘What on one level appears like a discourse of control is at another a discourse of entitlement’. In this section I consider sedentarization and ‘development’ as tools of modernizing states and what these have meant for Bedu.

Pastoralism, constructed as rooted in a primitive, pre-agricultural past, affronts linear narratives of ‘progress’ and ‘modernity’ adopted by many states (Scott 1998; Ferguson 1999). It is viewed always as a subject, never a means of ‘development’. Colonialist ideas of the backwardness of nomadic peoples were transmitted unchallenged to the post-WWII international development agencies and institutions (Chatty 2006: 1). Additionally, central governments tend to perceive Bedu and other non-sedentary populations as ‘states within a state’, a de facto problem area (Chatty 1980:80). As Aronson summarizes, while ‘[o]stensibly committed by their own recent policies to raising the standards of living of the world’s poorest and/or most marginal peoples, agents of change have tended instead to succumb to the least informed images of pastoral nomads’ (1980: 173).

The success of adaptive strategies to encourage or enforce bedouin participation in ‘mainstream society’ has depended largely on the approach of their respective governments. Marx notes: ‘Pastoralists are often treated as second-class citizens, and do not receive the full range of services provided by the state. In order...to make their own lives easier, the authorities often abdicate their civil responsibilities’ (Marx 2006:11). Whilst governments may overtly apply the principle that ‘existing pastoral producers are citizens of their countries like other citizens... even governments that are well-disposed to pastoralists can justify with difficulty the higher per capita expenditures...necessary to provide services to that small minority of the population’ (Aronson 1980:180). This is the more so when there remains among the settled populations of ostensibly democratic states a problem with assimilating Bedu into the national identity; what Altorki & Cole describe in Egypt as ‘a lingering sense that the Bedouin are not really Egyptian’ (2006:16, my emphasis).

This concern generates opposing approaches in different areas. Acknowledgement of Bedu as a problem group may result in their direct exclusion, as in Kuwait: a denial of citizenship and identity that leaves some Bedouin literally bidoun (‘without’) (Chatty 2006: 9). On the other hand, the common failure in the Middle East to categorize Bedu as either an ethnic
group for census purposes, or as a specific occupational group on national identity cards or passports, results in failure to acknowledge them as a group with specific needs, as happens in Egypt.\textsuperscript{20} What Chatty describes as ‘official government, and – apparently – international blindness or disinterest in identifying Bedouin’ (Chatty 2006: 7) results in many Bedu lacking legitimate channels for voicing or realising their needs, fears or aspirations as Bedu. Lawful resistance, or assertion of legitimate rights and entitlements by pastoralist groups and their advocates, is often hampered by weak or absent political representation\textsuperscript{21} (Nassef et al 2009: 7; Greenspan 2007; Sowers 2007), or by a failure to grasp ‘what government planning is ‘really about’’ (Aronson 1980: 174).

As a result, many Bedu feel that the state-citizen contract is inadequately fulfilled by their governments. The Lancasters (2006: 341) quote Rwala and Ahl al-Jabal complaining that customary law was fairer: ‘You agreed to pay first and you got protection in return. If they didn’t protect you, then you didn’t pay next time or you got your money back...But with state taxes, there is no option; if you don’t pay, your water and electricity are cut off. And with state borders and nationality, there is nowhere [else] to move to.’

In order to absorb Bedu into society, governments across the region have adopted strategies ranging from coerced settlement, dispossession and detribalization in the Negev (Jakubowska 2000; Marx 1967, 2000; Abu Rabi’a 2000,2006) and Syria (Chatty 2003; Lancasters 2006),\textsuperscript{22} to more neutral policies of benign neglect in Saudi Arabia (Chatty 1980, Lancasters 2006, Cole 2006), and more intentionally developmental approaches such as those in Jordan and Oman (Chatty 2000; Chatelard 2006; Lancasters 1990, 2006). These government-led settlement efforts cannot be interpreted as politically-neutral schemes for the provision of services, but ‘arise from primarily political concerns which are cloaked in a social or economic idiom’ (Chatty 1980: 81).

According to Nassef et al (2009:v,1-4), pastoralism makes a valuable contribution to the economy of regions where it is practised. However, this view has little currency with governments concerned to improve and modernize Bedu by transmuting them into model citizens: ‘enthusiastic or productive workers... accustomed to regular work for wages and acquiring the attitudes, skills, and habits valued by an industrial society’, as Glassner (1974:59) describes Israeli intentions in Sinai.

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\textsuperscript{20} Chatty also notes (2006: 7) that Bedu are not identified in the Arab Human Development Report (HDR)(UNDP 2002). I have written elsewhere about the invisibility of Bedu in the Egypt HDR (UNDP 2005), and the resulting neglect of their concerns (Gilbert 2009), which I discuss in Chapter 8.

\textsuperscript{21} Until as recently as 2007, according to my informants, the City Council in Katriin was appointed by the Governorate; the Bedu played no part in electing local representatives.

\textsuperscript{22} Modernization and settlement policies have had a disproportionately negative impact on women: many of the studies I cite show how women face stricter segregation and curtailed movement once families settle in more densely populated areas, increasing the likelihood of their meeting male strangers. I have seen at first hand the mental and physical health impacts of this restriction on women in Katriin.
Paradoxically, far from rehabilitating Bedu in the eyes of their ‘civilized’ fellow citizens, the near-universal settlement projects of modern governments have reinforced the myth of pastoralists as destroyers of the environment. Although, as Nassef et al (2009) point out, degradation is more evident in settled areas than in open rangelands where mobile herding allows pasture to regenerate, the myth of bedouin overgrazing has become an unchallenged assumption in the Middle East (Sharkas 2001; Moustafa 2001; Chatty & Colchester 2002; Abu-Rabia 2002; Chatty 2003, 2006; Mabrouk 2006; Manski 2007). In Chapter 6 I investigate how this dominant narrative has played out in St Katherine. Politically-driven sedentarization and insensitive conservation approaches have led to ecological impacts for which Bedu, rather than the governments who initiate the measures, have commonly been held responsible (see Chatty 2002; Abu-Rabia 2002; Rae et al 2002; Chatty 2003, Paleczny et al 2007). The ‘tragedy of the commons’ theory (Hardin 1968) has been invoked to justify measures from the privatization of land and commercialization of livestock production (Fratkin 1997: 241), to calls for Bedu to be ‘educated’ in the very conservation techniques they have themselves applied since pre-Islamic times (Chatty 2002; SKPMU 2003, ‘Abd el Baset 2005). This education is generally held to be either the province of conservationists shipped in from ‘the West’ and imbued with myths of pastoralist destructiveness (Chatty 2002, 2006); or of elite groups, headquartered in national capitals and schooled in western scientific approaches, who may have little understanding of local environments (Chatty & Colchester 2002; Chatty 2002; Hobbs 1996). Far from achieving desired conservation outcomes, ill-informed interventions have damaged both local ecologies and Bedu-state relations (Chatty 2003, 2006).

Conservation prescriptions too often provide technical, ‘anti-political’ solutions to very political problems, offering analogies with Ferguson’s (1994) analysis of development interventions in Lesotho. Focussing on Bedu as agents of environmental damage has enabled governments to downplay what Chatty and Colchester (2002: 1) define as the underlying causes of environmental destruction: ‘social injustice, the lack of secure land tenure, the enclosure of the commons, consumerism, the rise of corporations, global trade, and government collusion or indifference.’ They describe how indigenous peoples have come to understand conservation and development as ‘two sides of the same coin... top-down impositions which deny their prior rights to land and devalue their indigenous knowledge and systems of land use’ (2002: 6). Across the Middle East (but notably in Israel, Syria and Oman), in the name of conservation Bedu have experienced detribalization, displacement and dispossession, disregard of pastoralists’ practice and needs, and exclusion from pasturelands, provoking both suffering and protest (Abu Rabia 2002; Chatty 2002, 2003).
While advances in education and self-integration have been described by some scholars (for example Chatty [1980] in Lebanon and [2000] in Oman; Cole [2006] in Saudi Arabia), these accounts seem to represent exceptions in bedouin experience, rather than the rule. Jakubowska (2002: 4) notes that ‘...purposeful manipulation, promises made but never kept, and undelivered assurances were all part of Bedouin experience in the history of their relationship with the (Israeli) State.’ Few Bedu, it seems, fare well at the hands of modern states.

2.2 : South Sinai Bedu

Whilst the purpose of my research is to explore the impacts of modernization on Bedu in South Sinai, there is a broad consensus - from sources as disparate as Marx writing in 1967 and CNN news broadcast in 2006\(^{23}\) - that core elements of bedouin culture and livelihoods have changed less in South Sinai than elsewhere. Emphasizing their conservatism compared to related tribes and groups in the Negev, Marx (1967: 5) comments that Negev Bedu ‘still look there for advice on customary law...They feel that their brothers in Sinai have remained closer to the ideal way of life of nomadic herdsmen, are more militant and independent, and have preserved intact their traditional culture.’ In the following section I examine what is known from the literature about South Sinai bedouin life, livelihoods and culture, looking in particular at the Jebeliya tribe in St Katherine.

2.2.1 Tribes, territories and law

Demographics

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Population</th>
<th>Territory*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mzeina</td>
<td>1700</td>
<td>East &amp; south</td>
</tr>
<tr>
<td>Jebeliya</td>
<td>1100</td>
<td>High Mountains</td>
</tr>
<tr>
<td>‘Aleygat</td>
<td>1050</td>
<td>West coast</td>
</tr>
<tr>
<td>Gararsha</td>
<td>900</td>
<td>Feiran to west coast</td>
</tr>
<tr>
<td>Awlaad Sa3iid</td>
<td>450</td>
<td>Mountains</td>
</tr>
<tr>
<td>Howelat</td>
<td>390</td>
<td>Lower Feiran</td>
</tr>
<tr>
<td>Hamada</td>
<td>250</td>
<td>North West</td>
</tr>
<tr>
<td>Sawalha</td>
<td>160</td>
<td>North West</td>
</tr>
<tr>
<td>Beni Wasil</td>
<td>100</td>
<td>el Tur</td>
</tr>
<tr>
<td>Total</td>
<td>6100</td>
<td></td>
</tr>
</tbody>
</table>

* See Map 2 p 43

Since no official census has enumerated them in recent years, it is difficult to assess accurately how many Bedu live in South Sinai today, but Table 2.1 shows the result of an

\(^{23}\) News report following bombing of Dahab, April 6\(^{th}\) 2006.
Israeli census in 1968. The best current estimate is probably between 25,000 and 40,000 at most (around 2500 being Jebeliya), and accounting for approximately one-third to one-half of the governorate’s resident population of 65,000 - 80,000.  

There are today eight predominant tribes or confederations generally recognized in South Sinai: Aleygat, Haweitat, Badara, Laheiwat, Tarabiin, Mzeina, Jebeliya and Sawalha. Centuries of tribal warfare have forged alliances and enmities. ‘Sawalha’ is sometimes used as the collective name for a loose alliance between Awarmra, Gararsha and Awlaad Sa3iiid, although in my experience it more often denotes the discrete tribe whose lands extend along the Suez coast north of el-Tur. Six tribes have traditionally formed a confederation known as the Tawara (‘Mountain People’): Aleygat, Mzeina, the three Sawalha sub-tribes and the Jebeliya (Hobbs 1995). Since their territory is entirely encompassed by the Protectorate half my interviewees were Jebeliya; the other half were from tribes whose lands adjoin or are included in it, or who regularly move in and out of it (as described in Chapter 3).

Sinai has been peopled and colonized from prehistory (Finkelstein & Perevolotsky 1990). The earliest tribes and tribal confederations to migrate from Arabia to occupy territory in South Sinai prior to the Islamic conquest are thought to be the Hamada and Badara, along with the Beni Wasil and Beni Suleiman (Murray 1935: Ch XV; Bailey 2002: 5), none of whom hold land there today. Most other tribes arrived later – from the fourteenth to the seventeenth century CE, with the exception of the Jebeliya, who arrived in 527 CE, sent by the Emperor Justinian to help build the Monastery of St Katherine and serve the monks. The Jebeliya are commonly said not to be ‘true’ Bedu, since their originating families were not Arabs but Christianized peoples: Greeks from Alexandria and local people from Wallachia (modern Romania), Bosnia and Anatolia. Although Hobbs notes that the Jebeliya’s cultural integration was progressed by intermarriage with the Beni Wasil (1995:140), he also states that as late as 1950 they were contemptuously referred to as ‘ruumi’ – Romans, connoting Christianity – by other tribes, who by then refused to intermarry with them, a discrimination I witnessed during my fieldwork.

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24 Lower figure: unpublished data from South Sinai Governorate, 2009 (Dr Samy Zalat, pers comm.); upper figure estimated from rural population figures, 2006 census: www.msrintranet.capmas.gov.eg
25 Lavie (1990) does not include the Jebeliya in the Tawara.
26 A Tarabiin with a strong interest in bedouin history explained to me that ‘Badara’ is cognate with bedri, meaning ‘early’.
Tribal territories and organization

It is difficult to arrive at a clear picture of tribal boundaries today. The limited number of anthropologists and administrators who have attempted it have produced very different maps (some having little in common but the indisputable Jebeliya stronghold in the high massif), but the trend is toward simplification. Despite Glassner’s (1974) comments on the stability of tribal boundaries, he also records shifting alliances, mergers and re-naming of...
tribes, giving an impression of fluidity and gradual reduction from a more complex tribal pattern to a simpler one. The fact that the simplest maps are the most recent appears to reflect a collapse of earlier complexity under pressure of change in the twentieth century. Map 2 indicates current areas overlaid on the Protectorate boundary.

The names assigned to bedouin tribal subgroups and lineages vary between regions. I use the terminology preferred by the people I have spoken with, set out in Table 2.2

Table 2.2: Tribal subdivisions and terms common to South Sinai Bedu

<table>
<thead>
<tr>
<th>Term</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3ashira</td>
<td>Confederation</td>
</tr>
<tr>
<td>gabila</td>
<td>Tribe</td>
</tr>
<tr>
<td>rob3</td>
<td>Clan</td>
</tr>
<tr>
<td>3a'ila</td>
<td>Lineage</td>
</tr>
<tr>
<td>khams</td>
<td>Co-liable revenge group</td>
</tr>
<tr>
<td>nabaz</td>
<td>Nickname</td>
</tr>
<tr>
<td>osra</td>
<td>Family/household</td>
</tr>
</tbody>
</table>

The *gabila*, or tribe, is the largest discrete unit, independently able to join alliances or confederations with others but recognizably a segmented group with common ancestry. The *rob3* (plural *rubu3*) subgrouping, or clan, means ‘quarter’, although some tribes have nine or ten subgroups. In the Jebeliya, the highly asymmetrical structure of the *rubu3* reflects the historic patchwork of the tribe’s origins. Each of the four – Waheibaet, Hamayda, ‘Awlaad Seliim and ‘Awlaad Jindi goes back to a named ancestor: each of the four clans retains a consciousness of its origins. Remarkably, the Awlaad Seliim retain a distinctive vocabulary from their pre-Islamic Romanian origin; while the ‘Awlaad Jindi trace their descent to the Egyptian soldiers sent much later to guard the Monastery (around 1520, according to Hobbs [1995: 140]). Lineages (*3a'ilat*) are able to trace a common ancestor within their *rob3*. Jebeliya genealogy is not as far-reaching as most other tribes; however, the story of each family’s provenance is known to it for several generations. Appendix 1.1 shows the structure and location of Jebeliya lineages as reported by a number of its members in recent years (Zalat & Gilbert 2008: 29-31). It updates Rabinowitz’ (1983:13) table based on Ben-David’s 1981 original. With small amendments this table is corroborated by my findings (Appendix 1:2), suggesting that Jebeliya tribal structure, barring assimilation of a few outside groups, remains largely stable.

Leadership is assumed at tribal level by sheikhs (*shuyukh*). Each tribe has a principal elected sheikh, confirmed in this role by the government, which pays him a small honorarium for his role representing his tribe in official matters. Where a tribe has settlements in different areas each will have its own sheikh. Each *rob3* has an elected *omda* or headman, traditionally responsible for the fair distribution of work within the clan. In recent times,
however, this role has been assumed in the Jebeliya by an alternative sheikh on a hereditary basis. This role has evolved separately from that of the elected sheikh who arbitrates in disputes, leads on tribal issues and acts as a spokesman with outside authorities (Rabinowitz 1983). The Jebeliya, Rabinowitz argues (1983: 31), have become ‘an irregular Bedouin polity’ by allowing the Monastery significant influence in their tribal politics, including appointment of sheikhs.

I discussed above the theoretically egalitarian nature of bedouin societies. While contested by scholars, social equality and an absence of hierarchy still have currency as an acknowledged ideal in South Sinai. Many of my interviewees viewed al-куabar (the ‘big men’) in their locality with suspicion, and complained that society had grown more unequal. ‘Nowadays, the strong eat the weak’ was a judgement I heard often and an important element of people’s response to modern life, to which I will return in Chapter 8. Nonetheless, Lavie’s reporting (1990: 246) of similar sentiments expressed by Mzeina in the mid 1980s suggests that equality and social justice may be another element of what I have come to think of as zamanism27 - a romantic nostalgia for the past.

As mentioned, bedouin societies are patrilineal and virilocatal. As described to me, the rather conservative South Sinai Bedu have normally been endogamous at clan level, i.e. men have traditionally married women from within their own rob3 – preferably a bint ‘amm (father’s brother’s daughter); and have needed the sheikh’s permission to marry outside it, even within their own tribe. Inter-tribal marriage has been frowned upon, especially among tribes concerned to retain a ‘pure’ genealogy.

Customary law

As described above, Bedu have their own legal system (al-3urf) for regulating violations of person, property and honour, to which South Sinai Bedu are subject. Murray complained (1935: 243) that of all the features of Sinai Bedu ‘their love of litigation is the most tiresome.’28 Four tribes in North Sinai produced specialist judges for the whole peninsula, dealing with violations of a woman’s honour, marital problems, bodily harm, and cases where there were no witnesses (Bailey, 2002: 5). In the latter case the ‘Ayayda oversaw the process of telhass el nar, or ordeal by fire, described above.29

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27 A light-hearted coinage from the Arabic zaman ‘long ago’, ‘before’ or ‘in the past’. I use zamanism to describe ‘those were the days’ nostalgia and zamanistas for those who indulge in it.
28 Murray’s classically Orientalist monograph on the Bedu (Sons of Ishmael [1935]) provides a rare detailed study of bedouin social organization - for those who can bear to read it.
29 This system is very much alive in South Sinai, but is more often threatened than applied. The penalties for bringing a false allegation resulting in such an ordeal are enormous (Mohammed Khedr, pers comm; Bailey 2010: 166).
As elsewhere, revenge can be exacted on any male member of the family of a murdered man or dishonoured woman over a span of five generations. Retributive blood feuds have characterized bedouin life historically but rarely occur now in Sinai. Among the Jebeliya there has been no such feud in the living memory of my respondents. Marx (2003) reports that no case of murder had occurred in fifty years, peaceful co-existence being ‘a precondition for conducting smuggling operations across tribal boundaries, and for keeping State authorities at bay’. This is not the case in other areas, where the authorities are exercised to control long-running vendettas; and in South Sinai itself a running dispute involving members of the Mzeina and ‘Aleygat reportedly resulted in five deaths in 2008 alone.\(^3^0\)

Along with violations of honour (which today often include matters of probity in business dealings), bedouin law has chiefly regulated land and property. Officially, clans collectively own resources such as water sources, cultivable land or important trees, and brand them with their wasm (unique mark). This has ensured access by clan members to resources wherever (within tribal territory) they might be, and allowed control of access by others.

Tribal and family ownership of land in South Sinai have historically co-existed with the Monastery’s claim to own all the land within three and one-third days’ camel ride (Hobbs 1995: 85). However, in practice many resources are in jealously-guarded private ownership. Marx (1999) explains the position of a Jebeli wishing to establish a garden: ‘Any land in tribal territory that is not already cultivated is available to him....[but] cultivation bestows rights to the land: a well, walls and trees belong to the individual who made or planted them and pass to his male descendents.’ Enormously heavy fines may be exacted for infringing property rights.\(^3^1\) Entering a Jebeliya garden to take fruit without permission (unless the intruder eats from necessity) could cost the offender an amount equivalent to several years’ living costs (Hobbs 1995: 184). In South Sinai, violations of access restrictions are treated as a matter of honour (Stewart 2006: 269; Hobbs 1996:184).

Jebeliya women have well-defined rights to own property, and receive – literally - the fruits of their inheritance if not the inheritance itself. Zalat & Gilbert (2008: 43) outline women’s rights as explained by Jebeli informants:

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\(^{30}\) Tribes form alliances in which each man contributes to the cost of blood money (diya). The miscreant pays the first quarter of the fine; the alliance funds the rest. The money is split on the same basis between the aggrieved party and his tribe or alliance. The law-abiding Jebeliya get a bad deal from this arrangement. Tired of subsidizing the misdeeds of their Gararsha and Awlaad Sa3iid allies, they have renegotiated the deal in 2010 only on condition of receiving fair returns when diya is distributed (Mohammed Khedr, pers comm).

\(^{31}\) As mentioned earlier, ‘Both trees and women are hurma,’ says Hobbs (1995:184), ‘the inviolable property of men.’
Women are never owners of gardens, since their wealth is held in the form of gold and goats. Inheritance among the Jebeliya is unequal among the sexes, following the standard Islamic pattern. After the death of the parents the estate is divided into shares according to the principle that a male child inherits two shares to every one share allocated to a female child. The reasoning behind this is that a man incurs the full cost of providing a home for his wife, whereas a woman is not expected to pay anything, but keeps her inheritance for herself. A Bedouin woman never gains a share of the land or houses, but only the trees and the fruit. This is because the Bedouin believe that if a woman inherits the land then this will automatically transfer after her death to her husband's family...Therefore the men keep the land and the house so that the family name (and their sons) will continue to be associated with them. In return, the maintenance and all the duties of the garden are the job of the man and his family, but he must split the products of the trees with his sisters so that they gain their share of their parents' inheritance.

2.2.2: Historic core livelihoods

In the following sections I describe what I term 'core' livelihoods as practised before 1967. Much of the literature that documents them was produced by Israeli residents of Sinai during the 1970s, keen to record the 'status quo' that obtained before the Occupation. Many of these accounts are flavoured with what Lavie (1988: 43), quoting Rosaldo, has dubbed 'imperialist nostalgia.'

In South Sinai, bedouin livelihoods have been based on semi-nomadic pastoralism, and in the high mountains and oases on the cultivation of orchard fruits and dates. The occupations are complementary: the low physical endurance of small livestock restricts the distances animals can travel, and they rarely moved more than 50 km from summer water sources (Bailey 2002), enabling horticulture and limited agriculture to develop in a combination unique to the region. These defining occupations were historically supplemented by paid work, which I discuss below. The significance of their contribution to subsistence has varied in relation to the availability of other economic opportunities, receding when wage-labour was plentiful. They are nonetheless documented as persisting at some level in almost every account. Studies of the Jebeliya by Avi Perevolotsky in the 1970s and 1980s examine them in detail as traditionally practised, and I use his studies (Perevolotsky 1981; Perevolotsky, Perevolotsky & Noy-Meir 1989) as the basis for the descriptions that follow.

Semi-nomadic pastoralism

Rabinowitz' (1985) account of bedouin subsistence downplays the historic importance of herding, both symbolically and economically. However, Perevolotsky et al (1989) demonstrate that in the mid twentieth-century South Sinai Bedu relied upon their mixed
flocks of goats and sheep for a substantial percentage of their living. They illustrate the
expertise with which the microclimates of different wadis and elevations, with their
characteristic vegetation and water supply, have been used by Bedu to derive maximum
benefit from their surroundings.

**Flock size and grazing practice**

Before 1967, herding was essential to the household economy of the 20 families
Perevolotsky observed and interviewed. To make a significant contribution to a family of five
or six people flocks had to consist of at least 50 animals (local mean 78 ± 42). Perevolotsky
reviews investigations by Bujra (1963), Asad (1970), Nicolaisen (1963) and Barth (1961) of
pastoralism in Egypt, Sudan, the western Sahara and Iran respectively, indicating that Jebeli
flock size matched that of others in comparably arid habitats. In the high mountains,
Jebeliya flocks were mostly (87%) black goats which find it easier to reach inaccessible
vegetation; outside the mountains sheep predominated. Tending the flocks was the work of
women and children.

Maintaining large flocks in a desert requires an intimate knowledge of climate, geology and
botany, and the Jebeliya used all three to evolve their migration cycle, rotating between red
granite and black basalt areas according to seasonal vegetation cycles. Historically, South
Sinai pastoralists have grazed their flocks all year round needing only occasional winter
fodder. Where livestock at Perevolotsky’s recorded densities left high mountain pastures
vulnerable to overgrazing, Bedu dealt with this by means of self-imposed controls, no
grazing of summer pastures being allowed in winter on pain of a heavy fine. The Bedu I
interviewed call these regulations ‘half’; their annual rotation systems ban grazing from
total wadis, allowing vegetation to regenerate. Perevolotsky calls the regulation anwa’
(‘agreement’), and notes that similar rules apply in Wadi Baghaba, Bir S3aal and Wadi Feiran
(an area covering today’s Protectorate and beyond). The system mirrors the ‘hema’
approach described by Shoup (1990) and Chatty (2004) in Syria, and similarly supports the
ecosystem. It would be mistaken to suggest that overgrazing is never a problem around St
Katherine: increased sedentarization has led to greater population density and pressure on
pasture. However, rapid adjustment of bedouin husbandry to political and climatic change
means that Bedu are not the only cause of vegetation loss, as I explain in Chapter 6.

**Importance to household economy**

The economic value of flocks changed dramatically during the Israeli Occupation as I explain
in Chapter 4; but prior to 1967 herding was a central plank of bedouin household economy
(Perevolotsky et al 1989). In addition to cash returns, sheep and goats have traditionally

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32 I have not had access to this literature myself: it is fully referenced in Perevolotsky et al (1989).
provided valuable protein from milk, cheese, and (more rarely) meat. They provided wool for rugs and for weaving tent panels, and hides for carrying water, making rope and any number of practical daily uses. Zalat & Gilbert (2008: 48-49) explain in detail the processes of making cheese, butter and ghee (important since olives are now rarely pressed for cooking-oil). Butter is made and water stored in goatskins sewn and decorated by women. A skin for butter-making is treated with dried *Globularia Arabica (handakuk)* thought to prevent the butter from turning sour. Ghee, having been purified using another local shrub, *Reaumuria hirtella*, can be stored unrefrigerated for up to two years.\(^{34}\)

Livestock constitutes capital wealth, so meat has never featured frequently in the bedouin diet which consists largely of vegetables stewed as tagines and sauces. Hunting for the pot might produce a rabbit or *dhabb* lizard. Rice has always been a staple starch, and flatbread – *fateer* – baked on an oil-can lid, or *libba* cooked directly in the embers, still accompanies every meal. These cereals, as well as tea, coffee and sugar, oil and lentils, remain essential commodities which cannot be locally produced; their purchase has always required cash from labour or trading.

In the past, most Jebeliya could expect good quality water from the mountains, fresh milk in season, dried dairy proteins out of season and home-grown fruit and vegetables, fresh or preserved. As a result meat has had symbolic rather than calorific value in people’s lives and diets. Bailey (2002) comments that to slaughter a kid or lamb has traditionally been the highest honour a Bedu could bestow upon a guest.

**Orchard horticulture**

The systematic cultivation of orchards as a primary means of subsistence is rare among people considered nomadic. In South Sinai it is practised chiefly by the Jebeliya whose tribal territory in the high massif makes possible a complementary system of cultivation coupled with seasonal herding.

At the time of Perevolotsky’s (1981) study 170 high-mountain Jebeliya families owned more than 231 orchards of 440 in the region (the rest belonging either to Jebeliya living outside the central massif or to other tribes, chiefly ‘Awlad Sa3iid). Three-quarters of families in the mountains owned an orchard, with the majority owning one or two. Those without were by and large newly-married couples saving for their first one, or people who had lost their

\(^{33}\) South Sinai Bedu have no tradition of making clothes from their wool, which is heavy and coarse. It is, I have discovered, suitable for felting, a use CFSS is starting to promote.

\(^{34}\) Bedouin use of medicinal plants is a rich and important topic, but beyond my scope here.

\(^{35}\) *Uromastyx ornata*
orchard through poverty or tribal fines. Building an orchard had always been expensive and Perevolotsky notes that the cost of purchase from an existing owner, and construction of wells and walls, depended on funds obtained from outside sources – the Monastery, hashish-smuggling or wage work. Marx (1999) mentions that labour might be donated in a system of reciprocal favours. However, construction could not be attempted without a capital reserve to sustain the family during building.

Principal crops

Most of the fruit documented by Perevolotsky comes from frost-hardy rosaceous trees native to cold climates: apples, apricots, pears, plums, almonds and quinces etc. The majority do not grow successfully elsewhere in Egypt (date palms, by contrast, do not thrive at high elevations). Figs, grapes and pomegranates can all be grown successfully. The most popular varieties are those that can be preserved and stored, usually by sun-drying. Fruit is also preserved as jam, and (a speciality of apricots) pureed and dried in flat, chewy sheets. The Bedu apply generations of expertise to grafting and pest control, and they produce and store fine fruit. It is likely that these techniques were originally learned from the monks, since horticulture was a feature of Byzantine monasticism (Hobbs 1995), and many locally-excavated monastic sites include a garden area (Dahari 2000).

Prior to 1967 the produce of the orchards was taken to market in Suez, el-Tur or Cairo, demand being ensured by the rarity of mountain fruit in Egypt. Underneath the trees, making best use of irrigation water, salad and vegetable crops were also grown, including tomatoes, aubergine, peppers, squash varieties, beans, onions and tobacco, and glutinous bedouin favourites such as rigla (Portulaca oleracea: Purslane) and molokhaya (Corchorus olitorius: Jew's Mallow) (Perevolotsky 1981; Zalat & Gilbert 2008).

Despite their successful cultivation over many centuries, Perevolotsky commented in 1981 that: ‘The importance of the orchard in the Jebaliyah economy has been fundamentally altered by the Israeli presence in the Sinai. Only 30% of the region’s orchards are currently being cultivated, while 32% have been abandoned.’ Before 1967 a well-tended orchard could provide subsistence for an average family for at least six months. Subsequent increases in the cost of living reduced that to just one month, removing the justification for time spent on cultivation at the expense of other work. By the end of the Occupation most fruit and vegetables were grown for family consumption rather than sale.

36 Jujube (Zizyphus spina christi: sidr) and figs (Ficus palmata: tiin) are also popular in the gardens, while Carob (Ceratonia siliqua: kharoub) and Mulberry (Morus nigra: tuut) grow in some wadis outside the gardens, planted long ago as an act of charity to sustain travellers (Zalat & Gilbert 2008).
Paid work and an ‘economy of opportunism’

‘Bi3 w’eshteri, wala tankeri’ (Sell and buy, but don’t work for hire)’ (Bailey 2004: 224).

Despite the advice of the proverb, South Sinai Bedu have historically chosen to supplement their core livelihoods with a variety of work, including charcoal manufacture, transporting goods by camel, guiding pilgrims,37 hunting and fishing in order to trade, and smuggling (Rabinowitz 1985; Lavie 1990). Jebelija subsistence was historically supplemented by low-paid but secure wage-labour in the Monastery, as well as some share-cropping of monastic orchards and a dole of bread from the monks (Hobbs 1995). The bedouin economy, then, has always included paid work, either local or (latterly) as migrant workers.

When legal means of earning have been in short supply, South Sinai Bedu have turned to smuggling - and latterly growing - drugs (Lavie 1990; Hobbs 1998; Marx 1999). There has historically always been a demand for narcotics – primarily opium - in Egypt (Hobbs 1998). Since at least the turn of the twentieth century, Sinai has provided an important overland route between producers in Anatolia and markets in Cairo. Sinai Bedu have profited from this trade, acting as the main couriers of opium and hashish throughout the twentieth century. Bailey (2002: 7.10) explains that they have done so without compunction: ‘They even felt themselves entitled to smuggle...being the inhabitants of an impoverished area whose plight the authorities did little to alleviate.’ Successive campaigns by both Egyptian and Israeli administrations brought the trade almost to a halt in the mid-1960s and 70s, introducing controls such as identity cards, and imposing harsh prison sentences on offenders. Loss of this income provided a major inducement to take up migrant labour opportunities under the Israeli occupation, leading to increased sedentarization (Glassner, 1974; Rabinowitz 1985). However, the drugs trade did not cease but was simply reorganized (Marx 1999). Hobbs (1998) explains how involvement in narcotics has demonized the Bedu in Egyptian public opinion. In his view, however, they resort to smuggling and growing drugs from economic need, and would abandon the trade if viable alternatives existed.

Marx (2003) argues persuasively that the trading of commodities in urban centres qualifies South Sinai Bedu to be seen as a fully-developed urban society. He explains (2003:5) how his thinking evolved from notions of an ‘economy of opportunism’ - seeing core occupations as a stop-gap for when other opportunities failed - to appreciating ‘the secure base of Bedouin society’ as a diversified, integral part of the greater market economy, involving ways of life which people followed from choice rather than by default. Marx describes people pursuing active strategies for making the best of change (for example investing in

37 A significant body of literature spanning almost 1600 years, starting with the Spanish nun Egeria in the 4th Century CE (Harrington 1976), describes the experience of European pilgrims to St Katherine’s Monastery and their bedouin guides. Space does not permit me to examine it here.
development in Israeli-occupied Bir Zrer [1999:254]), and diversifying their activities to minimize risk. He explains:

‘While practically every person raised flocks and tended orchards, most men were labour migrants and many others were involved in smuggling, quite a few men and women were also engaged in specialized trade. They were well-diggers, builders, caravaneers, truck-drivers, vegetable farmers. They were pollinators of date palms, fishermen, boat-builders, shopkeepers and owners of coffee-houses. Some were government employees, such as tribal chiefs, teachers and government informers. There were tribal judges, healers, jewellers, tailors, basket-makers, tourist guides and the permanent menial workers of the Santa Katerina monastery. Nearly all these specialists were men, but there were women healers, fortune tellers and midwives.’

Marx, then, analyzes South Sinai bedouin society not as a simple agropastoralist economy at the mercy of changing conditions, but as a dynamic and complex part of urban civilization, viewing bedouin agency as a sophisticated driver of livelihood strategies. However, the propulsion of South Sinai into two modern economies in quick succession has involved accommodation on an unprecedented scale, as I shall explore further.

**Conclusion**

Nomadic pastoralists wherever they live have confounded essentialist definitions: far from being isolated, static societies dependent solely on livestock for subsistence, they have actively adopted ecological, economic and political strategies in order to make best use of marginal territories, retain a degree of autonomy from state control, and to establish trade and exchange links with settled communities using products derived from their husbandry. The Bedu share many of these features with pastoralists in general, including tribal social organization and natural resource management systems. We have seen that for pastoralists in general, and Bedu in particular, the proportion of time and effort allocated to different livelihoods is a conscious adaptation to changing political, social or ecological circumstances. The extent to which they are able to adapt successfully depends in large measure on the scale and speed of change, and on the relative power of those who initiate it. In South Sinai, locally-specific horticulture and husbandry methods provided ‘core’ bedouin livelihoods prior to the onset of ‘development’. Its practitioners have nonetheless adopted a range of alternative paid occupations that have integrated them fully into an urban economy, as Marx (1999) has shown. However, even writers who recognize bedouin agency acknowledge that accelerated ‘development’ in the late twentieth century has subjected Bedu to change that they cannot control.

Across the Middle East and North Africa Bedu have increasingly been subject to sedentarization by modernizing governments whose emphasis on ‘progress’ regards pastoralism as primitive, and nomadic peoples as intrinsically problematic, their mobility
putting them out with state control. Once settled, state policies towards them have varied from benign neglect to dispossession and coerced settlement; few receive full rights and services as citizens. The livelihood changes entailed by settlement expose formerly mobile pastoralists to economic fluctuation for which - unlike climatic fluctuation - they may not be strategically equipped; while the ecological impacts of sedentarization are routinely laid at the door of the Bedu rather than the political expediency that occasions it. In general, it seems, Bedu have not prospered from accelerating change and have ended up, as Chatty (2000: 68) puts it: ‘economically and politically marginalized, unable to accumulate the power needed to represent their community interests within the State’. I return in Chapter 4 to the factors that have contributed to this outcome in South Sinai, while turning next to the circumstances that led to my study, and how I approached and conducted it.
Chapter 3

Background and methods

In this chapter I explain the background to my study and my position in St Katherine as a researcher and practitioner, and how both have influenced my approach. I describe how I responded to the people I spoke and worked with, how I perceived them to respond to me, and how those perceptions were reflected in my fieldwork – participant-observation and interviewing - and representation of local people. I conclude by describing my methodology: design, sampling and analysis.

3.1: Reflexivity: my position in St Katherine

History and context

My writing about life in Katriin is strongly affected by what Said (1977: 25) calls ‘the personal dimension.’ Quoting Gramsci, Said notes: ‘The starting point of critical elaboration is...‘knowing thyself’ as a product of the historical process to date’, adding that ‘it is critical at the outset to compile such an inventory.’

My inventory did not include anthropology or development studies until late in the day.38 From 2005 to 2007 I lived in Cairo, accompanying my husband39 on sabbatical. An academic ecologist, he and his Egyptian collaborator Samy Zalat40 had done fieldwork in St Katherine for twenty years. The need for local expertise involved them closely with bedouin guides well before the establishment of the Protectorate. This collaboration has given me the opportunity to visit Katriin almost annually since 1992, indulging my interest in birds and plants.41

My research would embrace tensions between Bedu, Egyptian park managers and academics, and international conservationists. The Egyptian response to the Bedu is often couched in evolutionist language that casts Bedu as both primitive and inferior. Ironically, by highlighting the Bedu’s development needs, the very measures designed by the transnational project to support them have reinforced national notions of Bedu as underdeveloped and primitive (Ferguson 2005; Green 2006). I am dismayed by the unconscious essentializing and casual prejudice that governs many approaches to Bedu. My growing understanding of the bedouin position has led me to align myself with Bedu where

38 My first degree was in languages; my professional concerns lay for 25 years with inequities in healthcare and community provision.
39 Dr Francis Gilbert, Associate Professor of Ecology, University of Nottingham.
40 Dr Samy Zalat, Professor of Biology, Taiba University, el 3ula, Saudi Arabia.
41 As well as regular bird lists I have published the first sighting in Egypt of the Rock Nuthatch (Sitta neumayer) (Meakin et al 2005)
need has arisen, causing personal tension with Egyptian colleagues. It may yet get me into trouble with the state. The personal involvement of my husband, with European and Egyptian friends and colleagues, in shaping both conservation and development agendas in St Katherine creates competing loyalties that I sometimes find hard to negotiate. This conflict is well illustrated by the argument I present in Chapter 6, in which every piece of research I critique or quote from has been produced by someone known to me personally, in some cases quite well.

Politics and the Community Foundation for South Sinai

My work in St Katherine is not confined to research. For almost ten years prior to moving to Egypt, I had been the first Director of Derbyshire Community Foundation, overseeing its growth from start-up to becoming a significant local grant-maker. In 2005, I started to explore whether the community foundation model was adaptable as a vehicle for development in South Sinai. The concept rests upon a combination of defined geographical area, community need, disposable private wealth and a culture that values philanthropy (El Daly 2004); all were present in the area. After a period of consultation we applied to establish the first community foundation in Egypt, and it was registered in el-Tur in November 2006. I have written elsewhere about this process (Gilbert 2009). The Community Foundation for South Sinai (CFSS) was founded by myself and my husband, Samy Zalat and his wife, and our friend Faraj Mahmoud, a Jebeli businessman and community leader. Since then the Foundation has established itself as a provider of small grants and in-kind help with hardship and medical care; support for environmental and educational initiatives; and projects such as providing an olive oil press for community use, and buying loan equipment to improve people’s access to water. (See photos 3.1 and 3.2 below)

Photographs: 3.1 Community pool, W Sahb, July 2008; 3.2: The first olive oil from the community oil press, March 2009. Faraj Mahmoud, right (photos by HG; Lucy Gilbert)

42 Community foundations are locally-based, endowed grant-making trusts. The sustainability of successful ones has made the model popular worldwide (Sacks 2008)
43 Dr Somia al Akkad, Professor of Biology, Taiba University, el 3ula, Saudi Arabia.
CFSS has to be extraordinarily careful to focus its efforts on work that is clearly charitable. The Egyptian state has no tolerance of NGOs that it considers political, and can shut them down, sequester their assets and even imprison their personnel (Abdelrahman 2004, Gilbert 2009). We therefore walk a tightrope between attempting to create a vehicle through which Bedu can usefully improve their life-chances, and attracting unwelcome attention as activists. Having been security-cleared for the charity I was advised that my research would be more acceptable to the security services if couched as a charity-related community needs assessment, rather than as an academic exercise. In the event this proved both convenient and academically justifiable, since my questions covered a range of issues generated by the Protectorate’s approach and by earlier research, whilst also generating information about community priorities.

Doing development work in St Katherine allows me to escape what Ferguson calls ‘the anthropologist’s terrible sense of sadness’ at the ‘inability of scholarship to address the sorts of demands that people brought to [him] every day’ (Ferguson 1999: 18). However, it produces a direct line of accountability to people onto whom, by describing their poverty or analyzing their resistance, I might draw unwelcome attention. Brosius (1999: 288) warns that: ‘When we describe [grassroots] movements we are mapping terrains of resistance, and making public what Scott (1990) has called ‘hidden transcripts’. We thereby...provide maps which might be used to the detriment of those whose efforts we study.’ My own position, too, entails risk. Like Rabinow (1977: 79) my activities are ‘observed, reported and distorted by various factions’, ensuring that anything I do is known about instantly. The risk of reprisal is real.

However, in order to value the time people have committed to helping me, the Foundation must use their information both to tackle the inequities they report and to work towards the changes they aspire to; otherwise I will have wasted their time and added to the sum of local cynicism. However, the Foundation’s ability to provide such opportunities – indeed to do anything at all - depends critically on not offending those who need to listen. While political in intention, then, our work must appear apolitical. If we are to work effectively it will be as mechanics in a reverse ‘anti-politics machine’ (Ferguson 1994).

**Response and representation**

From the outset, understanding the nature of my relationships with people in Katrin has been a key concern in the light of my need to write about them. Lila Abu-Lughod’s approach, living and working with Awlaad ‘Ali Bedu near Matruh, resonated strongly with me. In the introduction to *Writing Women’s Worlds* (1993) Abu-Lughod discusses why she wrote not a standard ethnography but a series of stories; accounts of the experiences of Awlaad ‘Ali women (using their own words where she could) not as examples of social
practices or institutions, but as descriptions of ‘life as lived’. She writes, she says, ‘against
culture’; aiming to describe people’s lives in such a way that the generalized term ‘Bedouin
culture’ is rendered meaningless.

I have been continuously struck by the range of individual responses to life in and around St
Katherine, and by the inadequacy of any essentializing, ‘culture’-centred toolkit for the task
of making sense of them. People’s individual stories, where careful attention is paid to
eliciting ‘voice’, may better illustrate key anthropological concerns without producing
‘otherness’ or obscuring individual responses under an essentializing notion of ‘culture’ (Abu-
Lughod 1993; Atiya 1984). Instead of noting that ‘The Bongo-Bongo are polygynous’, Abu-
Lughod asks, ‘what if one refused to typify in this way, and instead asked how...three
women and their husband in one community live the ‘institution’ that we call polygyny?’
(1993: 13). Interspersed between chapters 3 and 8 are a series of ‘interludes’ which I have
collectively labelled Life as Lived. In them I try to describe the feel of bedouin life in and
outside St Katherine from my perspective as a participant-observer. I cannot know what life
feels like to Bedu themselves; but I try to provide snapshots of how the issues I examine in
the text impinge on people day-to-day. The interludes follow two composite days, one in the
town and one outside in the wadis, divided by the five calls to prayer. They provide a
different type of narrative, drawing on qualitative material, and describing activities and
conversations all of which I have either taken part in or witnessed over at least three years.
All names and most place-names have been changed for safety’s sake; a few individuals are
composites to disguise identity.

For Abu-Lughod, the most troubling aspect of ethnographic description is that, by
encouraging generalization, it ‘facilitates the construction of...others as simultaneously
different and inferior.’ Anthropology thus ends up constructing, producing and maintaining
difference (1993: 7–13). My aim has been actively to avoid producing difference in this way.
My long-term role means I can develop lasting relationships rather than simply conducting
interviews. I am also aware that my role with the Foundation enables people to see me as a
potential resource; people’s willingness to co-operate may be, consciously or unconsciously,
bound up in the debt-relationship system, generating an unspoken bargain which leaves me
with a responsibility to reciprocate.\(^{44}\) That said, my unassuming approach\(^{45}\) and efforts to
communicate seem to be welcomed for themselves, resulting in personal friendships outside
my formal role. At times I am treated as an ‘insider’: for example, when an unsuccessful
appointment to the Foundation’s staff team turned sour I was implicated in a case of

\(^{44}\) Only once was this ‘deal’ made explicit during my interviews: the wife of one interviewee asked me for money.
‘We’ve given you the information that you need,’ she said: ‘Now you should give us money, which we need.’ In
general the system works more subtly, with debits and credits unspoken but remembered and returned over long
periods of time.

\(^{45}\) It is regularly appreciated that, unlike most outsiders, my husband and I do not have a car, expect to carry our
own things, and do not expect special treatment.
malicious slander that led to a jurfi hearing. When the slander became public, the judge to whom I gave evidence accorded me the same right to be heard as the bedouin plaintiffs, and assumed that I was equally entitled to justice. It might have been otherwise: Stewart (2006: 242) notes that ‘Bedouin law is not territorial but personal. Strangers often have no rights at all.’

3.2: Research method

Fieldwork

Residence and participant observation

Interviewing required me to live in Katriin, some six hours’ drive from my base in Cairo. In recognition of our commitment to CFSS, and my imminent need for accommodation, our co-trustee Faraj offered to build us a small house at the edge of his land in Wadi Shreij. Despite being advised, in Cairo, to work with an Egyptian research assistant it was soon clear that only a bedouin assistant could negotiate me into the social settings my research required. Hobbs (1998:8) remarked that people limited themselves to superficial conversation when he was accompanied by an Egyptian park ranger, being ‘very sensitive about the perceived scrutiny of actual or perceived government representatives’. One tribal leader in Wadi Feiran expressed this to me succinctly: ‘If you had come with an Egyptian’, he said, ‘we would have told you nothing!’ After one or two false starts I was introduced to Mohammed Khedr, a guide in his late twenties whose engaging personality and wide social networks secured my access to more social settings than I could have hoped for (below).

Photo 3.3: Mohammed Khedr (HG)

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46 Interview 100: 20/08/08
'The essence of participant observation' according to Punch (1993:185) ‘is the prolonged participation of a researcher in the daily life of a group... and his or her attempt to empathize with the norms, values and behaviour of that group.’ This task would have proved difficult without Mohammed. He has been the key interpreter of life in St Katherine to me, and of me to people in Katriin. From the outset Mohammed’s ability to debrief and answer my questions in good English gave me deeper insight into people and context than my learner’s Arabic permitted. Bourdieu comments that: ‘the ethnologist and his informants are collaborators in the work of interpretation’ (Rabinow 1977: 156). By watching Mohammed’s dealings with people I acquired more confidence in judging how to behave myself. I developed an inkling of the delicate working of debt relationships, and started to appreciate the exquisite courtesy of bedouin social relations, especially in the treatment of guests. Rabinow’s (1977) account emphasizes the dependence of researchers on their field assistants. I was more than fortunate in mine.

At first I threw myself into as many social situations as possible, eating night after night with bedouin guides round the fire, going out herding with girls in the wadi, accepting every invitation. After a while, however, I started to feel that dislocation that comes from living detached from one’s usual social reference points. I succumbed to temptation and started cooking for myself at home: my situation had transformed me into ‘Doktora’47, but sometimes I needed, like the Lancasters (1981: 6) to ‘retreat into [my] real identity’. Over time I developed a modus operandi that allowed me to express my personality while living on my own for long periods in Katriin; for example I learned to dress in ways that were respectful but with which I felt comfortable.

Language and interviewing

The first six months of my study (October 2006 – March 2007) were spent intensively learning Arabic in Cairo. It is an immensely challenging language for a western speaker, even one trained in languages. Nonetheless, by February I was able with my teacher’s help to produce my questionnaire. I make no claims for my Arabic; it simply allows me to make basic conversation. Moreover, the Cairo Arabic I had learned did not prepare me for bedouin dialect: I had to abandon half of what I’d learned within my first two or three interviews. However, I achieved my aim, which was to attain sufficient competence to conduct my interviews myself, with help. The impact of having functional Arabic on my fieldwork cannot be overstated. It meant I could make eye-contact with people as I questioned and they answered; offer a human reaction to their answers; share jokes; have three-way

47 This honorary title has been bestowed on me in advance of my having earned it! I have tried to disavow it as too many people take me for a medical doctor, but it has stuck.
conversations with Mohammed and my interviewees; in other words, speaking even ungrammatical Arabic turned me from an observer into a participant. (Photo 3.4 below).

In Katriin, a high proportion of people make their living from tourism and are used to foreigners. That, coupled with Mohammed’s insider status as a Jebeli, allowed us to ask more detailed questions in the village: interviewing felt less intrusive on home ground (confirming a point made by Punch 1993: 187). Outside it was different: it was not that people distrusted me, Mohammed explained, rather that they expected not to understand me due to my foreignness. (One young boy remarked in a loud stage whisper: ‘Her language is really like Arabic, isn’t it?!’) At times, conversation was laborious and I had to content myself with cordial smiles and partial data. If an interview proved difficult I chose to lose data rather than irritate my host. This was rare. Four interviews were conducted in English where my interviewee was fluent, usually due to working with foreigners.  

I intended to interview men and women separately, but because Mohammed is well-known in Katriin, in most cases I was introduced to a mixed group: within families at home activity is collective, and attempting to separate people would have been constraining and intrusive. I had also intended to work with a female assistant; but a better understanding of bedouin gender dynamics showed how that would have curtailed my work. I was able to access groups of men (where I was treated as an honorary man); while as a woman I could still speak to women. However, my few interviews with women and girls alone showed a

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48 7: 09/05/07; 37: 12/07/07; 57: 31/07/07; and 76: 11/05/08
49 This advantage of female anthropologists is well-recognized: see for example Lavie (1990). Stewart (2006). Lavie discusses the oddity of life ‘between genders.’
predictable difference in the information they felt able to share without a man present, especially on the topics of health and their personal aspirations.\(^{50}\)

**Executing my study**

My study began in 2006 as a one-year MPhil which expanded into a PhD. I had intended to assess the impact of the Protectorate on the Jebeliya in Katrin, focussing on the livelihoods of the families Perevolotsky and others studied in the 1970s. My early interviews soon convinced me that my frame of reference was too narrow. The Protectorate was only one of many factors that had impinged upon bedouin life in the past forty years. The study expanded into a broader investigation of bedouin experience of development – including conservation – over a wider area.

From my base in Cairo I made repeated short visits to Katrin in my first six months’ study (from September 2006), followed by four months’ living continuously in the community in 2007. Further short visits and months of residence followed in late 2007 and throughout 2008 and 2009. Over three years, then, I lived for approximately twelve months in my study site and continue to visit regularly. My primary methods of data-collection were participant-observation and a semi-structured questionnaire (chosen for reasons explained below). My information and consent form, questionnaire and household survey are reproduced at Appendix 2. I collected qualitative as well as quantitative data through the questionnaires, and for the two years when I was interviewing (2007-2008) kept a detailed diary recording observations, conversations and my changing responses throughout my fieldwork. Living in the community enabled me to forge relationships that were often more revealing, over time, than the interviews themselves.

With Mohammed, I interviewed 122 individuals living in 36 locations in the town of St Katherine and adjacent areas comprising most of the inhabitable parts of the Park and its immediate surrounds (Map 3)\(^{51}\). 82 of these individuals - almost all heads of household - also provided me with household information. The aggregate number of household members covered by interviews in Katrin (234 people in 34 households) represents roughly 10% of the upper estimate of the Jebeli population (which varies from 1500 and 2500); aggregate household numbers for the whole study (641 people in 82 households) cover approaching 10% of the estimated bedouin population in and around the Park, which hovers in the literature around 6500 -7000 (Hobbs 1996, Grainger 2003).

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\(^{50}\) Gender issues are not the focus of this study. However, the impact of many factors I document (eg grazing restrictions, increased tourism and Egyptian settlement) falls unequally on women, with substantial and rapid social effects that urgently require a focussed study of their own.

\(^{51}\) I have not plotted or named exact locations to safeguard confidentiality.
Access to information

In addition to field data this study rests on information derived from a body of literature, much of which is unpublished, dealing with Egyptian conservation policy and practice. Some of this I unearthed from the library of the American University in Cairo, who were kind enough to give me a reader's ticket. Most, however, I have had access to thanks to my personal circumstances: while living in Egypt my husband was based in the Egyptian Environmental Affairs Agency with a brief to improve the effectiveness of biodiversity monitoring in Egypt's PAs. I thus had access to internal management documents and reports, including raw data, that were not in the public domain. Additionally, his long-standing research programme in St Katherine, alongside Dr Samy Zalat, involved me peripherally with academic ecologists and conservation practitioners for many years before this study was conceived of: this gave me access to unpublished theses and obscure publications that enabled me to build my case. While living in Egypt I talked regularly with the first Director of the Protectorate; and I have subsequently interviewed the current Director, his deputy, and a number of rangers, all of whom took an interest in my research-based community initiative and gave generously of their time. I have benefitted vicariously, then, from knowledge and contacts accumulated over many years of work by others.

Study design

Through my academic contacts I knew of environmental and livelihood studies carried out by Israelis during the Occupation, and decided originally to compare current developments with these baseline studies. This approach was pertinent since there are few or no studies that evaluate the social impact of conservation in a Protected Area from baseline data collected before its establishment. The main focus of comparison was the work of Avi Perevolotsky and his fellow researchers, who from fieldwork in the late 60s and mid 70s produced detailed analyses of high mountain horticulture and semi-nomadic pastoralism as practised historically in the St Katherine area (Perevolotsky 1981; Perevolotsky et al 1989). I described these systems, based on his analyses, in Chapter 2. Perevolotsky named and located the owners of flocks and orchards in and around Katriin in the 1970s. As well as describing ecological parameters and quantifying the economics of agricultural production he ran a survey of household economics with fourteen unnamed families. Since the population of the area is comprised almost entirely of Jebeliya, whose tribal structure and locations have been described (Rabinowitz 1983; Zalat & Gilbert 2008), my initial intention

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52 Dan Brockington, pers comm
was to track down the descendants of Perevolotsky’s named respondents and interview them about their livelihoods today and the factors that affected them, including the impact of conservation measures. I also hoped to repeat Perevolotsky’s household surveys.  

My original aim, then, was to produce a longitudinal study of Jebeliya experience, comparing historical livelihoods with current post-development experience. All the information would stem from within the St Katherine Protectorate, enabling me to detect possible impacts of conservation. The fieldwork for this study in 2007 revealed scope for expansion to make spatial as well as temporal comparisons: I decided to investigate the current experience of other Bedu living both inside and outside the Protectorate, to establish whether it exercised a detectable influence on people’s lives.

In the event this aim was thwarted by unreliable maps, the geography of settlements, and people’s uncertainty, at the peripheries, as to whether they lived in the Protectorate or not. However, as I started interviewing people in the wadis in 2008 it became very clear that real differences of experience were detectable between the more urbanized Jebeliya in Katriin and the rural population outside, irrespective of their relationship with the Park. The focus of the expanded study, then, shifted to an urban/rural perspective. The broad scope of my questionnaire made it possible to investigate development impacts on a wider scale while still gathering data specific to conservation.

**Sampling**

Of the 122 individuals interviewed, 61 were from Katriin and 61 from outside (Map 3 p64). The Katriin sample were almost all Jebeliya, who comprise the great majority of its bedouin population. The other half, from outside Katriin, comprised members of other tribes living in developed areas or oases close to the road, with a few from the rural outskirts of larger towns. Most lived in villages of varying remoteness, or isolated small settlements of five or six houses, some as much as an hour’s jeep ride from the road.

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53 With this in mind I wrote to Avi Perevolotsky, who generously offered to translate his original notes for me provided I would come to Israel to get them. The resulting visit in July 2008 was richly productive and put me in touch with some of the most eminent scholars of bedouin life. However, it was not an easy decision to go, and some Egyptian colleagues found it hard to accommodate.
I adopted a twofold sampling strategy. In Katriin my sampling frame were the 19 Jebeliya lineages (3a’ilat) and 5 Awlaad Sa3iid lineages named by Perevolotsky (1981; 1989) and Marx (1980). Data were collected following a matched-pair design, matching original families with their present-day counterparts and interviewing family members as closely related as possible to the 1970s interviewee. Mohammed and I interviewed at least one member of the 19 Jebeliya lineages, and 3 of the 5 Awlaad Sa3iid. There were 47 original named individuals; we interviewed 45 members of their families, of whom 27 (60%) are of a known degree of close relationship; child, grandchild, etc. In two cases we interviewed the original interviewee (one of whom has sadly since died). Thereafter we completed the remaining Jebeliya lineages.54 We did this systematically, interviewing at least one member

54 The purpose of completing the lineages was to investigate historical patterns of wealth distribution. All the original sample were flock- or orchard owners: I hoped to investigate whether and in what circumstances their descendants had retained, built on or lost their capital, and similarly track the experience of families who lacked
of every remaining lineage from each clan in turn, and discovering a previously unrecorded lineage (Abu Tabikh) in the process (bringing the total to 29, as shown in Appendix 1.2). Individuals from Jebeliya lineages not included in the Israeli research were chosen from Mohammed’s networks, or according to a snowballing process, following up contacts suggested by others. These individuals were therefore as selected haphazardly, by the best process possible in a large but uncensused community.

**Map 4: St Katherine study areas, 1970s vs 2000s**

Seasonal transhumance and high mountain horticulture led 1970s researchers into the whole high mountain area. Discontinuation of pre-development livelihoods confined my research to the town.

As Map 4 (above) shows, the 1970s interviews were done in the (then) new settlement of el Milgaa and the whole surrounding high mountain area, whereas my ‘inside St Katherine’ area covered only the urbanized town centre (including el Milgaa), outlying settlements that have sprung up along the road and a major adjacent wadi. I did not replicate Perevolotsky’s capital to start with. That part of the study was abandoned in favour of spatial questions; but I have the data and hope to follow them up.

55 St Katherine is the Jebeliya tribal centre; only a handful of Awlaad Sa3iid live there permanently. I included them with the ‘inside St K’ group, and treated the rest of the tribe with the ‘outside’ sample. As I explain below, analyzing my data by tribe produced the same results as a spatial analysis, legitimizing the decision to split the Awlaad Sa3iid between the two samples.
area for practical reasons. First, many of the settled areas I wanted to cover did not exist in the 1970s. Secondly, whereas the Israeli researchers had made long exploratory treks into the high mountains, interviewing people they came across in gardens and wadis, it would have wasted our time to do so: with seasonal migration and many mountain gardens now abandoned by town-dwellers, we had a much better chance of finding people at home in Katrin.

My ‘outside St Katherine’ sample was drawn from tribes from the north-east, north, west and south-west of St Katherine (Map 3, p64). To the east and south, the mountainous terrain makes the few settlements hard to access; towards the eastern border of the Protectorate, residents look to the coast rather than Katrin. I made a conscious choice not to deal with the very different issues that affect the coast\textsuperscript{56}, but interviewed a small number of Tarabin, some of whom are still mobile, to reflect those who pass in and out of my study area. The main areas where people have settled outside St Katherine border the road constructed originally by the Israelis. This forms the major east-west axis across the southern half of the peninsula, defining the northern boundary of St Katherine Protectorate through W Sheikh, and the southern boundary of Taba PA through W S3aal. With a few short spurs serving the main conurbations, this is the only road in the peninsula, universally known simply as ‘The Road’.

Deriving the new sample outside Katriin was not straightforward. The aim was to produce a random sample, but as noted this proved virtually impossible. Instead, I chose a proportional approach. Of the 61 ‘outside St Katherine’ interviewees, 51 were members of the principal tribes resident in the inhabitable areas in or around the Protectorate (25 Awlaad Sa3iidd, 14 Mzeina and 12 Gararsha), each sample roughly proportionate to the percentage of my study area accounted for by their territory. A further ten were chosen opportunistically, but roughly proportionately, from adjacent tribes who impact life in my study area, moving in or out to live for periods or permanently, as tourist guides, for other work, or on seasonal migration. The sample, then, was stratified by tribe, but haphazard in execution: we would travel to a tribal area by arrangement with an interviewee chosen, as before, from Mohammed’s network or suggestions from within it, and would then follow up our interviewee’s contacts in that community. Some communities were so small we interviewed someone from almost every household.

Table 3.1: Respondents by gender

<table>
<thead>
<tr>
<th>Tribe</th>
<th>Male</th>
<th>Female</th>
<th>% women sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jebeliya</td>
<td>37</td>
<td>24</td>
<td>39</td>
</tr>
<tr>
<td>Awlaad Sa3iidd</td>
<td>23</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Sawalha</td>
<td>2</td>
<td>1</td>
<td>33</td>
</tr>
<tr>
<td>Gararsha</td>
<td>10</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>Aleygat</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mzeina</td>
<td>12</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Laheiwaet</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tarabin</td>
<td>3</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>89</strong></td>
<td><strong>33</strong></td>
<td><strong>27</strong></td>
</tr>
</tbody>
</table>

Source: my data

Table 3.1 breaks down my sample by tribe and gender. Of my Jebeli interviewees, 37 (61%) were men and 24 (39%) were women, with an age range of 16 to 88. Outside Katriin I interviewed 52 men (85%) but only 9 women (15%)57, aged between 10 and 75. The percentage of women in my sample overall roughly matches official figures: 30.6% urban, 28.2% rural, mean 29.4% (Governorate of South Sinai 2009). My sample spanned the whole social spectrum, from very poor people to one of the wealthiest sheikhs in South Sinai. We interviewed eight sheikhs or gaadi (tribal judges): three Jebeliya, two Mzeina, and one each from Awlaad Sa3iidd, Sawalha and Gararsha. Distribution of estimated earnings across the sample appears in Fig 7.13.

Questionnaire design

My questionnaire covered a wider range of issues than might be expected, given my conservation focus. First, I included questions from a literature review of earlier work,
creating headings on demographics, education, traditional livelihoods and wage work with which my questions broadly correspond. Secondly, it covered issues included in the Bedouin Support Programme; that is, the element of the Protectorate project designed following consultation (Hobbs 1996; Hobbs, Grainger & Bastawisi 1998). These priorities were acknowledged by Grainger (2003) to fall outside the typical remit of a National Park (eg primary health care and veterinary provision), but were included to foster goodwill. I also included questions, usually open, encouraging people to talk freely about their perceptions of their community, aspirations for themselves and their children, and their views about the environment and how to conserve it, that would inform the work of the Foundation. The questionnaire was vetted and tested by bedouin friends, and corrected and shepherded by Dr Samy Zalat through approval by the security service.

Household survey

At the end of the main interviews I asked heads of household to tell me how many people lived in their household; ownership of consumer durables; purchase of commodities; and how much was spent on food per week. At the beginning I naively expected that men would need to consult their wives, but quickly learned that bedouin men do all the shopping. Women throughout this area are kept at home, safe from the prying eyes of strangers.

My consumer durables list was a shortened version of the Egypt Demographic and Health Survey 2005 (Zanaty & Way 2006) adapted for the area (no sofas or bicycles) to permit comparison (Table 7.6). My food list dealt with items other than the staples defined by Perevolotsky (1981): flour, rice, oil, tea, sugar and lentils (which I confirmed remain the key staples). I used expenditure on food as a proxy for earnings: it was felt at the consultation stage to be less sensitive than asking people what they earned, and government figures also collect this figure to estimate poverty, permitting me to make valid comparisons (Fig 7.15). My non-staple list (shown in Appendix 2) was compiled on the basis of observation: products I had seen in local stores and homes; products people asked me to bring for them; obvious luxuries to test the upper range; and some from Perevolotsky’s 1970s list. It was indicative, not comprehensive. Spatial and historical comparisons of my findings are made in Tables 7.7 and 7.8.

In order to calculate the relative currency values shown in Chapter 7 I extracted currency equivalents from the literature (Glassner 1974; Perevolotsky 1981 & 1989; Lavie 1990) where values are given variously in US dollars, pre- and post-1967 Egyptian Pounds (LE); Israeli Lire (IL) and revalued New Shekels. Comparative values were derived by multiplying or dividing the baseline value by its known purchasing power in the target year. Purchasing power values were provided for US dollars by MeasuringWorth.com, and for the other currencies by equivalents drawn from the literature. So for example, the World Bank
calculated life ‘on the breadline’ in 1999 at 40 cents per person per day. To calculate its equivalent in 2008 I multiplied it by its known purchasing power ($1 in 1999 = $1.29 in 2008[MeasuringWorth.com]), giving a current value of 52 cents (Table 7.5).

Recording information

My first year’s interviews were recorded (with permission) on an MP3 player/recorder which I downloaded daily to my laptop. By the following year my Arabic was better and my MP3 broke. I then abandoned recording and printing out forms, and wrote up replies in an A4 notebook. In addition I kept a notebook constantly at hand. I wrote up my notes every day or two in a personal fieldwork diary recording happenings, impressions and responses (a process I started before my fieldwork began).

Quantitative and qualitative analysis

My questionnaire resulted in a mass of qualitative responses as well as quantitative data. At the end of my fieldwork I had handwritten notes from interviews - almost half of which were recorded - with 122 people in 82 households. I had entered my data contemporaneously onto two Excel spreadsheets, generally typing up in the morning information gathered the previous day. I took two approaches to analyzing qualitative data. First I coded all attitude and opinion variables placing responses on a scale ranging from -3 (strongly negative) to +3 (strongly positive). Converting my qualitative data to numerical values enabled me to use ANOVAs and chi-squared tests to assess the significance of spatial differences in attitude as well as practice. It also enabled me to use Principal Component Analysis (PCA) to identify broad patterns of association in my data. This helped me ‘see the wood for the trees’ by producing, from the original intercorrelated variables, a limited set of statistically independent axes of variation which I could then interpret. Using this analysis on such a wide-ranging set of variables - both factual and perceptual - produced an illuminating picture of a highly diverse group of people. Along different axes of variation are clustered attitudes and attributes that invoke, for example, community-minded, forward-looking people who foresee their children entering professional jobs; conservative older people who yearn for the old days, think life has changed for the worse, and often feel ill; young parents who worry about the quality of their children’s food; young men who do not keep animals and want to better themselves; wealthy, older men who would like to see an improvement in bedouin relations with the state; and many others. Some axes were clearly correlated with age or gender. The most significant axes usually grouped attributes associated with mature men, showing positive associations with marriage, children educated to primary level, paid work, owning a flock and orchard, buying in fodder for animals, using medicinal

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58 I am indebted to Francis Gilbert for his advice on appropriate analytical tools and their use.
59 Variables reproduced in Appendix 4.1, key axes and their interpretation in Appendix 4.2.
herbs, and seeing tourism and agriculture as future growth areas, all characteristic of an ‘average’ male Bedu in middle life. However, the application of this form of analysis to perceptual as well as factual variables makes essentializing approaches impossible: by producing patterns from individual responses it dispels any notion of a blanket ‘bedouin’ response to development.

Second, the qualitative data provided a rich set of texts and transcripts providing much insight into people’s lives. I elected not to use NVivo to analyze these data. By the time I came to analyze the material I had written up all replies at least twice and the more memorable ones three times: in my notes during the interview or conversation; in my diary entry; and again in my spreadsheet. In some cases people’s words were branded on my memory. I colour-coded qualitative replies in my database to facilitate retrieval. Apart from the memorable nature and opinions of many of my interviewees, and the memorable circumstances in which many of my interviews took place, constantly revisiting my material made me familiar with it.

**Conclusion**

The personal background I brought to my research has affected every aspect of it. My role as a development practitioner provided an official rationale for my investigation, and also gave me a strong sense of responsibility to the people who shared their perceptions with me. My study benefitted from many years of contact with academics and practitioners in St Katherine, and I fear those relationships may not be enhanced by the critique that follows. However, some of those contacts, my dual role, my newly-acquired Arabic, and above all the social skills of my field assistant helped me to form productive relationships in the community that have deepened the scope of my study and influenced how I represent my respondents. I have striven to reflect a range of individual experiences and responses to life in Katriin so as to counteract essentialized notions of a single ‘bedouin’ response; while using my analysis to show trends and shared perceptions.

I move on in Chapter 4 to consider the two major waves of development that have affected South Sinai Bedu since 1967 - the Israeli Occupation, and its subsequent return to Egyptian rule - through the dominant discourse of the times; and I point to the role of ‘development’ in producing St Katherine, in order to contextualize the establishment of the Protectorate, the subject of Chapter 5. What follows, however, is the first of the paired ‘interludes’ I have described, illustrating ‘Life as Lived’ inside and outside Katriin.
Life as Lived: a day in Katriin, a day in the wadis

May 2007: Katriin: Wadi Shreij

4.45 am : al fajr (daybreak prayer)

Silence. It is dark. The moon is setting behind Jebel Ahmar. But for a light breeze, the wadi is perfectly still. A low rumble of prayer stirs and gathers force, rolling out like cloud to envelope the sleeping village, lulling the faithful into wakefulness before mounting to the great sung declaration of faith: ‘Allah –u akbar!’ Allah –u akbar! ‘Ashaed-ana la ilah illa Allah! (God is great, God is great! I attest that there is no god but God....) Come to prayer....prayer is better than sleep!

A single cock crows in a nearby orchard, crowing legally now\(^{60}\). A dog barks; others join in. A sheep coughs, penned in a yard on the hill. Between the cleft of the eastern mountains, rose-red ribbons of cloud streak the sky. As the light grows, Arabian warblers\(^{61}\) start their day’s foraging in the orchard, and coach engines grumble into life at the crossroads. Several hundred tourists will soon be down from their climb to watch the sun rise on Jebel Musa; cold, tired and anxious to get back to Sham, their loungers and their breakfast. A camel groans somewhere, a donkey bellows. Katriin is waking up.

Footsteps crunch in the wadi bed; a garden gate creaks and bangs. Mansour is in his orchard by six most mornings, a padded jacket over his jalabiya\(^{62}\) against the early morning chill. Today he will check the damage done to his almonds by yesterday’s high winds. The big sal variety should have survived, but the little soft-shelled fark will have suffered. The orchard needs constant attention to thrive and produce fruit. Mansour is lucky that his is so near the village. Friends whose orchards are hours away up in the mountains have all-but abandoned theirs; it is impossible to tend them properly and hold down a job in the village. But there’s no choice: a wage is essential with prices constantly rising. It’s not like the old days, when a man could keep his family for months from his orchard: it provides only pocket-money these days, and treats for the family. Mansour worries about his well; water has always been plentiful in Wadi Shreij, but last year for the first time even Saelim’s well at the head of the wadi was dry, and his ancient mulberry did not fruit. Normally by now Mansour would be watering his trees every day; this year he rations them to once a week, though he knows this makes them more pest-prone. Mansour works his way between the trees, checking leaves for signs of scale insects. He will wash them off with water; they can

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\(^{60}\) After the wholesale poultry cull due to bird flu in 2005, some people kept birds illegally until the ban was lifted in late 2006.

\(^{61}\) Sylvia leucomeleena

\(^{62}\) The standard long tunic, grey, beige or white, worn with undertrousers. The signature kaffiyeh (headcloth) of South Sinai is worn without securing rings, and is lavender blue.
seriously reduce his yield. The leafcutter bees\textsuperscript{63} have got at the quinces again, he notes. But he won't find out till tomorrow what people in the wadi will know today: that today is the day for sarsur al mishmish, the Apricot Cicadas\textsuperscript{64}, which will emerge this morning in their thousands, filling the air with a pulsing electric shriek. Just a day or two and they will be gone; but they can damage the trees and wreck the crop. This will not be a good year for the orchard. But – al hamdulillah! Thanks be to God! God tests hardest the ones he loves the most.

By the time the cicadas emerge to infest Mansour’s apricot trees he is well out of earshot, down in the village, working at his day job as a mechanic for the Mahmiya, the St Katherine Protectorate. The work is steady and he is grateful to have it. His cousin has spent years trying to get a job there without success, despite his many skills. He thinks of his friend Ramadan, a Community Guard for the Mahmiya for several years. Last year he was sacked abruptly, given no reason. Ramadan pleaded for his job, even used up his savings taking them to court; but it was no use. If anyone works for the Mahmiya their whole family needs security clearance, he’s been told. So who in Ramadan’s family might have skeletons in the cupboard, wonders Mansour? Ramadan doesn’t know; but he feels betrayed, and will never work for the Egyptians again. So yes – Mansour is lucky to have his job, even though it can be a thankless task. When Dr John was in charge of the Mahmiya, he reflects, there were good vehicles and money to maintain them. Since the Egyptians took over there is never enough money: vehicles lie idle for lack of spare parts, and even the smallest purchase has to go out to tender. ‘Three written quotes for a new headlamp!’ he complains, and then the quote has to be rubber-stamped in Cairo. It’s easier to buy the parts himself, he says, though it takes months to get his money back. But at least then he can get on with his job. He wishes he could give up this work, spend more time in his garden, lead treks in the mountains; but an old knee injury makes it painful to climb, so he sticks to his spanners, and takes pride in his skill at keeping the aged jeeps on the road. ‘This one is forty years old!’ he jokes. Older than me!’

\textsuperscript{63} Megachile submucida
\textsuperscript{64} Cicada sp
August 2008: ‘Wadi Helw’

5.15 am: al fajr (daybreak prayer)

Another day. Aswil rises early as a first inkling of pale grey light filters through tattered palm thatch. Lifting his prayer mat from its hook he lays it down in the courtyard, turning south-east. Bowing his head over hands clasped at his waist, he begins his prayer. *Allah-u akbar, Allah-u akbar....* The light grows rosy as Aswil replaces his mat. On the crest of the granite rise across the wadi from the little settlement, a shinar\(^65\) rattles out an early morning warning to its covey on the ledge below. A desert lark\(^66\) gives a preparatory trill nearby. Further down, hares\(^67\) forage on the dry, dark desert pavement; there are just enough plants for them but not enough for Aswil to keep any goats.

Aswil twists his lavender-coloured headcloth over and round his head. He pokes the embers in the open hearth in the courtyard and blows a fire into life. He measures two teaspoons of tea and four of sugar into a battered white enamel coffeepot, half-fills it with care from an almost empty jerrycan and sets it on the fire. He brings down a plastic bag from the nail where it has hung to keep the ants and mice away, and tugs off a ragged piece of yesterday’s flatbread. If he puts it back on the fire it will puff up a bit and be easier to chew. *Bismillah ar-rahman ar-rahim!* (In the name of God, the Compassionate, the Merciful!) He breaks the bread in pieces and eats slowly, reviving with his hot sweet tea.

Aswil is hopeful of getting work today. If it happens - insha’allah! (God willing) - it should last some time. He’s hoping to help with digging the well that they need here so badly. All the local families, thirty or so people, have put what they can afford into a fund to dig the well, though they worry there won’t be enough to do the job properly. With the water 35 meters deep it’s going to take time, and they could use up all their money digging in the wrong place. He would give his help if he could, but he can’t afford to work for nothing. He has to earn something, with prices rising like this. Only last year, Aswil reflects, a kilo of lentils was 3 LE; now they are 17 LE\(^68\). He does what he can; picks up odd jobs here and there, collect stones for sale at the Monastery. But there’s no regular work here so there’s never enough food. They are seven in the house; sometimes he can only afford to buy flour. At least then they have bread, thank God. But life is hard. There is no work here, no well, no electricity, no school, no clinic. His baby son died last year because there was no way to get him to hospital. Life is hard.

\(^{65}\) Chukar Partridge (*Alectoris chukar*)

\(^{66}\) *Ammomanes deserti*

\(^{67}\) *Lepus capensis*

\(^{68}\) Between 2007 and 2008 the price of lentils jumped from 25 pence to over £2 per kg; other staples did likewise.
The well-digging will be a real help, if it happens; it should pay better than collecting stones. Over the hill is a broad plain, strewn with the detritus of a recent camp: after he has eaten Aswil will walk over there, surveying the darkened areas with shreds of straw showing where goats and camels have eaten, slept and staled; the ashed-down remains of fires; empty corn husks; a plastic sandal; at one end a heap of spherical stones; all abandoned yesterday when the Tarabin packed up their tents and moved on. Aswil gave up his chance to go with his cousins this time, to search for stones on Jebel Gunna or make charcoal in the mountains, but he might still make a bit from the stones they left behind. Aswil sifts through the abandoned pile of geodes looking for good ones; when split, many reveal flower-like patterns of crystals. Tourists will pay good money for the best ones. He stows a few in his canvas bag. He will send Saelim and ‘Abdullah, his sons, back for more. What chance is there that life will get any easier for them?’ he asks. They shouldn’t be picking up rocks; they should be at school, but none of his children goes. He is not proud of it. He explains it away by complaining that the school in the village only admits Jebeliya, not Tarabin like them. But the truth is he cannot afford to send them; and even if he could, it is 7 km away. Young children cannot manage such a journey on foot twice a day, over granite outcrops and soft sand. By the time they can cope with the walk, it’s time for them to leave!’ he says.

Their mother and older sisters have to manage it, though, and they’ll have to do it soon. They’ve husbanded their water carefully but it is almost gone, and the tanker is expected in the village. So they will walk down, setting off early to avoid the August heat, filling the heavy jerrycans from the lorry. If they are lucky her sister’s husband will bring them home; he has a regular job with a safari company and gets use of a pickup. But, Aswil reflects, it was different in the old days. Then, everyone lived life on a similar level. Now, some folk have jobs and cars while others can’t feed their family. In the old days, al kubar (the ‘big men’ in the community) had really big flocks: if a kinsman or tribesman was struggling they’d loan you sheep or goats to give you a helping hand. Nowadays it’s different: ‘The strong eat the weak’, he says: it’s every man for himself. They’ve asked everyone they can think of for help: the Sheikh, the Government, even the people with the European money. They’ve asked a hundred times, but nobody helps them. They’re all ta3baen - worn out with the struggle. Al hamdulillah! he says.69

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69 The community’s money was not enough to start the well-work; two years later the residents of ‘Wadi Helw’ are still waiting for water.
Chapter 4

The development of South Sinai

Making St Katherine

For fourteen centuries, Justinian’s fortress monastery at the foot of Jebel Musa was the only permanently-occupied building in what has become ‘St Katherine’. Jebeliya herders used the byzantine monastic ruins scattered throughout the area as winter shelter for themselves and their flocks, but in spring they moved on. When the Israelis arrived in 1967 they built a road, and administrative, military and research facilities (Perevolotsky 1981). As Sinai was integrated into an inflationary Israeli economy, Bedu settled, by choice or necessity, near to these new sources of work and wages. The ‘Bedouin village’ known to the Israelis as ‘Santa’ coalesced around the road, a group of small, low houses built from local stone. After 1982 the resumption of Egyptian rule saw rapidly accelerating ‘development’, kick-started by President Anwar Sadat’s choice of the Plain of Ar-Raha as the site of his new summer-house. The decision prompted the construction of more hotels (each with its swimming pool). In the past twenty-five years ‘Santa’ has burgeoned into a town with shops, hotels and restaurants, a bakery, an internet cafe, a central mosque, a post-office, two schools, a hospital, a large police station, a military base, a bank, a garage, a generator powering lots and lots of streetlights, and concrete apartment blocks to house Egyptian settlers. A newly-built triumphal arch on the inbound road welcomes visitors to ‘St Katherine City’.

The office of St Katherine Protectorate is centrally located in the town. I investigate later how all this ‘development’ has taken place around it, in defiance of its own rules and despite World Heritage Site status. Before that, however, I examine here the shifting constructions of place and people that have informed the development of South Sinai over four decades. This overview contextualizes the conservation approaches applied in St Katherine, which are the subject of Chapter 5.

4.1: Israeli Occupation 1967 – 82

Development: a ‘march of progress’

Martin Glassner published a study in 1974 of the South Sinai Bedouin under Israeli administration in which he describes a ‘march of progress’: roadbuilding, introducing primary education and healthcare, providing jobs for all and leading to a ‘transformation’ of the

70 Extending north from the Monastery, this is the biblical site where the Israelis of the Exodus are said to have camped while Moses received the Ten Commandments on Mount Sinai; it is sacred to Muslims, Christian and Jews.
economy. He commends the process of ‘sedentarization of nomads, an essential aspect of their acculturation to a modern industrial society’ and details the means: ‘[r]estrictions on wandering, raiding, and feuding, and government land-use controls.’ If and when the Egyptians return, he concludes: ‘they, too, will have to maintain an economy and society in which the Bedouin can continue to enjoy some of the better features of Western life’ (1974: 59-60). Under the Israelis, Bedu could afford such newfangled luxuries as canned meat, sardines and tinned vegetables, radios and even vehicles (Glassner 1974; Perevolotsky 1981; Lavie 1990).

From Glassner’s perspective, the Israelis brought jobs to Sinai, and the Bedu benefitted in their own terms from the security of regular employment: men made ‘big money’ working in Israel (workers building luxury hotels in Eilat could earn $16 per day when Bedouin average income was $4 per day 71). Some aspects of development under the Israelis were welcomed by Bedu, despite the militarization that came with it. Hobbs quotes members of the Gararsha and Awlad Sa3iid tribes (whose lands are outside the main tourist routes), citing the subsequent absence of work in the 1990s as justification for growing narcotics: ‘Twenty years ago every able-bodied man had a job. Now there is no work.’ (Hobbs 1998:71).

My respondents appreciated the Israelis’ provision of healthcare services, as did others (Gardner 2000: 53, Lavie 1990). The Israelis opened eleven clinics, staffed by bedouin male nurses (after a week’s training in Israel), backed up by fortnightly visits by (non-Arabic-speaking) medical trainees (Glassner 1974: 56-58). This system was romantically described in the Journal of the Israeli Medical Association as ‘...an elaborate healthcare service....providing modern, up-to-date, comprehensive medical services that were available to all free of charge’ (Romem et al 2002.) Nonetheless, I was surprised by how often people mentioned it. It was the first time any such service had been offered them, and was often contrasted positively with what was now available. Subsequently, with the exception of mobile clinics provided during the ‘golden age’ of Protectorate project funding, people in remote communities still have little or no access to healthcare. Paradoxically, as Lavie suggests, the impact of its withdrawal is most acute where people had become accustomed to more effective care, and knowledge of traditional methods had consequently declined.72 After 1982, as Lavie (1990: 81) succinctly puts it: ‘No more helicopters for snakebites.’

According to Glassner thirteen schools were also established, with bedouin teachers trained in Israel on a ‘one-week intensive training course’, and earning between $60 and $84 per month: at $2 -$3 dollars per day that was half to two-thirds of the average wage of a bedouin manual labourer. The way Glassner frames this account typifies much commentary

71 Although Gardner (2000) notes that Bedu were excluded from the city each night.
72 A possible explanation for the higher rates of maternal mortality and miscarriage reported by my respondents in Kabriin compared to in the wadis.
from the period. Details are prefaced by quotations from British colonial officials decrying Bedouin laziness and poor attitude to learning, and a dismissal as ‘extravagant’ of an Egyptian claim that Bedou had started sending their children to school. But despite what he calls ‘the Bedouin’s traditional disdain for formal schooling’, it emerges obliquely from the text that the schools have been established at the request of the local sheikhs, and built (or ‘jerry-built’, as Glassner puts it) by the Bedou themselves, with construction costs shared by cash-strapped local people with the Israeli Ministry of Education. He later comments loftily that: ‘they will send their children to school, once it is clear that education will have some value for them’ (1974: 53-56).

The presentation of information as self-justifying polemic makes it difficult to derive a contemporary picture of how or if people benefitted from these new developments, but Marx provides a refreshing antidote to Glassner’s hauteur. Glassner gives a straightforward account in a footnote of a development which brought work for the Bedou: ‘Neviot, an Israeli settlement, was founded at Nuweiba in 1971. Although the settlers do some farming, chiefly of tomatoes, melons and cucumbers... and some experimental fishing, their main business is tourism. They run tours to Bir Zrir, a nearby Bedouin encampment...They employ local Bedouin for much of their work’ (1974: 50). Marx, whose study of the Bedou spans almost half a century, presents this information from a completely different standpoint. The land on which the settlement was founded, he explains, belonged to and was farmed by Bedou before the arrival of the Israelis: ‘They well remember how the Israeli occupation authorities expropriated farm land and palm groves owned by the Bedouin in Nuweiba oasis in order to settle Israeli co-operative farmers’ (Marx 1999:344). Displaced from their gardens by Israeli settlers, the Bedou were then offered menial jobs working their own land and serving the new Israeli tourist initiative. However, unlike most writers Marx does not present Bedou as passive victims of these developments; some, at least, responded entrepreneurially, ready to exploit new opportunities. At Bir Zrir, the road passed quite close to the village. ‘They built a track to the main road, invested money in trucks and pickups, and became involved in transporting migrant workers and tourists. The population of the village actually grew.’

*The price of ‘development’*

Some Bedou, then, used the new developments opportunistically, working proactively with the new *status quo* to earn money for themselves and their families. This was essential, because while by general agreement the standard of living rose under Israeli administration, so did its cost. Clinton Bailey’s marvellous collection of Bedouin poetry transcribed from recordings includes a poem inspired by the ‘High Cost of Living under Israeli Occupation’. It is a complaint by the Aleygat poet ‘Atiyya Miz’an, a migrant worker in the oilfields at Abu Rudeis:
‘...A sack of flour, a box of goods, will cost a hundred pounds -
And then at home his wife complains, and he asks why she hounds.
She answers: after nights away, can’t you bring more than this?’

(Bailey 2002: 7.11)

The clearest evidence of the rise in the cost of living after 1967 is provided by Avi Perevolotsky in his two papers detailing the economics of orchards and herding by the Jebeliya in the high mountains of St Katherine (Perevolotsky 1981, Perevolotsky et al 1989). He conducted interviews with fourteen families to determine the monthly living expenses of a Bedouin family in the 1960s and in 1975. The results showed that the cost of living rose between five and ten times over the period, with critical results for the core traditional livelihoods of horticulture and herding described in Chapter 2 (Perevolotsky’s findings are compared with my own data in Chapter 7).

A common theme runs through much of the literature describing the economic changes affecting South Sinai Bedu after 1967. Perevolotsky (1981:356; 1989:163) summarizes it like this:

‘Jobs became common under Israeli rule and incomes were very high....Individual and household decision-making patterns have changed as a result. Bedouin chose to abandon the orchards, reduce herd size, and devote most of their time to wage labour....The economic prosperity and availability of outside employment caused the Bedouin to abandon traditional livestock husbandry’.

The pattern of cause and effect seems clear, but is not as clear-cut as it looks. As noted in Chapter 2, Bedu everywhere have chosen to supplement traditional occupations by working for wages, with shifting proportions of time invested in each area depending upon circumstance (and see Rabinowitz 1985). Resource management is a key bedouin skill. So was the new order so widely accepted out of enlightened self-interest, or was it in fact ever a matter of choice? Perevolotsky (1981: 348) explains what happened to the market for bedouin fruit under Israeli occupation, as described by his interviewees:

‘1: A disruption of trade and curtailed access to traditional markets left the local Bedouin with unsold fruit.
2: The competition with Israeli markets did not offer a substitute for lost Egyptian markets.
3: The opening of unlimited opportunities for well-paid steady jobs in construction and services both within, at local centers, and outside the region.
4: Rampant inflation in Israel and diminished subsidies of basic food products by the Israeli government have resulted in an increase in the cost of living.’

The need for cash was growing, then, even as their ability to earn it by traditional means declined. With no market for their produce, Bedu could not afford to invest the long hours and substantial effort needed to keep their gardens productive, whether they wanted to or
not. The effect was similar in herding. As the cost of living and inflation rose, and the need to earn cash increased, more people settled close to roads and population centres where work and transport to it were easier to access. This put immediate strain on winter pasturage close to settlements. The impact was severe. For the first time, regular supplementary food was essential to see them through the winter months (Perevolotsky et al 1989). This fodder had – de facto – to be brought in by road from Israel, meaning the Bedu had to pay a much higher price for it than Israelis themselves. Pressure on grazing and the cost of winter feeding required dramatic reductions in flock size if herding was to remain viable. Perevolotsky reports that the average size of a flock fell between 1967 and 1975 from 78 to 13 animals. Even at this reduced level, by 1975 anyone keeping a flock through the winter would actually be making a loss (1989: Table 7.1 and 7.2).

Before 1967, orchards and flocks collectively contributed close to the whole year’s subsistence costs to a Bedouin household; the orchard providing 50 –100 Egyptian pounds (LE), income sufficient for at least six months; and the flock, at the pre-1967 average size of 80 animals, yielding 31.5 LE, or approximately four months’ living costs – in addition to produce for family consumption. Before the Israelis, monthly living expenses for a family of six averaged 7–8 LE (Egyptian pounds), including food, clothing and medicine. The food budget was spent on imported staples: rice, sugar, flour, oil, tea and lentils, and the family diet was supplemented by nutritious fresh fruit and dairy produce from the orchards and flocks. Part of the staple food could be bought through the Tamwin (a subsidized government outlet) more cheaply than in shops, contributing to the low cash price.

Under the Israelis new commodities augmented traditional staples, and a new reliance developed on imported cigarettes (Bedouin traditionally smoked home-grown tobacco). Government subsidies disappeared (except for people working for the military, according to Glassner). In the new currency of Israeli lire, a month’s family subsistence costs (calculated in 1979) were 2000 IL. This would absorb the total annual income from an orchard. Income from herding did not feature by this stage, since keeping a flock would actually incur a loss. Living costs more than doubled in two years (from 855 IL to 2000 IL per month) between 1975 and 1977 (Perevolotsky 1981:350; and see Table 7.8). In these circumstances, the exchange of traditional livelihoods for wage labour looks less like an opportunistic choice and more like a matter of necessity.

Yet it is clear that the authors who studied these economic patterns in such detail want us to believe that it was a free choice. Glassner, Rabinowitz and Perevolotsky provide varying degrees of apologetic. Even the writers quickest to deny bedouin agency in other arenas seek to demonstrate that there was no compulsion involved here; that wage work was freely and rationally chosen; and that changes were nothing new. Perevolotsky (1981: 356)
explains that: ‘Bedouin sedentarization took place without any help, encouragement or pressure from the Israeli government.’ Rabinowitz explains that the Bedu were never serious pastoralists anyway: ‘Communities, even societies, are sometimes incorrectly associated with specific livelihoods. People may relinquish traditional occupations and, for whatever reasons, take up new ones; these may then be perceived by outsiders as the ‘cultural ‘trademark’ – that is, as an occupation allegedly pursued for centuries.....History, however, has often shown that actors tend to use the first opportunity (implying change) to engage in more lucrative livelihoods – be they traditional or newly-introduced ones.’ (Rabinowitz 1985:224)

Written history being the privilege of the literate, there is little information about bedouin reaction to the Israeli Occupation in the high mountain area. What there is suggests that Bedu-Israeli relations, whether at state or personal level, were ambivalent. The Israeli environmentalists and archaeologists based in St Katherine responded sympathetically to the Bedu and struck up friendships which, as I have witnessed, have persisted across generations to the present day. My interviewees attribute to the Israelis a respect of Bedu, their values and environment. They cite cases of family members airlifted to hospital in Eilat, asking whether I imagine ‘the Egyptians’ would send a helicopter to help a Bedu? They report that the Israelis looked after the natural world, that they ‘never damaged the night’ with streetlights and noisy generators. This approach occasioned many warm accounts of the Occupation, and had long-term repercussions which I explore in Chapter 8. However, Smadar Lavie (herself an Israeli who lived for four years in a Mzeina family, experiencing the reality of the Occupation from the bedouin perspective) dismisses the romanticism of Israeli approaches that construct the desert as ‘sacred, transformative space’, and view the Bedu as ‘living archaeological specimens from the Biblical era of Abraham’ (1988: 44). She castigates Rabinowitz (1987) for lamenting the impact of development on the Bedu ‘as if ‘development’ were independent of developers; and describes the sense of loss of one of his colleagues as: ‘the curious phenomenon of people’s longing for what they have themselves destroyed’ (1988: 43). Writing later, Heba Aziz (2000: 40) describes a persistent dislike of Israelis among Bedu on the coast, one informant calling them: ‘the enemy, the atheists’, a source of tourist income but not to be befriended.

At the state level, Gardner (2000: 51) reports a positive response to the Israeli Nature Reserves Authority’s protection of 98% of the coastline and employment of bedouin guards. Glassner (1974: 42) notes that in a classic divide-and-rule tactic (later continued by Egypt),

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73 By contrast, Smadar Lavie’s ethnography of the Mzeina details the nature of response and resistance at the coast with unsurpassable insight (Lavie 1990).
74 Interview 26: 25/05/07, and conversation 28/04/07, with two Jebeliya who experienced life during the Occupation and whose responses were typical.
tribal sheikhs were employed by the Israelis, who increased their formal authority but consequently undermined their role within the tribe. Lavie (1990) devotes a whole chapter to the problems this caused, quoting a Mzeina sheikh complaining: ‘For every government the sheikh is a Bedouin, and for every Bedouin the sheikh is the government.’ Hobbs (1995: 214) quotes a Jebeliya man’s view: ‘There was a lot of work under Israeli occupation. But work isn’t everything. There was also a lot of uncertainty and apprehension.... The Israelis inspired fear and restricted movement. It was a military system, not civilian, affecting all aspects of our lives. We were treated like animals’ (my emphasis). One of my own respondents, an ‘Aleygat man’75, used this same expression but glossed it differently. The Israelis, he said, acted as if from a ‘duty of care’ towards the Bedu. They ensured their physical needs were met, looked after them if they were sick and so on. They did this, he said, as the Bedu cared for their livestock, looking after them but seeing them as a different, lesser species. ‘They treated us like animals.’

Marx’ assessment (1999: 343) bridges the transition from Israeli to Egyptian government control:

‘Although the Bedouin have no share in (Sinai’s) mineral wealth and only a small stake in tourism, the region’s strategic location exposes them to the presence of armed forces and the dangers of sporadic foreign occupation. Even their land rights are frequently contested by other users. The most active and aggressive amongst these have always been agencies of the state, and in recent years, economic entrepreneurs, such as Israeli settlers or international hotel chains. These organizations pursued development agendas that totally ignored existing land uses... Wherever the Israeli, and later the Egyptian, authorities constructed military installations or economic projects, such as tourist villages and hotels, they dislodged long-established local populations and deprived them of their land’.

Marx has commented that the Israelis left Sinai just in time to avoid its becoming a colony of Israel; but that it now clearly operates as a colony of Egypt76. Bedouin experience of ‘development’ does not change fundamentally, whoever is in charge.

4.2: Egyptian rule post-1982

South Sinai’s demography

An entrenched civilian government – albeit a highly militarized one acting under semi-permanent Emergency Powers– takes a longer view of its strategic position and the economic needs of its citizens than does an occupying power. With the resumption of Egyptian rule, visions of South Sinai were produced less by academics than consultants and bureaucrats drafting government plans for a brave new world.

75 Interview 78: 11/05/08
76 Emanuel Marx, pers comm
Map 5: Territorial provisions of the Camp David Accords 1979

Source: Lavie (1990)
The 1979 Camp David Accords provided for the phased withdrawal of Israeli troops from Sinai. The whole of Sinai was restored to Egyptian control by April 1982 (barring a strategic neck of land at Taba which was not relinquished until 1989 (see Map 5 p 82); the division into northern and southern Governorates, or administrative regions, along the old Muslim pilgrim route followed soon afterwards (Mansfield 2003). UN forces still patrol Sinai to prevent military build-up, but the Egyptian police and military presence is highly visible and often intrusive. Even before the transfer of power had taken place, Egypt had drawn up plans to ensure that any future invasion of Sinai would be too costly to consider. The plan (produced for USAID by American consultancy Dames and Moore Inc in 1985) provided for the economic exploitation of Sinai at a level previously undreamed-of, and the settlement of five million people there within twenty-five years - 700,000 of them in the remote and largely desolate south. At that time, the most recent census (1960) indicated the population of the whole peninsula to be less than 50,000, with South Sinai accounting for just 4,355 people (SEAM 2005). With President Hosni Mubarak accelerating the economic policy of infitah ('opening-up') started in the Sadat era (Hinnebusch 1985), the stage was set for the development of tourism on a previously unimaginable scale. Whilst the wildest fantasies of the Dames and Moore plan have yet to be realized (the settlement target having dropped to three million [UNDP 2005]), the reality of what has happened in South Sinai in the past twenty years at times stretches belief.

From a baseline of about 4000 people in 1960 the population of South Sinai had risen by 1996 to almost 55,000, locally doubling every four years between 1986 and 1996 in major centres such as Sharm el Sheikh. The whole Governorate population was projected by government plans almost to treble again to 158,000 by 2008; however, these projections were based on gross overestimates of the numbers of Egyptian families prepared to settle in Sinai (SEAM 2005: 12), and the official figure today is around 66,000 - 80,000 (Governorate of South Sinai 2009; Central Agency for Population Mobilization and Statistics [CAPMAS] 2010), of whom anywhere between 25,000 and 40,000 may be Bedu. With the bedouin population thought to be stable (average growth rate 2.2% - 2.5% annually [SEAM 2005: 10; International Crisis Group [ICG] 2007: 12 ]), the whole increase is accounted for by the influx of Egyptian workers servicing tourism and government administration.

The rapid population growth has been matched by the development of a highly unusual demography. The trend predates the tourist boom: in 1960 the ratio of men to women was about 4.5:1, skewed by male migrant workers from the Nile Valley and Upper Egypt in temporary residence without their families. By 1996 the male/female ratio was still almost

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77 The results of the 2006 census, only just available at the time of writing (July 2010: www.msrintranet.capmas.gov.eg) suggest the resident population may now be 80,000, up to half of whom are classified as rural. In the past rurality has been used as a proxy for Bedu, but the increasing Egyptian population in St Katherine means this is now questionable.
2:1 (ICG 2007: 12), since the available work is casual and seasonal, and the economically active population young, single, mobile and male.

The Dames and Moore plan to fill Sinai with ‘productive’ people relied on people moving wholesale from Egypt to Sinai, with workers bringing their families to settle and develop the area. This idea was fundamentally misconceived. Egyptians have traditionally lived not in mobile nuclear family units but in extended families, often - in the rural Nile Valley - on family land. For a worker to move his family to Sinai would typically mean not only uprooting his wife and children but also relatives from their social networks and livelihoods, leaving the gregarious city or village, or the productive fields of the Nile Valley, for a spartan desert settlement. Unsurprisingly, few make this choice, preferring to work in Sinai for limited periods and remit their wages home. This makes Sinai’s demographics easier to understand; but they are still surprising. The SEAM report notes (2005:10) that: ‘The overwhelming majority (over 95%) of resort tourist staff in South Sinai reside without their families in dormitory accommodation - in 2003, over 28% of the total urban population - with over 90% being male workers’. As a result, the 1996 census recorded 3,476 males in Sharm and just 830 women: a ratio of about 4:1, with mining and oil centres even more skewed. Government planners expect this trend to continue, along with increasing urbanization. Planners now recognize that the resident population is unlikely to reach 700,000 by 2017: pressure on natural resources, and Egyptian love of balad (homeland) call the target into question. Nonetheless, state planning for the arrival of thousands of families has brought incidental benefits for Bedu in settled areas, where schools, clinics and hospitals have been built. My interviewees complained repeatedly that they are poorly funded and equipped, but they are widely used where available, and sought-after where they are not.

The tourist boom

By far the strongest driver of South Sinai’s growth has been tourism. The SEAM report notes that, directly or indirectly, tourism now accounts for some 11% of Egypt’s GDP, directly employing over 1.2 million people. Egypt’s economy is heavily dependent for its foreign exchange receipts on externally-generated income, notably from oil, the Suez Canal, remittances by migrant workers and tourism. Of these the most important is tourism, accounting for 37.5% of all foreign exchange in 2000. Foreign exchange from tourism rose from $712m in 1980/81 to almost $4.6 billion in 2000 (Abderrahman 2004:101).

Sinai is a major contributor to these revenues, receiving 2.6 million visitors in 2003: more than one-third of the national total (ICG 2007: 13). As soon as Sinai was back in Egyptian control its development as a prime feature of the Egyptian economy began, building in

78 I cannot comment on facilities outside St Katherine, but in Katriin my personal observations corroborate my respondents.
many cases on infrastructure and initiatives started by the Israelis and often employing similar tactics. These included the expropriation of Bedouin land (Marx 1999, Gardner 2000, Aziz 2000, Chrostowski 2002, ICG 2007). The Ministry of Tourism’s long-term targets, published in 1992/93, were exceeded within five years in South Sinai, by 60% in Sharm and 100% in St Katherine; the response was to revise the targets upwards (Shackley 1999: 545). Egypt’s tourist industry grew by 38.4% between 2003 and 2004 alone. This growth rate is expected to level out at around 7.5% per annum over the next decade (UNDP 2005).

What effect has South Sinai’s booming tourist industry and mushrooming population had on bedouin livelihoods? Trailing behind tourism, oil and administration, the SEAM report (2005:41) lists ‘the most minor contribution to South Sinai’s economy: animal husbandry, agriculture and fishing, all pursued in large part by the Bedouin population’. Like Bedu in other parts of the region, people in South Sinai tend to revive their traditional occupations in response to a lack of paid work (Marx 1999). However, Sinai’s tourist boom has created thousands of jobs. Seen from a neoliberal development perspective, there seems no reason why the trickle-down effect should not provide Bedu with their share of the wealth generated by tourism: ‘Bedouin marginalization and exclusion is not as large an issue as some may seem to believe. Given the expected huge expansion of tourism in South Sinai it is difficult to see how the relatively small numbers of Bedouin cannot gain an expanded role...’ (SEAM 2005:20, my emphasis). However, Bedu are rarely employed in tourism other than as desert guides and drivers for adventure tourism – a type of tourism acknowledged to be numerically insignificant (SEAM 2005:43). Aziz comments: ‘State officials...would argue that Bedouin are incapable of working – an excuse for the alienation of Bedouin from the path of economic and social development in their own communities’ (2000:28). The ICG (2007: 13) records that in 2002, the 110 hotels in Sharm created 10,000 – 30,000 direct jobs, yet almost none were offered to Bedu. Only Egyptian operators are permitted to run events, including desert safaris: ‘Bedouin parties without Bedouin’ as the ICG describes them (2007:13).

In fact, as might be expected, although most have remained poor and marginal some Bedu have worked with the changes and done well. Anna Chrostowski (2002:17) describes how some Mzeina families in Dahab became rich almost by accident:

‘In Dahab, families settled on land that was formerly collective Mzeina land. When the government issued its new land laws in the 1980s, which allowed private ownership, this settlement became legalised and each family could claim an ownership licence for the land which they settled in. These were quite substantial amounts of land, along the coastline, which is now the most sought-after land due to its good location......The selling of land was not allowed for ten years, so that the majority of Bedouins rented their places to Egyptians who would run cafeterias or camps. Since 1995, Bedouins started selling their land on a large scale for high returns.... ‘In the beginning a square
metre was sold for 10 piastres (one-tenth of an Egyptian pound). In 1998 it was worth 200-400 LE (Oostra-Hostettler 2001).

Chrostowski comments that the majority of these land sales were not forced upon the Bedu, many of whom have reinvested their profits into new ventures such as hotels. She adds that the consequence of these sales, in 2002, was not clear. One consequence, alleged to me by an EU Programme Officer, is the emergence of a category of person new to South Sinai: the bedouin millionaire. Chrostowski uses the example of a wealthy Mzeina family who owned one of the biggest local dive centres in Dahab to illustrate her interesting study of power-relations between the bedouin and Egyptian communities. She concludes (2002:17) that the relationship ‘can currently be better qualified as two competing but interdependent systems of ‘opportunity-hoarding’ rather than a system of exploitation’. Her conclusion is partly drawn from the ability shown by Bedu, particularly young men, to create specialist roles for themselves: making themselves indispensable by providing the only services to tourists – desert transport and guiding – for which Egyptian workers cannot compete. As with Marx's example of Bir Zrir, some Bedu play an active role in shaping change to derive benefits.

Such opportunities were never open to everyone; but new regulations now curtail even the enterprising. Safaris of more than two nights were banned, ostensibly on security grounds, in 2008; and in spring 2010 overnight stays in the desert were forbidden altogether, removing any chance for the Bedu to profit from tourism using their specialist knowledge. Its benefits continue to elude most Bedu, especially those whose territory lies away from the main centres. The poppy-growers who complained of poverty to Hobbs (1998) were Gararsha and Awlaad Sa3iId from the Wadi Feiran hinterland; miles from the coast, beyond the area covered by tourist visas, and with no obvious attraction for any but the 1% of tourists interested in a ‘desert experience’ (Cesare 2003). Until the arrival of the Protectorate no attention was paid to developing ecotourism of the sort that might benefit local people away from the coast (Hobbs 1996, Hobbs, Grainger & Bastawisi 1998; Hobbs 1998; SKPMU 2003). The Protectorate’s plans were enthusiastically received around St Katherine. As Brockington, Duffy & Igoe (2008: 83) point out, it may not be true that the activity planned by parks will always fail in the face of local opposition; however, as we shall see in Chapter 5, even local support cannot make parks succeed in the face of government indifference.

*Development as Egyptianization (I)*

The development of South Sinai since 1982 has generated multiple areas of contestation between the Egyptian government and Bedu, including land rights, access to services and natural resource management. All are heightened in South Sinai by perceptions of identity
arising from the state’s intention to ‘Egyptianize’ Sinai (ICG 2007). Bedu, of course, are all Egyptian citizens, despite a widespread sense among Egyptians that they are ‘Other’: ‘uncivilized and unskilled’ (Aziz 2000: 33). Egyptian officials, according to Gardner (2000: 51), ‘can treat the Bedouins with mistrust at best, or contempt at worst.’ Altorki & Cole (2006: 12) suggest this hostility stems from the Bedu’s being viewed as ‘not really Egyptians’ by the general population. They attribute this, amongst other causes, to Mohammed ‘Ali’s 19th century exemption of Bedu from conscription into the Egyptian army, to which all other sections of the population were subject. They emphasize (2006: 12) ‘the historical role of the state in constructing the political-economic space in which a people....have existed, and continue to do so...as a result of decisions and actions taken by outside forces. (This exemption) did serve to keep [the Bedouin] remote from the centers of power and contributed to their differentiation, or marginalization, from the majority of ...the principal ahl el balad (local people)’

‘Awlaad ‘Ali Bedouin from Egypt’s Mediterranean coast in Altorki & Coles’ study, assert their rights as Egyptian citizens to full inclusion in and acceptance by Egyptian society, not to be ‘made fun of or ...relegated to a museum display’ (2006: 17). If north-coast Bedu resent their exclusion from the mainstream, however, South Sinai Bedu defiantly construct their identity on the basis of their difference from Egyptians. Gardner comments: ‘I know of no Bedouin who consider themselves, or Sinai, as Egyptian’ (Gardner 2000: 49). This self-differentiation, which can border on outright hostility towards Egypt, has been documented for half a century at least, predating the ‘development’ era. Bailey (2002) reproduces a poem of the Tarabin poet Aniz abu Saelim. Composed during the 1956 Suez Crisis, it expresses ‘a moment of sweet revenge on learning that the Egyptians, regarded by many bedouin to be arbitrary and arrogant, were being defeated and in retreat’. Aniz concludes his poem sarcastically:

‘But we’re bedouin and do only what our government says!’

(Bailey 2002: 7.9).

Bedu still differentiate themselves vehemently from ‘the Egyptians’ whose settlement policy means that they are now outnumbered in South Sinai, and who control their surroundings and their lives. My own contacts are unequivocal: when I asked one young man if he thought of himself as Egyptian he answered: ‘Never!’ For all that most Bedu remain law-abiding citizens in practice, their identity renews itself in opposition to Egyptian hegemony, as I explore in chapter 8.
Conclusion

Over four decades, then, ‘development’ has transformed the space around Jebel Musa that the Israelis entered in 1967. From a small winter settlement of Jebeliya agropastoralists, and the monks and pilgrims with whom they interacted, successive regimes have turned it into a bustling conurbation with car parks, hotels and public conveniences. While the presence of both powers in Sinai has been driven by security, the Israeli desire to conserve Abrahamic landscape and heritage contrasts sharply with the Egyptian imperative to modernize and develop - a policy I explore in Chapter 5. According to official statistics, ‘St Katherine City’ is now populated with thriving, educated Egyptian citizens. In the official reading development has happened; there is little more to do. However, the blessings ‘development’ has conferred on South Sinai Bedu have been mixed, and their attitude towards their ‘developers’ ambivalent. Not everyone welcomes the dramatic downscaling of agropastoralist livelihoods - the drastic reductions in flock size and abandonment of orchards - or the changes in custom and practice that have accompanied it. One elderly Jebeliya woman, reflecting on what had been lost in the process of modernization, mused: ‘This is not our life: it’s a just a copy of someone else’s.’79 Her words call to mind Esteva’s potent comment on the capacity of ‘development’ to refract people’s perceptions through ‘an inverted mirror of others’ reality: a mirror that belittles them’ (1992:7). As I show in Chapter 7, some people appreciate the comforts of sedentarized life; almost everyone values education, and some use western medicine. However, the exclusion of most Bedu from the benefits of the tourist boom make these services - patchily provided and inadequately delivered - seem mere crumbs from the rich man’s table: an accidental byproduct of the economic exploitation of their land.

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79 Interview 38: 19/07/07
May 2007: Katriin: Wadi Deir

12.00 pm: al dohr (midday prayer)

From up here, the people down below look like ants. The girls cannot hear them. Surrounded by ringing heat and bleating goats the girls sit in silence, crowding into the last sliver of shade cast by the rock. ‘Ashaed-ana Mohammed ar-rasul Allah! ‘Ashaed-ana Mohammed ar-rasul Allah!’ (I attest that Mohammed is the Prophet of God). The repeated phrases, rising and falling, bounce off the steep cliffs of Wadi al Arba3in and drift across the mountaintop.

The four sisters have walked round the shoulder of Ras SafSafa from their home in Wadi Shreij, bringing their five goats and three sheep to pasture: Mahmoud, their father, has more livestock than most these days. Their yellow dog, Dabous (‘Spike’), trots along beside them. Today, in mid-May, there still is enough grazing up here; the animals are not especially hungry and pick out their favourite: shih80, ignoring less tasty herbs. As they skirt the flank of the hill the girls bump into Sha3ban, their brother, riding his camel home after a long night’s guiding; his blaring transistor a pin-prick in the huge morning quiet. They greet him, chatter awhile then walk on, marshalling the little straggle of animals with high-pitched whoops, calling the animals by name, whistling, and when all else fails throwing a well-placed pebble. They usually walk them up here, directly above the Monastery, about three kilometres from home. There is still greenery here, and a run-off beneath a boulder where the animals can drink. Any Jebeliya can graze their flock there and they often meet other girls in the same patch. Girls from the wadis at the edge of the village still enjoy the freedom to roam with their animals that their cousins in the village have lost. Herding the family goats used to be every girl’s task, and Jebeliya women in Katriin lament the freedom of their youth. Herding gave them a valued role, companionship, exercise – above all the freedom to circumvent the rules and meet a sweetheart. But now Katriin is full of tourists and Egyptians. When girls go out they risk meeting men who may compromise their modesty: tourists or policemen or City Council officers telling them off if their goats eat the municipal flowers. They may see scantily-clad tourists whose behaviour outdoes the scandalous Egyptian soaps the girls relish on TV. Their heads can be turned and people will talk. ‘3ib!’ (For shame!) Talk damages reputations; and a girl with no reputation will never find a good husband. Most Jebeli men conclude it is safer these days to keep their wives and daughters inside, out of harm’s way.

Yasmin (8) skips and sings snatches of the song she’s been taught to sing at school: ‘Ana bada-wiya, ana mas-riya...’ (I’m a Bedouin girl, I’m Egyptian...’). Her track suit has seen

80 White Wormwood (Seriphidium herba-alba). My observations are corroborated by Perevolotsky at al (1989) and Rashad et al (2005)
better days. Her mother strives to keep her clean but fights a losing battle with the dust. Karima (13) and Jema3a (17) are soberly dressed, their black abayas (overdresses) obscuring the flowered jalabiyas underneath. Bought from the mobile ‘Arishi shop, whose visits are an eagerly-awaited treat, these coloured nylon dresses have replaced hand-embroidered black cotton clothes for all but the oldest women. Jamila (21), prides herself on her looks: as soon as she can she whips off her veil, pulls out a piece of broken mirror and starts to retouch her makeup. In the shelter of the rock, Jema3a uncovers too, revealing wavy black hair made glossy with olive oil and gordiya. When rocks tumble above, both girls jump up and cover themselves again as a group of boys draws closer; but Jamila is distinctly slow off the mark. Jema3a is engaged and anxious to conceal her attractions; Jamila, having lost two sweethearts, is equally keen to display hers.

Jamila makes tea for a mid-morning breakfast, deftly igniting a few dead rootstocks which burn long enough to boil tea, water and sugar together in a blackened Coke can. For breakfast the girls have brought last night’s rice and vegetables, reheated and eaten with leathery flatbread and salty-sour pickles. They uncover again when the boys move on; eating is so much easier without a veil. While they eat they talk about the boys; their future; their married sisters’ children. Although many bright girls rage with frustration at their lack of prospects, four of these girls and their sisters will be married before next summer is out. Only Karima rebels. ‘I’m in no hurry,’ she says. ‘I might get engaged one day then find a boy I liked better the next.’ She’s bright, and is teaching her nephew to read. But her chances of retaining her skills are slim: already, her older sisters are forgetting how to write.

The morning wears on in gossip, games, singing, playing the shibaeba and chasing after errant goats. Tourists mill around the Monastery below, camel guides tout for business, sellers hawk guide books, children sell patterned rocks and crystals collected from the mountains. The sun is high, the heat draining. Bees hum. The girls huddle on mats in the remaining shade, wrap themselves in their abayas and start to doze. Only Yasmin stays on guard; one eye on the goats, one eye on the white uniforms of the tourist police patrolling the path home.

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81 Lavie’s account (1990: Ch 7) of ‘Arishi mobile shops does not include dresses; in the 1970s they were still individual hand-sewn artefacts, embroidered with motifs and colours designating the marital status of the wearer.
82 Ephedra alata. As well as hair nutrients it contains ephedrine, a stimulant banned for athletes; one of the many plants here with pharmaceutical properties coveted by western companies (Hurst 2010).
83 An engaged girl has much to fear from the rapid spread of rumours if she behaves indiscreetly, but I have watched with amusement as unmarried girls tie and re-tie their veils, ensuring their charms are visible to a target audience.
84 According to Lavie the shibaeba, or shepherdesses’ flute, has sexual significance and was traditionally only played out of earshot of men. For the only time I have heard it played in mixed company see ‘Wadi Haemid’ below.
August 2008: ‘Wadi Harr’

12. 30 pm: al dohr: midday prayer

Out here in the great wadi there is no mosque, no call to prayer – just the wind. Other things fill people’s minds. Faraij looks happy as he confirms the order to Ahmed, a young independent bedouin guide: ‘Five Coke, two Sprite, three coffee. Sukker barra!’ (sugar on the side). This is the first group to visit Faraij’s cafe this week. Ahmed has brought the students up in a minibus from their beach camp in Nuweiba, 30Km away. A desert excursion: ‘Live the Bedouin experience!’ it says in the tour operator’s brochure. The girls are shiny with suncream and sweat, and shed their cover-up shirts as they fall into the shade. It is far too hot to start trekking as yet; the party will sit out the heat of the day here under Faraij’s roadside awning. Ten people, drinking, eating, drinking again, till it’s cool enough for the demanding walk through soft sand to the oasis of ‘Ain Zahra’ to the north. Faraij fetches cold drinks - as cold as a battered coolbox will keep them – and sets coffee on the fire. Coffee without sugar! He shakes his head at the strangeness of foreigners. Since Faraij has been married he tries to ignore the half-clad girls. For Ahmed they are still an opportunity, and he makes sure to pay special attention to the two without partners. Life as a guide may be morally confusing but it has its compensations.

Ahmed has brought fish and vegetables from Nuweiba. Faraij lights a bigger fire and starts to prepare for lunch; grilled fish, kofta (meatballs), rice, salad, fresh bread. He sets about making the dough. Ahmed had called him yesterday on his mobile to tell him he wanted a good meal for ten people. In ‘Wadi Sahl’, where he lives, they have electricity for four hours a day; just enough to keep his insulated jerrycan cold. So he had bought meat, and his wife made the kofta at home, and he brought them up in the coolbox to cook here. Faraij can manage the whole business by himself now: he used to need two of his cousins to help. But since they banned proper safaris, numbers have really dropped off. It’s not worth most people’s while to leave the beach if they can’t stay some time the desert. Now they can only stay one night – God knows why. Tourists don’t see the real Sinai now, he says - the ‘Desert Experience’ promised by tour companies is just a charade. The Egyptians say the safari crackdown is for security: but if someone was planning something bad, do you think they’d do it in the middle of the desert, where there’s nothing but sand? No – it’s just another way to keep the Bedu down; that’s his opinion. Faraij’s cousins have gone to Nuweiba now, to work in their father’s camp. Business is bad there too; there’s no money in it, but at least there are girls on the beach...

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85 Since this encounter took place safaris have been banned altogether on the grounds of ‘security’. I do not know how ‘Faraij’s’ business is faring.
It is silent in the after-lunch lull. The students doze or read, absorbing information about their surroundings: the great buttes covered with undatable petroglyphs, hunting scenes from who knows when? The nearby nawamis - funerary chambers 8000 years old. The canyons, the multicoloured rocks, the pure white rocks. The Rock of Inscriptions, where mediaeval pilgrims made their mark in a dozen languages. Their guide books mention the Bedu, too: ‘Fiercely independent nomadic people with a colourful heritage.’ Are they really still nomads? someone asks. Well look – here comes a guy on a camel looking like Lawrence of Arabia – so yeah, maybe they are. ‘But check out Ahmed in his 501s and his RayBans! He’s such a dude! What kind of a nomad is he?!’

The man on the camel has come to guide the group across the desert; but not without sitting with Faraij first for tea and talk. Slimaen has just come from a meeting in “Ain Zahra’. Everyone is preoccupied with the virus that has killed so many camels this year; angry that so little has been done, and so late. Eighty camels dead; no-one knows why. The old Mahmiya vet washed his hands of them, he says; didn’t want to know. But now a new guy has turned up. He’s good; he’s been vaccinating animals, and it seems to be stopping the problem. But not soon enough to help young 3id: twelve years old, and the family breadwinner. He was just scraping by; now his camel has died, and he has to hire a camel just to keep working. Half his takings go on the hire. Life is hard; al hamdulillah!

Slimaen turns to the dozing students. ‘Yallabina?’ (Shall we go?) he calls. ‘Yallabina!’ (Let’s go!) someone calls back sleepily.
Chapter 5

St Katherine Protectorate: rhetoric and reality

In the past half-century human activity on an unprecedented scale has affected the co-dependent elements of Sinai’s ecosystems with far-reaching results. Over-abstraction and pollution of limited groundwater due to sedentarization and tourism, along with the national policy of populating the desert with mainland Egyptians, have affected environmental conditions faster than any natural adaptive mechanism could respond. For years at a time, accelerating development has coincided with cyclical declines in rainfall (see Table 7.6), creating conditions that people experience today as drought. Different local actors have responded to environmental change using the means at their disposal: for the Bedu it has meant dramatically reducing flock sizes and altering livelihoods; for Egyptian planners, responses include both continued pursuit of development and conservation-led attempts to curtail it. For international actors, Sinai’s cultural and ecological importance has prompted interventions designed to mitigate the impacts of modernist development whilst drawing Egypt further into the west’s gravitational field.

The power relations that underpin environmental outcomes are thrown into sharp relief in St Katherine. The contradictory and often conflicting drivers of environmental policy in Egypt have produced a system hamstrung by Orwellian ‘doublethink’, in which the Government ‘holds simultaneously two opinions which cancelled [each other] out, knowing them to be contradictory and believing in both of them’ (Orwell 1949: 214). The result has been the rapid protection of up to 15% of Egypt’s landmass through the declaration of Protected Areas, environmental legislation, action plans and international conventions; whilst at the same time vested interests in business, industry and branches of government are able, in pursuit of ‘development’, to override every curb on their activity. In St Katherine it has become all too clear that the Protectorate can do little to protect the area from damage; and local people have shifted from welcoming it as an ally, to disparaging it as a paper tiger, to scorning it as a cynical ploy. The only people whose actions are really controlled by the Protectorate, it seems, are the Bedu.

In what follows I examine Egyptian environmental policy-making, including conservation, and consider reasons for the gulf between rhetoric and reality. I then look briefly at conservation in Sinai under the Israelis, noting bedouin responses to it, before discussing the St Katherine Protectorate under its EU- and mainstream government-funded phases.
5.1 Environmental policy-making in Egypt

Egyptian environmental affairs present a perplexing paradox. The government has been active in pursuing new environmental laws and policies as well as signing international treaties yet appears not to support them in practice. There are good indications of significant environmental degradation, and yet little popular environmentally motivated resistance. It is tempting to attribute both rhetoric and policy-making to the pursuit of external funding; but ironically conservation remains chronically underfunded within Egypt.

Egypt is not an example of a country where popular resistance to environmental change has influenced policy; hence the World Bank (WB)'s comment (2005: 99) that: ‘Public opinion is not yet significant [sic] to influence the policy formation process.’ The work of Gomaa (1997) and Samy (2007) illustrate low public awareness of environmental issues among individuals. Collectively, the few NGOs classed as ‘environmental’ do not reflect grassroots movements but elite groups of Cairo graduates interested primarily in research: Gomaa comments on their lack of grassroots participation (2007:29/30). However, these NGOs sit as ‘representatives of the community’ on the Board of the Egyptian Environmental Affairs Agency (EEAA) – the body charged with co-ordinating national policy. The World Bank (2005: 100) notes that most NGOs that run community-level projects are not locally funded but dependent on international donors. The place of NGOs on the EEAA Board – which Gomaa attributes to donor pressure (2007: 32) - thus enables the government to fulfil its requirement for public participation while bypassing the popular voice. It is reasonable to conclude that the government’s rhetoric of environmental protection does not reflect popular demand.

In Gomaa’s trenchant analysis, which delivers a rare internal critique of government policy, access to external funding has been the key driver of environmental reform in Egypt. Seeking to establish pole position in environmental issues in North Africa and the Middle East, by the late 1990s Egypt had ratified thirty-four conventions and was a signatory to every environmental declaration to date. Its reward has been substantial environmental investment by external donors: by the late 1990s Gomaa lists 59 schemes funded by eight multi- or bilateral donors (1997: 63), while the World Bank lists a total of nineteen international organizations that have ‘helped Egypt pursue its environmental agenda’ (2005: 101).

To what extent is Egypt’s environmental agenda that is being pursued, however, is a matter of question. Egypt suffers the highest costs of environmental degradation in the region, estimated at 5.4% of GDP (WB 2005: 9), and between 1992 and 2002 allocated 31.9

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86 270 according to the World Bank; 62 according to Gomaa
billion LE - some 5% of government spending (WB 2005: 110) - to tackling it. Around 75% of this was locally generated, while the remainder came from grants and loans from foreign donors to 'improve environmental management.' (WB 2005: xxi; 118). At operational level, just over half the grant assistance of 2.4 billion LE given between 1992 and 2002 was applied to projects reducing industrial and airborne pollution, managing irrigation, water supplies and waste water, dealing with solid and hazardous waste, and coastal zone management. However, led by the USA, 43% of the total grant budget, approximately 1 billion LE, was channelled into ‘policy support’ (WB 2005: 102), the strategic framework of which is provided by the World Bank’s Country Environmental Analysis (2005).

The rationale for donor support on this scale is the weak institutional framework that compromises Egyptian environmental decision-making. The public participation that ostensibly shaped the 1992 National Environmental Action Plan (NEAP) was in practice confined to elite groups, donors and ‘experts’: its end product an ‘un-costed shopping list of projects rather than an attempt to address environmental issues strategically’ (Gomaa 2007: 39). Significantly, poverty as a causal factor was ignored as a ‘political’ rather than an environmental concern.

The Environmental Protection Law of 1994, the EEAA’s chief legal instrument, took over four years to reach the statute book, decision-making hampered by wrangling between ministries with conflicting vested interests. This resulted in a systematic weakening of many originally-drafted provisions, including blocking (by the Petroleum and Agriculture Ministries) of proposed imprisonment for polluters in favour of limited fines; weakened powers for Environmental Impact Assessments (EIAs) to curtail development (by the Tourism, Industry and Petroleum Ministries); and a downgrading of the status of the EEAA. Despite Egypt’s strategic national objective being ‘the integration of the environmental dimension in all national policies, plans and programs’ (WB 2005: 87), Gomaa comments that: ‘vested interests’ – she cites the governorates, business, the armed forces and the police - ‘will ensure that environmental protection goals are not inserted into Ministries’ own development policies’ (my emphasis).

The environment, it seems then, will be protected by the EEAA or not at all; but its resources are no match for its responsibilities (WB 2005: 153). It is formally charged with producing national conservation and development plans, formulating environmental legislation and ensuring donor-funded projects comply with international safety regulations. It monitors compliance with its plans, designs projects for donors, draws up education and awareness programmes, monitors pollution and toxic waste, and implements EIAs (Gomaa 1997:11). It is also responsible for resourcing and managing Egypt’s Protected Areas, a task

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87 Enshrined in the NEAP update of 2002
that includes monitoring and conserving Egypt’s entire natural heritage. There is scarcely an aspect of Egypt’s environment, from conserving butterflies to containing swine flu, with which the EEAA is not charged. Funded partly centrally, partly with donor support and partly from unpredictable income from fines it is chronically under-resourced in relation to its brief, enjoying neither the staff, funding nor the executive power to fulfil its responsibilities (WB 2005: xviii). As a result, the World Bank report comments: ‘The record in Egypt for implementing and enforcing environmental laws [is] not very successful’ (WB 2005: 89).

The conservation of biodiversity is a very small part of the EEAA’s responsibilities. In its own right conservation appears nowhere in the World Bank’s analysis, nor does it feature in its expenditure breakdown. Recommendations for restructuring based on neoliberal World Bank principles propose ‘a national environmentally-sustainable strategy anchored in specific social and economic benefits’ (WB 2005: xxviii). The guiding light of ‘development’ throws the gap between government conservation rhetoric, policy and practice into stark relief. As noted above, political commitment to conservation seems clear and is enshrined in legislation. Egypt is signatory to eight major conventions on biodiversity protection, including the Convention on International Trade in Endangered Species (CITES); the African Convention on the Conservation of Nature and Natural Resources, and the Convention on Biological Diversity (CBD). Since the passage of Law 102 (1983), the EEAA has established 27 Protected Areas (PAs) Map 6 p 97, collectively covering some 15% of Egypt’s landmass, and aspiring to 18% coverage - some 180,000 km² - by 2017 (NCS 2006: 5-8).

However, preserving biodiversity appears low on the agenda established by neoliberal donors and those keen to partner them. It is not the sole purpose of protecting Egypt’s landscapes. Within the EEAA’s structure, responsibility for conserving biodiversity and managing Protected Areas lies with the Nature Conservation Sector (NCS). In its document ‘Protected Areas of Egypt: Towards the Future’ (2006) the NCS lists, alongside the conservation objectives of PAs: ‘To optimize economic and social return from the nation’s natural systems in a manner that ensures their long-term sustainable use’ (NCS 2006: 10). Declaration of an area as protected is judged explicitly not only by the degree of threat to which its biodiversity is exposed, but by ‘the site’s potential for generating direct financial benefit for the nation’ (2006:9).

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88 http://www.eeaa.gov.eg
Map 6: Egypt’s Protected Areas

Green-coloured areas are existing PAs: orange-coloured areas (not listed below) are proposed new ones, excepting Gilf Kebir (orange 2), which was declared in 2007. Existing PAs are as follows (* = South Sinai):
1: Ras Mohamed*
2: Zaranik
3: Al Ahrash
4: Gebel Elba
5: El Omaiyed
6: Saluga & Ghazal
7: Ashtum El Gamil

8: St Katherine*
9: Wadi Allaqi
10: Petrified forest - Ma’adi
11: Wadi Assiouti
12: Wadi Rayan
13: Lake Qaroun
14: Qubit al Hassana
15: Wadi Sannur
16: Nabq*
17: Abu Galum*
18: Taba*
19: El Borullus
20: Nile River Islands
21: Wadi Digla
22: Siwa (includes 3 PAs)
23: White Desert
24: Wadi Gemal

Source: NCS (2006)
This vision of nature as a ‘raw material for economic growth activities’ (Escobar 1996: 56), is graphically illustrated in the development of Egypt’s Red Sea coasts. Sowers (2007), analyzing the undermining of NCS authority, notes that coastal development should properly be regulated by the EEAA not only under criteria imposed by donors, but in collaboration with Egypt's own research and conservation communities and international environmentalists (2007:384; see also World Bank 2006: Chapter 6). However, the tourist industry grew by 592% between 1990 and 2002, yielding rapid returns for investors: as revenue generation increased, so government enthusiasm for curtailing it in the interests of conservation waned. Tourism is one of the three top generators of foreign exchange for the Egyptian Government, amounting to $10 billion in 2005 (WB 2006: xv). The Tourist Development Authority (TDA), based on a model designed by USAID and the World Bank, was set up by the Government in 1992 to facilitate this tourist boom, with an autonomous budget and ‘authority to distribute vast tracts of land along the Red Sea and Aqaba coastlines’ (Sowers 2007:389). In 1999, the TDA became the principal partner of a USAID initiative to promote ‘environmentally-sustainable tourism’ along the Red Sea coast. Whereas, Sowers explains, earlier donor support had sought to strengthen the Nature Conservation Sector’s role in environmental regulation, USAID privileged the investor position, recommending merely the voluntary adoption of environmental ‘best practices.’ This initiative, described by the World Bank as USAID’s ‘strengthening [the Tourist Development Authority’s] environmental capacity to manage tourism development’ (WB 2006: 79), in fact bolstered its aggressive policy of approving developments irrespective of their Environmental Impact Assessments. The Nature Conservation Sector and Protectorate staff were unable to keep pace. In the few cases successfully prosecuted only minimal fines were imposed, and prosecutors came under pressure to drop cases against elite investors (Sowers 2007: 390-91).

Escobar comments (1996:52) that: ‘The sustainable development strategy focuses not so much on the negative consequences of economic growth on the environment, as on the effects of environmental degradation on growth, or the potential for growth.’ So it is in Egypt. The World Bank (2006: 80) reports that: ‘In the Red Sea, at the highest political level...developers are aware that without the natural marine and coastal resource, a large fraction of the visitors would go elsewhere.’ This perception has not prevented the ongoing destruction by development of an estimated 30% of coral cover from some Red Sea reefs (Pilcher & Abou Zaid 2000; Cesare et al 2003). On the heavily-used reefs off Sharm el-Sheikh no diving restrictions have yet been imposed, despite diver numbers exceeding estimated carrying-capacity by a factor of ten (Jobbins: 2006).

89 Primarily from the EU.
If contested strategies and vested interests undermine effective conservation in Egypt, then what Sowers characterizes as ‘systematic government underinvestment’ (2007: 376) has also played a starring role. IUCN figures show that the global average of PA staffing is 27 staff per 1000 km², while the average for Africa is 70. In Egypt, the average is 5.3 staff per 1000 km²; in St Katherine it is 1.2 (NCS 2006: 18). For the same period, in contrast with the UNEP recommendation of $520 per km² as the minimum annual investment for sustainable PA management, Egyptian expenditure averaged $19. In the St Katherine Protectorate (SKP), a flagship park and World Heritage Site, it was $12 per km² (NCS 2006: 25).

Egyptian environmental policy, then, is marginal to state interests and largely donor-driven. It does not derive from a strong local lobby. Conservation issues are marginal within environmental concerns. All of this bodes ill for the prioritization of conservation concerns in SKP; but it does not mean that the Protectorate is powerless to act. Rather, as we shall see, it is restricted to acting upon groups less powerful than itself - the bedouin residents. To understand what it does, why and with what consequences, I first examine the history of conservation policy in this region.

5.2 The St Katherine Protectorate: rise and decline

The business of conserving St Katherine falls now to the state of Egypt; but Egypt is just the most recent of the international and transnational influences that have governed its development. Although Israel no longer directly governs environmental policy in South Sinai, the perceived contrast between past Israeli and current Egyptian approaches to conservation continues to influence bedouin response to the Protectorate established in 1996. I touch first upon this, before addressing the effects of the Protectorate in its two management phases.

Before the Protectorate

Between 1967 and 1982, the Israeli Nature Reserves Authority protected 98% of the Gulf of Aqaba coastline, and permitted development along its length only within conservation law (Gardner 2000:51). Lavie (1990: Ch 1 & 3) describes bedouin resentment of licensed fishing and the arrest and imprisonment of anyone caught taking protected species. She reports mixed reactions among the Mzeina to the Reserve and its priorities: while many resented the imposition of rules by the Occupier, others accepted the need for restrictions as consistent with customary law, and recognized Israeli protection of the environment - even while they were bemused and amused by its researchers - as an area of shared concern.
Hobbs, Grainger & Bastawisi (1998: 241) report enthusiastic support from all tribes for continuing the Israeli practice of employing bedouin wildlife guards to safeguard ibex and gazelle from (mostly foreign) hunters.

The ‘pristine’ nature of Sinai is hugely popular with Israelis: prior to the security problems of 2004 –2006, the high mountain wadis were never without Israeli trekking parties, at times in damaging numbers. Both backpackers and resort visitors have dropped dramatically in response to Israeli government security warnings. Nonetheless, Israelis continue to visit Sinai, less frequently in the mountains, more frequently on the coast.

The basis of Israeli imaginaries of South Sinai is exposed in Lavie’s critique of Rabinowitz’ ‘Sinai Spirit’ (1987). The book explores Rabinowitz’ experience in the 1970s as a staff member of the Society for the Protection of Nature in Israel, based at its field school in Katriin. Lavie is caustic in deconstructing both the Israeli presence in Sinai and Rabinowitz’ representation of it. She notes (1988: 41) that: ‘The Society seeks to preserve (or recreate?) the idyll of a pristine Holy Land in the midst of 20th-century military occupation’, evincing a nostalgia for a lost paradise. She comments that ‘the desert is a...sacred, transformative space for Israelis’ – the place where their identity as ‘the Children of Israel’ crystallized during their desert wanderings. The Bedu are viewed as part of this history, ‘living relics’ of their Abrahamic forefathers. She reserves her harshest criticism for Rabinowitz’ portrayal of Bedu, represented as an ‘authentically exotic (or exotically authentic) culture,’ to be preserved, like the landscape, as part of a mythic, pastoral past. Whilst Israelis are portrayed as ‘the desert’s guardians’, Bedu are presented as an element of nature itself, and described using animal similes.

The Israelis, then, studied and protected Sinai’s ecology, viewing it as the golden homeland where their identity was forged. Not all Bedu appreciated being objects of a conservation effort: as noted in Chapter 2, some compared the Israeli approach to them with animal husbandry (Hobbs 1995; my respondent 78, 11/05/08); and while Israeli scientists conserved the landscape and its residents as part of ‘their’ heritage, the Occupation proceeded rapidly (as I showed in Chapter 4) to rewrite the basic ecology of bedouin livelihoods. Nonetheless, the Israeli approach to conservation won them friends among the Bedu.

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90 Bombs were detonated at Taba, Ras Shitaan and Nuweiba 07/10/2004; at Sharm el Sheikh 25/07/2005; and at Dahab 24/04/2006. Responsibility was claimed by Tawhid wa Jihad (Unity and Struggle), a Palestinian and North Sinai Bedouin group (International Crisis Group 2007). Many South Sinai Bedu were arrested; according to my informants some remain in indefinite detention.

91 Published in Hebrew; I have not had access to a translation.

92 This field centre, known then as Tzukei David (David’s Cliffs), was transferred after 1982 to Suez Canal University as its Environmental Research Centre. It was my husband’s research base from 1987 to 2005.
When Egyptian rule resumed, Israeli Protected Areas retained their status (Dames & Moore 1981). St Katherine was designated a ‘Natural Protectorate’ in 1988 by Prime Ministerial decree No 613, in recognition of ‘the area’s conservation importance in terms of the mountain structural formations, unique biological features and its internationally renowned religious, historical and cultural heritage.’ The following year, responsibility for its management was assigned to the EEAA under decree 30/1989, although as yet its boundaries were undefined and no funding identified.

The St Katherine Protectorate (SKP) is formally administered by the Governorate of South Sinai, which also has responsibility for planning in the region, including industry, housing, road-building and tourism. The Governorate’s authority overrules the Protectorate, permitting PA decisions to be overturned or ignored (Grainger & Gilbert 2008: 27). Thus for example, while Ministerial Decree 1611 of 1989 invests the Protectorate Manager with ‘police powers’ to enforce legislation, within six months of the Protectorate’s declaration the Prime Minister’s office issued a decree establishing two industrial zones of 100 km² apiece within its boundaries (SKPMU 2003: 10-11). From the outset, then, the PA’s capacity to enforce environmental policy was structurally weakened by design. However, the frustration that this has led to in today’s PA had not yet afflicted the EU-funded programme that turned St Katherine into a ‘flagship’ community-based conservation initiative.

**Phase 1: European management**

In April 1996 Prime Ministerial decree No 904 defined SKP’s boundaries and initiated its five-year development programme supported by €6 million of EU aid (Grainger & Gilbert 2008). While the EEAA aims to ensure Egypt’s PAs meet IUCN classification requirements, to date, as we have seen, there has been an unwillingness to impose the restrictions on development demanded by the higher categories. Nonetheless at its inception the SKP was explicitly modelled on a Category V ‘Protected Landscape’ (SKPMU 2003:42), which, while curtailing ‘inappropriate’ land use and activities, couches its provisions largely in positive terms of maintaining local practice, enhancing lifestyles and incentivizing conservation rather than prohibiting customary practice and excluding people. In 2002 a further layer of protection was added when UNESCO inscribed 641 km² of the Protectorate’s central high mountain region, centred on the Monastery, as a cultural World Heritage Site (Grainger & Gilbert 2008).

The PA’s key conservation objectives focussed on identifying, monitoring and conserving indicator species from the area’s 500 plant species (approximately 40% of Egypt’s total), its 19 endemics including Sinai primrose (*Primula boveana*), and the critically-endangered...
near-endemic Sinai thyme (Thymus decussatus) (SKPMU 2003: 17)\(^95\), conserving mammals including Hyrax (Procavia capensis), Striped hyena (Hyaena hyaena), the endangered Ibex (Capra nubiana) and Dorcas gazelle (Gazella dorcas) (Bassuony, Gilbert & Zalat 2010); typical birds such as the Sinai Rosefinch (Carpodacus sinoicus) and Tristram’s Grackle (Onychognathus tristramii) as well as rarities such as Hume’s Tawny Owl (Strix butleri) and Verreaux’ Eagle (Aquila verreauxi) (Meakin et al 2005; SKPMU 2003: 19); reptiles such as the Mount Sinai Gecko (Hemidactylus mindii) and Hoogstraal’s Cat Snake (Telescopus hoogstraali) (Baha el Din 2006); and insects including the world’s smallest butterfly, the Sinai Baton Blue (Pseudophilotes sinaicus) (James, Gilbert & Zalat 2003).

Recognized as of equal significance was the area’s cultural heritage, including St Katherine’s Monastery, the surrounding sacred sites, and the indigenous Bedu whose presence makes St Katherine the only Egyptian park with a significant population (Grainger & Gilbert 2008). Their needs were to be addressed through a tailored development plan, the Bedouin Support Programme (BSP). The BSP was one of many elements assigned to the Protectorate in which key government responsibilities were effectively outsourced to transnational management. The Protectorate’s management aims are set out in Box 5.1 below.

**Box 5.1: SKP primary management goals (SKPMU 2003: 4-5)**

From the outset, the new PA was assigned responsibility for public health and utilities in lieu of the local administration. The SKP Management Plan notes bluntly (2003: 32): ‘The facilities and resources of the City Council are inadequate, and the Protectorate fills many of the institutional gaps.’ Whilst this might have resulted in environmentally-sensitive service delivery, the landscape around St Katherine today more clearly reflects an absence of conservation measures than their application. With the shining exception of St Katherine’s

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\(^95\) Due to lack of resources none of these has yet been formally categorized according to IUCN criteria, despite their tiny, restricted populations (Francis Gilbert, *pers comm*).
The new Protectorate was gazetted in an area where land rights and ownership were complex. Historically, the Monastery had laid claim since the 6th Century CE to all the land within three-and-one-third days’ camel ride. However, the monks have simultaneously made and held written records of bedouin tribal land holdings, and adjudicated in disputes over ownership and access (Rabinowitz 1983; Hobbs 1995). Unlike bedouin land on the coast, the high mountain territories and surrounding plains have little or no commercial value; whilst assuming ownership of them, the Government has therefore broadly allowed customary land-use patterns to be upheld, and the monks still act as mediators in tribal land disputes. The Protectorate has added a further layer of complication, and rangers comment on problems caused by the failure of authorities in practice to recognize Jurfi (customary) law; disputed ownership of antiquities and historic sites; and in particular conflicts between the Protectorate and the Governorate over land requisitioned for residential and administrative buildings (Fouda et al 2006: 125). However, the PA has not of itself either displaced local people nor placed widespread restrictions on their day-to-day activity: only one of my respondents, a Jebeli from a busy settlement, complained that he had given up herding as a direct result of grazing restrictions imposed by the PA.96 The exception is the prohibition of hunting; understood but often resisted in remote areas where subsistence remains an issue, but of reduced importance in more urbanized environments where paid work is available. As Hobbs (1996) and Hobbs, Grainger & Bastawisi (1998) report, most local Bedu offered the Park a cautious welcome: it brought possibilities for improving their prospects (for example by encouraging more tourism), and of improving the environment; while proposed conservation measures posed no threat to most current livelihoods.

The ‘European’ phase of the Park’s management was characterized by concerted and optimistic efforts to address the ‘socio-economic marginalisation of the local Bedouin communities’ (SKPMU 2003: 4), according bedouin priorities unprecedented prominence and resource in national terms: up to 17% of the whole project budget. John Grainger, the manager of the EU-funded PA, comments that: ‘The participatory element for the establishment of the Saint Katherine Protectorate [became] the most complex and the most important aspect of the planning process’ (Grainger 2003: 34).

96 Respondent 20 (24/05/07)
The Bedouin Support Programme

The Protectorate's Bedouin Support Programme (BSP) was, from the outset, sincere in its intentions. Informed by John Grainger's experience in other Middle Eastern settings of what Chatty has described as 'conservation without a human face' (Chatty & Colchester 2002), park planning was based on three 'guiding principles': 'that local people, tourists and native biodiversity could co-exist....that the people most dependent on the protectorate's resource base are the best stewards for these resources....[and] that as local communities may have to restrict their activities, and so pay the opportunity costs for conservation, they should be entitled to share tangible benefits...to offset such costs and ensure their support' (Grainger 2003: 34). Whilst accepting unchallenged an agenda that can perhaps best be characterized as 'benign neoliberalism', the underlying assumption was that if local people were to support conservation, it must in turn be designed to support them.

By the mid-1990s there was widespread recognition of the desirability, both morally and pragmatically, of local participation in conservation projects. Wells & Brandon's (1992) report was seminal, and Zube & Busch (1990) had already reviewed 57 such projects worldwide two years previously. However, many were already recognized as having failed to achieve their primary objective of conservation as well as local involvement; Hobbs (1996: 2; 2006) highlights inadequate consultation of local people by park authorities at the planning stage as a key reason for this failure. In an initiative unprecedented in Egypt a multidisciplinary research team was therefore appointed to gauge the views of local people on the proposed park. Its mission was to identify issues of concern to local people, and to devise a mechanism for incorporating Bedu into planning and managing the park (Grainger 2003: 35). They consulted leaders about priorities, then conducted loosely-structured conversations to obtain the views of people across the area. These views were then shared with 'non-Bedouin stakeholders' to draw up the BSP, which was then presented to 'the community'. Grainger describes 'an unprecedented event, when more than 125 bedouins, representing all the tribes, clans and settlements, were invited to an open-air majlis' (2003: 35).

The process and findings of the consultation exercise are set out by its architects, Hobbs, Grainger & Bastawisi (1998). Were it not for an earlier, more personal account (Hobbs 1996), it might escape the reader that this is a somewhat sanitized, 'official' version, including nothing that might disturb an Egyptian participant, government official or funder. Hobbs et al explain the basis of the 'conversations' generated with participants: no formal structure was used, but conversations were guided to include questions covering predetermined areas in a 'participatory action research' approach. Issues covered were wide-ranging: 'natural environmental conditions and problems, outsiders' use of
environment, traditional conservation systems and practices, hunting, general family economy, traditional agriculture, perceptions of alternate agriculture, pastoralism, tourism, health and nutrition, education, traditional crafts, relations with other tribes, tribal and clan territoriality and responsibility, tribal leadership and enforcement issues’ (Hobbs, Grainger & Bastawisi 1998: 240). Findings were grouped under headings used to develop practical aspects of the Bedouin Support Programme. Consciously or otherwise, the consultation findings present a snug apparent fit between the community’s own diagnosis and conservation interventions planned by the Protectorate. The Bedu appear to take responsibility for overgrazing and the hunting-out of mammals, thus in part justifying the need for protective state intervention.

However a closer reading of the text reveals that foreigners have historically played a major role in hunting; that restrictions protecting ibex are commonly employed by Bedu; that protection of flocks is the paramount reason for hunting predators today; and that settlement and economic factors are primarily to blame for overgrazing. The apparently ‘objective’ account reflects development discourse at the time, outlining the problem in terms amenable to its own proposed solution, which hinges upon changing bedouin behaviour: ‘In the St Katherine Protectorate,’ the authors conclude, ‘those changes could include a range of adjustments in patterns of Bedouin resource use and interactions with visitors’ (1998: 239). Not ‘adjustments’ to the behaviour of the ‘non-Bedouin stakeholders’ consulted, like the hotel owners who pollute and poison the wells (Hobbs 1996: 12); nor the tour operators who ‘generate problems including trash, damage to sites, and fuel-wood cutting’; nor the companies who ‘view the Bedouins as ‘lazy’ and ‘unhygienic’; nor the government bureaucrats whose system ‘usually excludes Bedouin participation’ in tourism (1998: 243). The first premise of the Bedouin Support Programme was that the Bedu should change their ways. Despite the best subsequent efforts of park managers to effect change in wider arenas, controlling the Bedu has remained the more manageable, and thus the most consistently pursued aim.

Joseph Hobbs provides an interesting counterweight to this discourse. Despite being first author on the 1998 paper, he also provides his own account of the consultation (Hobbs 1996). Politically primed by his experience of this and other bedouin communities, he is frank about the prospects of the research team obtaining open responses from local people: ‘The bedouin of south Sinai are generally very sensitive about the scrutiny of actual or perceived government representatives,’ he notes; ‘...(they) do not readily share their views with itinerant visitors, with those with whom they have not had time to establish trust, or with anyone they suspect of acting on behalf of potentially hostile authorities’ (1996: 8).

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97 Hobbs spent three years researching the Ma3za Bedu of the Eastern Desert – hence his accomplished language skills – and published a seminal study of the St Katherine area and its residents the year before the PA research (Hobbs 1989; 1995).
Knowing this, Hobbs chose to spend months in the field, getting to know people, spending time with them informally and following, rather than leading, their conversational threads. He explains that he obtained only superficial responses when interviewing accompanied by an Egyptian ranger, but much more openness when working with bedouin park staff, echoing my own experience. 98

Whilst not ignoring self-criticism by Bedu in relation to hunting and resource use, Hobbs emphasizes more strongly the destructive behaviour of outsiders, including the military (which the later paper diplomatically fails to mention). 99 He stresses bedouin hopes for the Protectorate in an ‘honest broker’ role between their communities and the many aspects of authority that fail them: in service provision, in environmental protection, and in job creation – particularly to provide an alternative to the increasingly problematic cultivation of narcotics, another contested issue not mentioned in the later paper. He emphasizes the willingness of Bedu, in return for the Park’s support, to adapt to new requirements, and stresses the need to consult their ‘superior knowledge of regional species distribution and ecology’ (1996: 16). However, the key contrast between the two papers lies in Hobbs’ understanding of the politics of St Katherine, visible in 1996, airbrushed out by 1998. Noting that the PA’s sixteen rangers must by law be Egyptians with university degrees, he advises that ‘listening to their traditional bedouin counterparts... may necessitate special ranger training in cultural awareness’ (1996: 16). Hobbs had foreseen that communication between Park personnel and Bedu would become a major problem for the Egyptians assuming the Park’s management at the end of the 5-year EU project. He comments:

‘The relationship between Sinai bedouin and Egyptian authorities is poor now, and communication is almost non-existent....Educated Egyptians from the Nile Valley generally dismiss bedouin as ignorant and backward, and most are averse to the hostile desert environment in which the bedouin live. Sinai bedouin, for their part, stereotype Egyptians as arrogant, unwilling to learn, and without hope of surviving even a day in the desert. Building respect and confidence to bridge this perceptual gulf is essential if the [Park’s] practical challenges are to be met’ (1996: 10).

I shall return below to Hobbs’ prescience and its implications.

The PA’s initial responsiveness to the Bedu owed much to the exercise of ‘transnational governmentality’ (Ferguson & Gupta 2005), which legitimized the elevation of local concerns usually overlooked by state planners. The 13-17% of project funding assigned to the BSP in

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98 For example, it seems probable that positive comments about healthcare facilities in Wadi Feiran - the polar opposite of my own findings - were influenced by the presence of an Egyptian doctor who offered respondents free treatment in return for their help.

99 According to Hobbs (1996: 11) Bedu asked if the PA would clear South Sinai’s minefields, which have been responsible for death and injury of people as well as livestock. For once their request was heard: the government gave this responsibility not to the military but to the under-resourced PAs, with the result that today, access to Nabq PA on the Aqaba coast is still via an unsecured and barely-marked minefield.
its ‘European’ phase enabled the PA to respond meaningfully to local concerns expressed during the consultation. The Protectorate had every reason to feel it had done its best to win the support of bedouin communities. Several elements were primarily developmental, designed to build goodwill among the communities that had requested them. These included a primary health care service for remote settlements, provision of veterinary care, and the construction of small dams and access tracks to hard-to-reach settlements. The three key initiatives that survived the first phase, however, were those more central to the PA’s original vision: employing local people in conservation roles, and catalyzing income-generation opportunities in pursuit of ‘sustainable development’. The local significance of these projects lay in their intent to include bedouin participants in project planning, management and benefit.

The FanSina handicraft enterprise was established from the outset as a private company in bedouin control. The young woman appointed to run it has become the only Jebeliya woman ever to have established herself in a public role: a significant cultural precedent. The al-Karm eco-lodge was intended to benefit the wider community in its remote vicinity as well as the twenty-four families who formally owned its land and buildings. Grainger explains (2003: 37) that the EEAA entered into a partnership with the Social Fund for Development in order to bring ‘the appropriate resources for institutional training, financial management and promotion to the project.’ That adequate support did not survive the Protectorate’s first phase, leading to the al-Karm’s eventual failure, was not the fault of the project’s designers. The 24 Community Guard jobs, which employed local men to promote good conservation practice in their own, often remote, areas, were highly-regarded and sought-after at the beginning. The Park prided itself on its claim that 60% of its staff were local Bedu (Grainger 2003: 36).

Apart from the al-Karm eco-lodge to which I return below, the role of Community Guards in monitoring and reporting non-compliance with conservation measures seems the closest the Protectorate got to actual ‘participatory management’ : neither internal documentation nor published papers show evidence of an ongoing role for Bedu in actually managing the Park. Most bedouin non-field staff were employed in support roles (mechanics, labourers, etc). Grainger’s later use of the term ‘participatory planning’ (2003: 34) seems a more accurate reflection of reality in Phase 1. Notwithstanding the many caveats applicable to this process (see for example Cooke & Kothari 2001; Hickey & Mohan 2004), the seeking of community views and their budgeted incorporation into the Protectorate’s work was a major improvement in national conservation practice and an unheard-of advance for the Bedu.

100 The Egyptian Social Fund for Development (key donors: EU, Germany, Japan, Kuwait) was established in 1991 to promote jobs across Egypt, primarily for workers displaced by the first Gulf War (UNDP: 2005).
101 These figures were planned to rise to 30 Community Guards and 70% of all staff at full complement (Grainger 2003:36).
People felt as if they mattered. As a Garasha man in Wadi Feiran put it to me: ‘It was much better when John Grainger was running it. He came to see people; he brought them uniforms. Now, under the Egyptians, no-one ever comes. We don’t feel we have a Mahmiya [Protectorate] now.’ There is no doubt that SKP was set up with the intention of avoiding previous conservation failures, and of doing so by basing its approach on local participation. One illustration of this intent is the PA’s initiation of the first new helf, or restricted grazing agreement, in living memory (EEAA 2006:41): in addition to conservation aims the intention was to establish trust among local people by recognizing their own tribal custom and law.

At the end of the EU project the SKP Management Unit published its long-term plan (SKPMU 2003) to be implemented once the European Director had handed over to his Egyptian successor. Included were the findings of an EU evaluation commending its management quality, effectiveness and impact, and highlighting (2003:5) the PA’s relevance to ‘the expressed needs of project beneficiaries [ie the Bedu]’. A number of my respondents volunteered their own endorsements of the Park under John Grainger, mentioning him by name and attributing the Park’s positive impacts to his personal approach.

As Li has pointed out (2007:9), the fact that many schemes of ‘improvement’ are cynically designed to enrich or consolidate the power of elite groups does not mean that every one forms part of a conspiracy to disempower the poor while claiming the opposite. Ferguson, similarly, recognizes that while conservation and development schemes may produce negative political impacts for those they purport to help, those delivering them may be innocent of any such intent (1994: 254). SKP may not have escaped producing some of the negative outcomes common to conservation initiatives, including increased elite control of resources, criminalization of local people for traditional land use and hunting practices, and the commodification of bedouin culture as ‘part of the selling point for ‘people-centered conservation’ (West, Igoe & Brockington 2006:8). However, at its inception the thinking behind SKP must be sharply distinguished from conservation approaches adopted elsewhere in the Middle East, for example the exclusion of Bedu from traditional rangelands in the projects described by Chatty (2002, 2003). Li comments that: ‘While there are sound reasons to be skeptical of some of the claims made in the name of improvement, ....trustees have endeavoured to secure the welfare of populations and carried out

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102 Respondent 99 (20/08/08)
103 The helf is designed to protected the Sinai Thyme (Thymus decussatus) from grazing. Itself reduced to a handful of high mountain patches, it is the only food plant of the critically rare, endemic and endangered Sinai Baton Blue (Pseudophilotes sinaicus), the world’s smallest butterfly (James,Gilbert & Zalat 2003).
104 In Chapter 6 I offer an alternative reading of this initiative.
105 11.5% (14/122)
106 Li defines ‘trusteeship’ as ‘the intent expressed by one source of agency to develop the capacities of another’ (2007: 285).
programs that cannot be explained except in these terms.’ The evidence suggests that the first phase of St Katherine Protectorate was one such.

**Phase 2: the Mahmiya and its discontents**

From January 2003 the Protectorate was mainstreamed into Egyptian government funding and managed by the Nature Conservation Sector of the EEAA. Less than five years after the handover, an evaluation of SKP and its World Heritage Site (Paleczny et al 2007) lists a catalogue of failures both in management and conservation, with eight out of twelve key values having made no improvement or deteriorated over the period. A summary of findings against key indicators, written with masterful understatement, appears in Box 5.2.

<table>
<thead>
<tr>
<th>Status of St Katherine Protectorate 2007</th>
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<tr>
<td>- The SKP is a large and complex PA to manage; a strong co-ordinating and controlling role is necessary, with co-operation with the town council and stakeholders.</td>
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<tr>
<td>- The condition of the Dorcas Gazelle population at El Q’aa plain has deteriorated over the last five years [because] the area has been excluded from the buffer zone...rangers have no jurisdiction to operate there...there has been no recruitment.</td>
</tr>
<tr>
<td>- The condition of Wadi Mandar and its surroundings have deteriorated because of the unwise placement of the main Sharm el Sheikh waste dump inside the Protectorate [and] the Protectorate’s visitor management plan, proposed over three years ago, has not been implemented.</td>
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<tr>
<td>- Infrastructure and tourism facilities have deteriorated due to insufficient funds and slow replacement of rangers...The Protectorate’s garbage collection tools such as trucks and loaders have been inoperable for most of the last five years...</td>
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<tr>
<td>- The condition of the historical town of St Katherine, one of the most important cultural assets in the Protectorate, has deteriorated. Reasons include a lack of environmental awareness of municipal decision-makers, cessation of all operations of the town’s dump...[and] insufficient control of development that does not conform to the distinctive architecture of the town.</td>
</tr>
<tr>
<td>- The condition of the world heritage/cultural landscape is considered to be stable – a success for the Protectorate in the light of the problems of underfunding, shortage of staff and bureaucratic complications.</td>
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<tr>
<td>- There has been demonstrable improvement in the ecological condition of the high mountain region – an important success for the Protectorate.</td>
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Paleczny notes the need for better liaison between the PA and the Governorate to develop a more sympathetic approach to waste management issues; the critical need for funds generated by the Protectorate to be ploughed back locally; the urgency of implementing the PA’s long-standing visitor management plans (unrealized due to the opposition of the St Katherine City Council ) - the likely consequence of failure being ‘the delisting of the SK World Heritage Site by UNESCO, at great cost and embarrassment’ (2007: 9). Alongside poor staffing, lack of training and an inadequate budget, Paleczny highlights another key factor responsible for this catalogue of problems: the control of the Protectorate’s budget by
the City Council. This fact illuminates the PA’s weakness at a stroke, accounting single-handedly for its inability to enforce conservation in the face of more powerful interests.

Paleczny’s report makes depressing reading. Almost every element of the 2003 SKPMU plan is categorized as underway but not complete, still being planned or not yet started. Those few listed as achieved relate to the Bedouin Support Programme (2007: 94). However even here there is more depressing news, for the aspects listed as successes are more equivocal achievements than Paleczny implies. They include ‘participatory’ management, and communication with the bedouin community which Fouda et al (2006: 12) note is often assessed by park staff with unwarranted optimism. It also includes the al-Karm eco-lodge project, better described in an independent evaluation carried out in 2007 for the SSRDP (PA Consulting Group 2008).

The PA Group explain that the eco-lodge project was set up and supported by the EU-funded Protectorate to promote ‘sustainable development’ through back-country tourism. It provided start-up costs, marketing materials, promotion (including space on its website) and training for the bedouin manager and staff. However, on transfer to the EEAA a partnership structure was established with the bedouin owners. ‘Each stakeholder is seeking benefits,’ the authors comment, ‘but neither has the necessary business/technical skills to manage a commercial lodge’ (2008:10-6). There is no website and no promotion as planned through the Visitor Centre. Al-Karm, which was converted from an abandoned ancient village, lies a punishing and expensive 4x4 journey from tourist centres on the coast and even from nearby Katriin, so picks up no passing trade. It has no landline, no internet and no mobile network, making it almost impossible to take bookings. The British consultants complain of ‘a lack of activities or programs featuring the strong allure of Bedouin culture,’ adding that ‘the Bedouin host and staff at al-Karm cannot adequately educate guests due to their very limited language skills’ (2008: 10-7). Local populations with limited access to formal training or education, they explain, ‘cannot be expected to have the management skills to take over and run a commercial business without a period of long-term ‘hand-holding’. Critically, the enterprise was developed as a donor-funded gift to ‘an artificial, crafted partnership between the Bedouin and a Government institution that inherently has no stake in whether the eco-lodge succeeds or fails….A facility that is not financially viable,’ the consultants conclude pithily, ‘will not be able to contribute to the conservation of the natural environment or benefit the local community’ (2008: 10-9).
The roots and results of decline

What factors have led to this rapid decline, and with what results? An internal EEAA document sheds detailed light on the state of all Egypt’s PAs, including St Katherine, as assessed by their staff. Referenced as Fouda et al (2006), the report was the result of the first attempt to assess Egyptian PAs’ resource and management needs according to IUCN criteria using an exercise known by its acronym, RAPPAM. A summary of key strengths and weaknesses identified in the system is reproduced below at Table 5.1.

### Table 5.1: Strengths and weaknesses of the Egyptian PA system as assessed by its staff.
Reproduced from Fouda et al (2006: 8)

<table>
<thead>
<tr>
<th>Context and Policies</th>
<th>PA Design and Planning</th>
<th>Inputs</th>
<th>Management Processes</th>
<th>Management Outputs*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td>Strengths</td>
<td>Strengths</td>
<td>Strengths</td>
<td>Strengths</td>
</tr>
<tr>
<td>The PA System has high biological importance and representation.</td>
<td>The PAs generally are meeting their conservation objectives.</td>
<td>Staff technical skills and performance are generally good</td>
<td>Management planning capacity is generally good</td>
<td>Threat detection to the system is good</td>
</tr>
<tr>
<td>It is socio-economically important but many benefits are unrealised.</td>
<td>The PAs are well configured and zoned to meet their objectives.</td>
<td>Communication and educational programmes are satisfactory</td>
<td>Decision-making is collaborative and transparent with partners</td>
<td>Visitor and tourist activities are managed</td>
</tr>
<tr>
<td></td>
<td>The PAs have binding legal security</td>
<td></td>
<td></td>
<td>Staff monitoring, supervision and evaluation occurs</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>Weaknesses</td>
<td>Weaknesses</td>
<td>Weaknesses</td>
<td>Weaknesses</td>
</tr>
<tr>
<td>Serious pressures and threats from land use changes and recreation</td>
<td>Many PAs have land ownership disputes</td>
<td>Unacceptably low level of funding is the most serious weakness</td>
<td>Management plans are not being implemented</td>
<td>Threats are detected, fines or other punishments are levied, but the law is then not applied</td>
</tr>
<tr>
<td>The system is vulnerable to illegal activities and low law enforcement</td>
<td>Legal enforcement is poor.</td>
<td>Staff levels are too low</td>
<td>Management actions are not informed by research and monitoring programmes.</td>
<td>Infrastructure development is inadequate</td>
</tr>
<tr>
<td>The system suffers from an inadequate policy framework</td>
<td>Local communities are not very supportive</td>
<td>Training opportunities are inadequate</td>
<td></td>
<td>Staff training and career development is poor</td>
</tr>
</tbody>
</table>

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107 The reference is misleading. Moustafa Fouda was formerly Director of the NCS, the subdivision of the EEAA responsible for PA management: the report was written for him, not by him. The exercise was actually initiated and written up by a group of conservation scientists, international and Egyptian, working on donor-funded projects aimed at capacity-building Egyptian conservation and its management. They included John Grainger, Dan Paleczny, Francis Gilbert and Sarry Zalat.

108 Rapid Assessment and Prioritization of Protected Area Management. The exercise asks staff to rank their own PA in terms of its natural resources and the threats to them; management and legal environments; staff resources, community relations and many others.
The table needs to be contextualized. During the exercise staff appeared to express themselves freely when offered the ability to comment; however, contentious questions (e.g., corruption, political instability) produced few comments and low assessments, meaning some key issues are underplayed. Some assessments are clearly optimistic: for example, ‘Communication and educational programmes are satisfactory’ is listed as a strength in the table. However, analysis of individual scores and comments exposes this as wishful thinking: ‘Responses indicate little outreach to local communities, and the management of relations with people seems to be an endemic problem, both with tourists and local people...The value of establishing good relations with local people is widely recognized but...not being properly addressed’. This example is repeatable for many of the stated strengths: legal systems are in place, for example, but it emerges strongly from the assessment that enforcement is the exception, not the rule: ‘Often PAs detect violations but nothing happens, because they have to rely on the police and judiciary to carry through’ (Fouda et al 2006: 12).

Jointly with Gebel Elba, the SKP emerged as the area richest in ecological and cultural resources, but also the most vulnerable, of the 24 PAs. Chronic underfunding is identified as the core problem, as we have seen. Gate receipts from visitors to SKP raised over 6 million LE in 2005, but these funds could not be retained by the Protectorate to improve staffing and services: they were returned to the EEAA. The consequences of this systematic underinvestment, evident in Paleczny’s summary, emerge in anguished comments from staff taxed with doing the impossible: delivering ambitious objectives with inadequate staff, equipment and support. I reproduce in Box 5.3 below a selection of typical responses to a range of RAPPAM questions (translated by project staff). The questions themselves are often clear from the replies, but are actually unimportant; the words and their tone reveal all one needs to know about the state of St Katherine today.

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109 Of the 120 comments recorded for St Katherine, 65 expressed a value judgement. Just eight of these (12%) were broadly positive: five referred to the European phase (e.g., ‘Previously good, now inadequate’), and the remaining three were qualified by criticism. The remaining 88% expressed dissatisfaction.
Box 5.3: Comments made by St Katherine Protectorate staff to amplify RAPPAM assessment scores.


The frustration of St Katherine’s management and rangers is palpable and justified, and for some at least is caused not merely by their inability to implement conservation, but by an internal discursive conflict. Most are recruited as graduates; many have studied for higher degrees in western universities. They have adopted western scientific thinking with the zeal of converts, and are fully signed-up to the 2003 SKPMU plan with its management goals and objectives (one of the few areas in RAPPAM receiving consistently positive comments). The intent of this plan, as of all others, is to effect positive, measurable change in St Katherine’s conservation status. The problem, as we have seen, is that conservation in Egypt has been subordinated to economic and political objectives. As a result, the whole conservation project is subject to the same fate as al-Karm and its participatory management, set up to
deliver outcomes that have been made unachievable. Hickey & Mohan (2004: 13) comment that: ‘it is unrealistic to expect participatory projects to transform existing patterns of power relations’; they advise practitioners to ‘avoid promoting participatory approaches at local levels... where the wider political space is unsupportive.’ Egyptian conservation claims to be supportive; but while promoting its credentials it hamstrings its practitioners.

The impact of powerlessness

St Katherine Protectorate is faced with insuperable difficulties in enforcing conservation law where it counts: with developers, road-builders, utility companies, industrialists and local councils, as I explain below. With strong political backing, these bodies act unchecked. On whom, then, might the Protectorate have an impact? Who is without political influence, subaltern, subject to state control? It is no surprise that the current PA has invested such hope in its relations with the Bedu (scoring itself the highest of any PA for community relations [Fouda et al 2006: 33]): they are the only sector within the PA's remit on whom control can be exercised effectively. Yet sadly, the decline in SKP's funding and performance is matched by declining relations with bedouin communities. Whilst not acknowledged by Protectorate staff this is very evident on the ground. Three men of my acquaintance used to work for the PA but do so no longer, disenchanted by the new regime. Two told me they left voluntarily, one was sacked without explanation or redress; a fourth was inexplicably refused employment. Bedu in Katriin often conflate the PA and the City Council, lumping both together as ‘the Egyptians’: an understandable confusion, given local knowledge that the City Council holds the PA’s purse-strings; establishing it, in effect, as a passive arm of the state. As a result, people are hardly surprised any more when the City Council supports developments such as doubling the street-lights and erecting disfiguring signage and wholly incongruous buildings. Local people question why the PA permits it, but they recognize it is powerless to act. What they resent deeply is the differential application of rules - for example of planning rules that prevent the Bedu from building, ostensibly in the interests of environmental protection, while Cairo-style flats for government employees, concrete bus shelters, five-star hotels (complete with pools) and ‘pharaonic’ public lavatories rise unimpeded on what used to be bedouin land. It seems to many that only Bedu are held responsible for flouting IUCN definitions of ‘appropriateness’: ‘the Egyptians’ act with impunity. As staff in other PAs recognize: ‘Local people feel victimized by the selective application of penalties’ (Fouda et al 2006:12). Whereas the European PA project was able to circumvent tensions related to tribal and national identities by transcending the state, its

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110 The men are all Jebeli: my respondents 7:09/05/07 and 10:11/05/07; a former driver; and the brother of a friend, respectively.

111 The latest development, as of May 2010, is to double the row of streetlights lining the road into Katriin – already visible from 35,000 feet. (The school, meanwhile, needs funding for basic equipment.)
Egyptian successor reinforces them daily. Box 5.4 gives an example of counterproductive community relations.

**Box 5.4: Community relations: an example**

Source: Kelvin Bown, animal welfare activist, St Katherine, and Faraj Mahmoud pers comm. May 2008.

As we have seen, in its first phase the Government outsourced to the Protectorate several responsibilities generally assumed by states. While the PA was donor-funded that strategy had its own logic. Now, however, the Egyptian-run PA has inherited a plan for which it is not resourced, but which effectively gives it responsibility for bedouin ‘development’. A case can be made that, by consigning Bedu to conservation-based development, Egyptian discourse reinforces their historical position as differentiated from other citizens, outside the realm of governmental interventions appropriate to other citizens; and that identifying Bedu as appropriate subjects for conservation reinforces a common perception of their separation from society, placing them in the sphere of ‘nature’ rather than ‘culture’. Thus while the Park retains a focus on working with the Bedu as one of its few options for effecting change, the original aim of bedouin participation has shifted to one of bedouin improvement. ‘Development’ (for which in this case read conservation) is not geared or empowered to effect direct political change (Ferguson 1994, Brockington 2002). However, by presenting conservation as a change agent, and leaving the rest to ‘trickle-down’, governments can argue that ‘something is being done’. It is possible to read today’s Bedouin Support Programme – innovative and benign in its conception – as a means not only of locking the Bedu in to ineffective development; but also, in the guise of ‘conserving their culture’, as aiding and abetting their marginalization in ‘traditional’, localized space. Where, despite the expenditure of millions of donor Euros in South Sinai, they remain.

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**Controlling feral donkeys in SKP**

Feral donkeys are a problem in St Katherine. An introduced and damaging species, they compete in growing numbers with local livestock for scarce grazing. The PA has a responsibility to control their population, if necessary through a humane cull. In Spring 2008, staff decided to take this action.

Not every Bedu can afford a camel, and for many, the feral donkey population has become a welcome source of pack-animals. Finding, claiming and training an animal, however, is a major investment of time and skill. When the PA announced its intention to round up the animals, local owners were asked to bring their trained donkeys down from the mountains. The owners opened negotiations with the Park, since keeping the animals corralled would mean finding money to feed them. In the past the PA had provided supplementary feeding-stuffs when such situations required it. But while the Bedu understood that talks were still underway, the round-up took place. Scores of donkeys, including foals, were caught and penned (inhumanely, according to a local observer) before being transported and sold off for meat. The round-up included several trained donkeys whose owners received no compensation, causing great resentment.

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Box 5.4: Community relations: an example Source: Kelvin Bown, animal welfare activist, St Katherine, and Faraj Mahmoud pers comm May 2008.
Conclusion

As we have seen, the Government of Egypt has been a regional leader in declaring Protected Areas, and devotes much rhetoric to the importance of conserving its natural heritage. Paradoxically, however, powerful political and commercial interest groups backing development and security have ensured that the environment plays perpetual second fiddle. Political will to fund and enforce environmental protection is lacking, despite - and sometimes directly due to - external donor support that encourages commercial development with a thin veneer of ‘sustainability’. In South Sinai this has led to contradictory policies, with the Government’s planners permitting destructive development in direct opposition to its own legally-backed conservation priorities, while conservation authorities are too weak and poorly-funded to object.

Against this background the St Katherine Protectorate was established as a flagship initiative, designed not only to conserve a unique landscape but to make the case for community-based conservation. Key government services were outsourced to the Protectorate through its Bedouin Support Programme, established after unprecedented local consultation, in return for bedouin co-operation with conservation aims. Bedu responded positively to an initiative that brought services, valued the environment and recognized their own contribution to protecting it. Despite its strong focus on habitat degradation through overgrazing, the EU-funded phase of the Protectorate took bedouin concerns seriously and was well-received. Since 2003, however, community response has altered dramatically. Under Egyptian government management, the Protectorate has insufficient funding to deliver its brief. Services have declined and the PA has become subordinate to council planners. Unable to control powerful developers, it focusses on ‘educating’ and controlling Bedu, presented in the prevailing discourse as backward and environmentally destructive. Bedouin response to this shift is the subject of Chapter 8. Meanwhile, the rationale for attempts to ‘educate Bedu to protect their environment’ lies in an assumption that their irresponsible grazing practice causes environmental degradation. In Chapter 6 I interrogate that assumption.
May 2007: Katriin: ‘Wadi Hadhaba’

3.00 pm: al 3asr (afternoon prayer)

Silence. No human sound: just a slight rustling of leaves, the passing drone of an insect. It is too hot for the songbirds, but crag martins still swoop silently, casting hawk-like shadows on the cliff behind the garden. Haiya 3a’l al salah! Haiya 3a’l al falah! (Come to prayer! Come to wellbeing!) A wisp of breeze picks up the faint cry from the mosque in the village far below and lifts it over Abu Jiifa, the steep pass that separates the village from the great high mountain wadis.

The two German couples are still asleep on mats under the trees, worn out by the morning’s climb and the unaccustomed heat. Their guide, Saaleh, sits apart from them in the shelter of Suleiman’s tent. This is Suleiman’s garden; he finds it is more productive these days as a café of sorts; a rest-stop where tourists can drink tea and share his fruit. The tourists get a glimpse of bedouin hospitality, and the guides make sure it’s worth his while. Not that he’s cynical; he enjoys welcoming the ajaneinib (foreigners). Mostly they’re nice people, he says. Europeans love the mountains, appreciate the place. He’s watched them: you won’t find them dropping litter around or wasting water. The Israelis were the same. Not like Egyptians, the men agree. But then they don’t come up here anyway; the climb would finish them off, they joke quietly. Suleiman takes out a battered tin to roll a cigarette from his own green tobacco; the younger man stops him, offering him expensive Marlboros from the pack in his shirt pocket. He has treated himself today: the Germans have paid upfront for their trip.

Saaleh goes round the back of the tent to the jerrycan in its cool shadow. Earlier he had made lunch for his group; now he washes the dishes. He’d brought food up in his rucksack: flour to make ‘bedouin fateer’ - a crisp, smoky, flatbread - tins of tuna and corn, feta cheese, salad stuff, crisps and cake. The Germans hadn’t expected such food. But you can buy most things here if you can afford it, he says. Everything has to come from Cairo, though, so it’s expensive. The kids enjoy biscuits and sweets for a treat; and everyone loves Coca Cola! The problem is the vegetables. Suleiman takes up the theme. “Ah - zaman!” (Once upon a time...!) I’d no need to have tourists in this garden. You should have seen the fruit! I used to have Stambouli grapes like this (measuring the first two digits of his forefinger); pomegranates like this!! (hands forming a football). ‘Now look – half the garden’s empty!’ In the upper part of his garden, nearest the well, tomatoes and cucumbers, courgettes and peppers and rocket are forming in their beds under the apple

112 Ptyonoprogne fuligula
113 A small joke at Egyptians’ expense: Bedouin flatbread is thin and simple, while Egyptian fateer is a butter-enriched dough often stuffed with meat or cheese. Laughing at the contrast between Bedouin fitness and Egyptian fatness is a small act of resistance.
trees, edges carefully raised so no drop of water is lost, the patches scattered with animal dung. But the lower half stretches out dry, the earth bare below scrawnier trees. Even if there's not enough to sell now he still has enough for his family and to share with guests. But he's sorry for the folk down in the town. Many men have given up their gardens since there's been no rain. And everyone suffers if they can't get fresh vegetables. Saaleh pulls a face. The salad stuff he bought today looked days old. ‘All ta3baen (tired, wilted). But what do you expect? - they're full of chemicals! covered in white powder and they make everyone ill.’ ‘Ah – zaman!’ - the older man's favourite theme - ‘we didn’t eat much but we were healthy because our food was all natural. Now people eat all kinds of stuff but they are ill all the time.’

The Germans are stirring, shifting their bulk, squinting into the dappled shade. They stretch, struggling back into their boots as Saaleh brings a new round of blisteringly strong hot tea. Everyone brightens up. Suddenly, from round the back of the tent, a very small elderly woman appears with a bundle of cloth. Her outer dress and veil are black, but coloured beadwork frames the peaked plait on her forehead114, and her wrinkled fingers have silver rings. Her eyes crinkle above her veil. ‘Ahl, ahl!’ (Welcome!) The tourists smile. Fathiya, Suleiman's mother, puts her bundle down and unrolls it, deftly arranging a display of beaded necklaces, bracelets and trinkets, along with beautifully embroidered bags. The party mutter, shift and look uncomfortable. They bought beadwork for presents at the beach, and they don't really want to buy more. But they don't like to refuse her as she picks up first one item, then another, to show the women. It's all too difficult, not knowing the price or the value of things, not being bargainers. They don't want this. They feel impatient. One of the women considers a beaded bag, decides, and fumbles in her pocket for a crumpled note, hardly noting its value. She smiles awkwardly and presses the note into the old woman's hand. ‘Shukran’ (Thank you). The party turns quickly to leave, embarrassed by a test of manners that they feel obscurely they have failed. Fathiya unfolds her hand. In it lies a note worth ten Egyptian pounds115. The bag had taken her daughter-in-law a week to make, and who knows when more people would come? ‘Al hamdulillah!’ (Thanks be to God!) she says.

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114 The gossa, designating married status, is a plait wrapped over to form a unicorn-like ‘horn’ stiffened with goat or camel urine. Universal 15 years ago, all but the oldest married women have now abandoned the practice.
115 Just over $1; less than £1.
August 2008: ‘Wadi Haemid’

3.30 pm: al 3asr (afternoon prayer)

It is quiet in Wadi Haemid, and very hot. Goats bleat here and there; a camel grumbles. The early afternoon wind is still up, dashing sand in light gusts against fertilizer bags that fill the gaps at the bottom of ‘Omm Rajab’s116 open-sided room. Over towards the sandstone cliffs two small whirlwinds rise, racing each other, spraying sand across the summer settlement: djinni (spirits), people call them; little devils making mischief. There is no mosque in ‘Wadi Haemid’, no call to prayer; just eight makeshift summer dwellings, half-shelter, half-tent.

‘Omm Rajab stirs on her mat, rolls over and sits up stiffly. Her joints ache all the time these days and she feels queasy: it’s the salt in the water they get from the truck, she says. Terrible quality – she’s heard one driver was seen filling his truck at the sarfa sahha (sewage treatment plant) in Katriin! She delves in her pocket for her old tobacco tin, and makes herself a meagre roll-up. She’ll have to make the most of her green tobacco now: ‘There’ll be no more where this came from,’ she says.

The fire is still just glowing, and she refills the teapot. Rajab and the men who came to eat with him have gone back now, to salvage what they can from the gardens. She’d stewed potatoes, tomatoes and onions for lunch; tasty enough, but not enough for guests. A bit of luck that Rajab had caught that dhabb117 this morning! That gave them something to chew on, al hamdulillah! But ‘Omm Rajab herself ate nothing; she has no appetite since her son came home this morning and broke news that the army had come in the night without a word of warning and wrecked all their gardens. Nothing was spared, not even Sheikh Suwaylim’s lovely garden. He was beside himself, the men said; rushed over when he heard, promised to give the soldiers the deeds to the land if they’d stop harming trees he’d nurtured for years. But it made no difference. They cut the water pipes, broke down trees, trampled crops and herbs. They said it was a military area and no-one was allowed to have gardens there. But it was the first any of them had heard of it! Mzeina have had land in ‘Wadi Harr’ for as long as anyone can remember, and no-one has stopped them planting it before. No-one can understand it; but they are angry, apprehensive, ta3baen (worn out, sick at heart). Where can they go now where there’s good water and it’s safe to plant? Rajab’s friends said the same thing had happened to the gardens in ‘Wadi Sahl’. What are they supposed to eat? he had asked. You don’t catch lizards every day. If they have no vegetables there will be no scraps for the animals; the grazing is so poor these days, and

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116 ‘Mother of Rajab’. Parents are often known as ‘Mother’ or ‘Father’ of their eldest son (or where they have no son, eldest daughter).
117 Uromastyx ornata; a large fleshy lizard

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they can’t afford to buy silage. It’s not as if there is any other work here. Call this a life?” she asks bitterly, sipping her scorching tea. We should all go and live in Israel!118

Rajab comes back, kicking a stray chicken aside. He is on his mobile. ‘Yes, bring them over!’ he says. Mafish moshkela!’ (No problem!). ‘Hussein, a young guide from Katriin, has a small group of French travellers. Nice people, he says; interested in music. One is doing research. He wants to hear ‘real’ bedouin music. They will be there in an hour, insha’allah! ‘Omm Rajab creaks to her feet. It is not a good day to have guests - there is too much else to deal with. But perhaps the ajaenib (foreigners) may buy something – her old burga119 perhaps? Divorced for fifteen years, she doesn’t mind parting with that. Or maybe one of her rugs? She has a special reputation for her wool work; spins her own camel hair, still weaves shogga (tent panels); but no-one buys those.

A jeep pulls up and doors slam; Hussein coughs outside to let her know he’s there. “Omm Rajab! As-salamu aleikum! (Peace be with you!)’ Salaam wbarakaet!’ (Peace and blessings!) she replies curtly, cutting short the long formulaic reply. She steps outside. ‘Ahlan!’ (welcome!); she greets the young French party half-heartedly, and motions them inside. The two young women look tentative; their first time in a bedouin home. Asseyez-vous! urges Hussein; and they kick off their sandals and sit on a rug. Hussein offers ‘Omm Rajab a cigarette while she makes tea. She fills him in on the night’s events; he hadn’t heard. He grows sombre. They sip tea in silence; but then there is work to be done.

“Omm Rajab, this is Dr Jean-Philippe. He is studying bedouin music – yeah, really! He wants to hear you play the shibaeba (shepherdesses’ flute). Is that all right?’ When she was young no girl would have played the shibaeba in front of a man. But now that the world is inside out, if foreigners want her to play the shibaeba she’ll play it, if they make it worth her while.120 But first, perhaps the girls will buy something? She goes behind a dividing curtain and comes back with an armful of stuff: her flute, her burga, a newly-woven floor rug, a new jalabiya that Rajab bought her last ‘Eid but she hasn’t worn yet. She lays them out. Hussein looks dubious. The girls look embarrassed. ‘Je suis desolee! Nous n’avons pas d’argent avec...’121 ‘Never mind,’ Hussein smiles. ‘J ust the music, ‘Omm Rajab. And is it okay if the Doktor records you?’ She shrugs assent, and an LED flashes into life. She seats herself in front of the visitors, picks up her flute, and begins to play the secret amorous airs of her girlhood.

118 ‘Omm Rajab - a classic zamanista - retains a romanticized view of the past. Greater awareness of the condition of Bedu in Israel today might make her less ready to adopt this solution ( Jabukowska 2000; Manski 2007).
119 The embroidered face-cloth hung with silver spangles worn by married bedouin women in the past.
120 See Lavie (1990) for similar accommodations, and note 91 re: the sexual significance of the shibaeba.
121 ‘I’m so sorry! we didn’t bring cash.’
Chapter 6

‘Bedouin overgrazing’ in St Katherine: degradation or discourse?

My fieldwork began in Spring 2007, by which time I had visited St Katherine almost annually for 15 years. One of the most striking factors over that time was the near-disappearance of grazing livestock from in and around the village. Groups of girls leading their flocks up hillsides and wadis in the early morning, and bringing them home at dusk, had seemed a perennial element of bedouin life. It is now rarely seen in Katriin. As noted in Chapter 2.2, before the Israeli period South Sinai Bedu maintained flocks sufficient to support an average pastoralist family anywhere: a minimum of 50 animals, and typically 60-70. Seasonal migration and customary grazing restrictions addressed the risks of grazing pressure (Perevolotsky et al 1989, Hobbs 1995). The population was highly dispersed: even today, when South Sinai’s total population has grown exponentially, it is still less than two people per km², compared with 68 in mainland Egypt (UNDP 2005).

As we have seen, the integration of Sinai into the Israeli economy following the Occupation, and the consequent need for Bedu to earn much higher cash sums, meant that after 1967 far more people settled in order to access employment. By 1977 only 30-40 Jebeliya families were still practising seasonal transhumance, compared with 100 in the immediate past (Perevolotsky 1981). The impact was to create intolerable local pressure on winter grazing, forcing people to buy in expensive supplements. Bedouin response was immediate: people reduced flock sizes from previous norms (78 ± 42) to typically 13 animals (Perevolotsky et al 1989). Based on interviews in 2003-4 Zalat & Gilbert (2008) report median flock sizes of 7-8. The impact of low or absent rainfall (Table 7.6) on available pasture is the reason given by most livestock-owners in St Katherine (2007-9) for reducing their flocks to typically fewer than six animals today (Fig 7.2), significantly smaller than flocks outside the town (Table 7.1). I found that the majority of town residents never pasture their animals outside at all (Fig 7.3), keeping them permanently confined and fed on scraps and imported barseem (Alfalfa: Medicago sativa). Two-thirds of the livestock owners I spoke with across the whole study area buy in supplementary feed all year round due to lack of natural pasture (Fig 7.4). Thus while the number of people with animals in Katriin has increased, drastically reduced flock size, changing animal husbandry practice and official grazing restrictions in the town have all but removed livestock from the main urban area, reducing the number of animals grazed outside to a fraction of its pre-1967 level. After the initial impact of sedentarization, then, rapid de-stocking and changes in practice have dramatically reduced grazing pressure on St Katherine over 40 years; yet standard conservation narratives still assume it to be

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[122] Following the City Council’s municipal planting - against Protectorate regulations - of decorative but poisonous non-native plants, animals have been banned from the village centre. No-one seems quite sure whether the ban is intended to protect the livestock or the council flowerbeds.
responsible for declines in vegetation that threaten biodiversity in the Park. Environmental literature on St Katherine, both grey and published, focuses consistently on the destructive effects of ‘overgrazing’ by Bedu in the Protectorate and the need to control or educate them in order to prevent it. My observations and interviews suggest this is wasted effort: the Bedu took action years ago, responding to environmental stimuli rather than state-led authority. But in St Katherine, an unchallenged assumption of bedouin destructiveness continues to inform the conservation agenda.

In this chapter my aim is not to suggest that grazing has no negative impact on vegetation: every commentator agrees, and customary restrictions testify, that in certain conditions it does. I aim rather to examine why the assumption is so powerful that it survives alternative explanations and contrary evidence.

Discourse, degradation and the ‘Tragedy of the Commons’ in St Katherine

Grazing domestic animals, according to Perevolotsky (1998:1008) is not only a biological or economic process but also a sociopolitical activity involving different actors and their attitudes to the landscape: in this case scientists, practitioners and Bedu. Conservation science produces knowledge within the same rationalist paradigm that underpins Egypt’s modernizing project. Egyptian and western environmental visions coincide in conservation planning, producing a landscape threatened by backward people who need to be educated, improved and controlled in order to save it. The Government wishes to ‘develop’ its citizens, to move ‘along a predetermined track, out of ‘backwardness’ and into ‘modernity’ (Ferguson 1997: 144). In this evolutionist vision, Bedu are seen at the far end of a continuum of ‘progress’, part of the world of ‘nature’ rather than ‘culture’.

By using scientific theory to devise solutions that ignore political causes of environmental degradation, conservationists may reinforce dominant narratives and propagate social inequality. One such narrative is pastoral destructiveness. Leach & Mearns (1996) examine the power of narratives of environmental change in shaping conservation policy; concepts that have acquired the status of ‘received wisdom’, and that persist whether or not the methods and motives that generate them bear critical scrutiny (1996: 14). In the case of pastoralist degradation, Fratkin (1997: 242) comments: ‘the accusation... has achieved the status of a fundamental truth so self-evident...that marshalling evidence in its behalf is superfluous if not...absurd, like trying to satisfy a skeptic that the earth is round or the sun rises in the East.’
The ecological case for the prosecution rests on two assumptions: first, that vegetation cover is primarily determined by the impact of grazing, so that plant population dynamics are critically dependent on livestock density (Brockington & Homewood 2001: 452). At the point at which production of vegetation equals the rate of its consumption by animals, so-called ‘ecological carrying-capacity’ is reached. At this point, ‘if managers want denser vegetation or healthier animals, then they must maintain fewer animals’ (Behnke & Scoones 1993: 4). However, the second assumption is that, left to themselves, pastoralists are inherently unwilling or unable to act on this principle. The theory is articulated in terms of a ‘Tragedy of the Commons’ (Hardin 1968), in which: ‘As a rational being, each man seeks to maximize his gain...But this conclusion is reached by each and every rational herdsman sharing a commons....Each man is locked into a system that compels him to increase his herd without limit – in a world that is limited. Ruin is the destination towards which all men rush, each pursuing his own best interest ...’ (1968: 1244). As a model the ‘Tragedy of the Commons’ is not inherently wrong, but neither is it universally applicable; its predictive power is limited (Ostrom 1990). As we have seen, Bedu have developed resource management systems that curtail individualism in the common interest; some can even be described as ‘reciprocal altruism’ (Perevolotsky 1987).

Most sources I cite on SKP accept it as given that traditional conservation methods enshrined in bedouin law have broken down, died out or been forgotten, and offer this as a reason for vegetation loss. Hobbs, Grainger & Bastawisi comment that: ‘There is abundant oral testimony that the present poor environmental conditions are a consequence of the breakdown of traditional conservation methods that previously helped to maintain the quality of pastures for Bedouin livestock’ (1998: 240). This ‘breakdown’ neatly justifies the Protectorate’s intervention, but my findings were quite the reverse. My respondents told me consistently that they still have regulations to protect the environment, legally upheld. Ostrom (1990: 212) notes that successful adaptation of traditional common-pool resource management systems depends in part on the attitude of governing regimes. This might have militated against it in South Sinai; but customary law here is not only recognized but actively applied (Bailey 2010). Perevolotsky observed not only that grazing restrictions ‘appear to be upheld by all’ (1989: 156), but that new grazing agreements were swiftly put in place in the wake of sedentarization, not only in Katriin but also in Bir S3aal, Wadi Feiran, Wadi Baghaba and elsewhere. Bedouin law governing resource use has not broken down: the problem, as people explained it to me, is that due to poor rainfall there is so little left to conserve.

123 These systems satisfy criteria which Ostrom suggests are necessary for local success: they are designed by and relate to a specific set of users, monitored by individuals accountable to them and enforced with graduated sanctions (Ostrom 1990: 186).
The PA Management Unit views vegetation loss as a direct result of overgrazing, demonstrable by comparing photographs of lush greenery from the turn of the century with present-day scarcity (SKPMU 2003: 69). However, Leach & Mearns (1996: 14) warn that such limited datasets produce invalid comparisons: contrasting images purport to show anthropogenic decline from ‘climax’ vegetation, but natural disturbances keep many landscapes from ever reaching the hypothetical (and contested) state of ‘equilibrium’ (Fairhead & Leach 1996b: 119). This is especially so in places with a fluctuating climate, where rainfall is the key determinant of vegetation density and ‘fodder is scarce because there is too little rain rather than too many animals’ (Behnke & Scoones 1993:8). In such arid environments, Fratkin notes (1997: 238), conservation can more usefully be based on enhancing than replacing the traditional pastoral practices that have evolved in response to them.

Nonetheless, the received wisdom - what Chatty calls ‘the now stale assumption that it is pastoralists who are overgrazing or overstocking’ (2002: 236; and see Chatty 2006) has until recently remained unchallenged in St Katherine. In the Park’s EU phase, assumptions of bedouin degradation were tempered by respect for local communities and recognition of their rights: for example the management plan speaks of developing ‘an integrated programme for sustainable grazing...with the co-operation and agreement of local communities’ (SKPMU 2003: 69). Subsequently however, while conservation literature employs the rhetoric of respect for indigenous knowledge (as I show below), at community level the PA’s approach is based more obviously in national than international discourse; one that sees Bedu as ignorant, untrustworthy and the obvious source of environmental problems. One ranger explained how the the landscape of the PA was at risk ‘because of the negative impact of the [local] population in the PA, and their low socio-economic status’ (Fouda et al 2006: 87); another how enforcement was poor because ‘Community Guards don’t tell about violations by their relatives’ (2006: 114). Another said of community education that: ‘It is hard to fulfil this with the Bedouin’ (2006: 180). ‘Don’t ask the Bedouin about plants and animals’, Hobbs was advised by an Egyptian vet in Katriin. ‘They don’t know anything’ (1995:215).

As Cooper & Packard (1997: 26) point out, it is more judicious for analysts to explain environmental degradation in terms of a ‘tragedy of the commons’ than to highlight the political and economic forces that produce it, which risks alienating local national states. The need for international development to present itself simply as a neutral source of expertise, distanced from national politics, is likely to have shaped the way vegetation loss was problematized during SKP’s EU phase. However, the fit between received narratives of irresponsible pastoralism and the perceptions of Egyptian conservationists has ensured that
this piece of ‘received wisdom’ has survived contradictory evidence, even that produced by scientists and PA rangers themselves.

The approach in St Katherine fits snugly with the EEAA’s view of indigenous people and their problems across Egypt: ‘Modernization and development are bringing changes, causing [indigenous] communities to lose their traditional knowledge and practices, which leads inexorably to unsustainable use of natural resources and a vicious circle of resource abuse and further poverty’ (NCS 2006: 40). The plan for St Katherine, whilst benignly couched in terms of benefitting from local people’s knowledge and gaining their co-operation, explicitly focussed its conservation effort on ‘reducing or eliminating destructive Bedouin uses of resources’ (Hobbs 1996:5). I examine this paradox below.

Competing claims and counter-claims have created a complex picture respecting grazing and its impacts in St Katherine. Table 6.1 below breaks the position down into different components, and presents alternative views. I look now at scientific studies based on unquestioned assumptions of ‘Bedouin overgrazing’, consider alternative evidence, and assess the social and discursive basis of this persistent narrative.

Table 6.1: Contrasting views of ‘Bedouin overgrazing’

<table>
<thead>
<tr>
<th>Received wisdom</th>
<th>Alternative view</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental change</strong></td>
<td></td>
</tr>
<tr>
<td>Bedu damage the whole ecosystem by overgrazing</td>
<td>Bedouin-generated damage limited to areas pressurized by sedentarization; ecological status of high mountains improving</td>
</tr>
<tr>
<td>Vegetation cover depleted by overgrazing</td>
<td>Vegetation requires stimulus of grazing in order to regenerate</td>
</tr>
<tr>
<td>Vulnerable spp threatened by grazing</td>
<td>Threats generated by a range of natural and anthropogenic factors other than grazing</td>
</tr>
<tr>
<td>Vegetation change caused by overgrazing</td>
<td>Vegetation change caused by lack of rainfall</td>
</tr>
<tr>
<td><strong>Resource management</strong></td>
<td></td>
</tr>
<tr>
<td>Increasing population in Katriin leads to ever-increasing grazing pressure</td>
<td>Bedouin husbandry practice adjusted over time by accelerated flock size reduction and permanent penning; new immigrants not herders</td>
</tr>
<tr>
<td>Grazing wild plants is primary source of flock nutrition</td>
<td>Wild plants represent minute percentage of intake compared to supplementary fodder</td>
</tr>
<tr>
<td>Traditional grazing restrictions have died out</td>
<td>Resource management still operates where vegetation cover permits traditional grazing</td>
</tr>
</tbody>
</table>
The SKPMU management plan identifies ‘localized overgrazing’ as one of the major problems in the Protectorate (2003:69). The evaluation of SKP produced by Paleczny et al goes further, suggesting a worsening scenario: their Threat Analysis classifies the extent of overgrazing by domestic animals as ‘High’, defined as affecting 40 - 75% of the whole Protectorate (2007: 24-25). Paleczny et al list the causes as the concentration of Bedouin communities around the Monastery; and that wild plants provide a ‘cheap source of fodder’ for livestock. The prescribed SKP policy is to introduce an integrated programme of sustainable grazing, particularly in critical plant habitats, with targeted actions including the maintaining and monitoring of plant enclosures to demonstrate the impact of grazing (2003:69). Paleczny’s report goes further, prescribing ‘public awareness’, an overgrazing study, and the revival of *hilf*.

The enclosures, and the tellingly named ‘overgrazing study’, refer to research in the Protectorate which has done much to propagate the view that grazing by Bedu causes widespread damage and threatens biodiversity. In 2001 ‘Abd-el Raouf Moustafa published two interpretations of botanical data collected in the Protectorate in 1996 and 1997. One (Moustafa et al24 2001a) evaluates plant diversity and endemism; the other (Moustafa 2001b) assesses the impact of grazing on its vegetation.

The first paper explains that the area represents ‘a great harbor of endemism’ due to its climate and geology. Some 90% of Sinai’s 33 endemics, Moustafa explains, are found in the central massif, noting that species diversity is correlated significantly with moisture, vegetation cover and elevation. The object of the paper is to ‘review the current state of botanical knowledge in St Catherine’ (which had never been systematically investigated), identify locations of high botanical conservation interest, and recommend conservation management interventions’ (2001a: 123). Moustafa's study was one of the first major field studies of botany in the Protectorate. He notes that: ‘continuous overgrazing, overcutting and uprooting (for fuel and medicinal uses) resulted in disappearance of pastoral plants, paucity of trees and shrubs as well as disappearance of many rare and endemic species.’ Given the absence of baseline data in the Park (several species were identified there for the first time by Moustafa’s own expeditions25) this assertion does not appear well-founded. Moustafa even recommended that to protect plant species the Park should be zoned to excluded all human activity from its core; a more draconian solution than any envisaged by the PA. This recommendation was not adopted; but Moustafa also proposed establishing

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124 Moustafa was then an academic botanist at Suez Canal University, Ismailiya, as were two of his co-authors. The fourth was the Egyptian director-designate of the Protectorate.

125 I took part in the second, to Jebel Serbal in May 1997.
enclosures to protect vegetation from grazing, which the PA duly did. I return to these below.

The second paper sets out to quantify grazing intensity and asks how grazing changes local vegetation and its structure. It needs to be interpreted with some caution. Key assumptions are hard to ‘ground-truth’, and appear not to be based on available published evidence: for example, Moustafa starts from a premise of pre-Israeli stocking levels (50-60 head per family)\textsuperscript{126}, and assumes continual outdoor grazing (2001b: 219), which as we have seen was in decline from the mid-70s onwards (Perevolotsky et al 1989). The ambitious scope of his study may have led to a sacrificing of depth to breadth\textsuperscript{127}: for example, Moustafa notes as one consequence of overgrazing the emergence of ‘unpalatable’ plant communities (2001b: 226); however, species he cites as unpalatable have been identified subsequently by PA rangers as typical, or even favourite, forage (Rashad et al 2002)\textsuperscript{128}.

Moustafa claims to have established a negative correlation between grazing intensity and species richness, and a positive correlation between grazing intensity and percentage of endangered species, though his findings are poorly supported by his data (1991b: 223,225). However, he concludes unequivocally that the vegetation in South Sinai is subject to ‘severe grazing,’ stating: ‘Some localities have a small number of endemic species...other wadis showed no record of endemic species due to the huge pressure of grazing and tree-cutting effects’ (2001b: 225, my emphasis). No evidence is provided that there were ever any endemics in these wadis, and Moustafa’s own research suggests otherwise. The wadis he mentions as having few endemics are at medium or low elevation (Ajramiya, W Nasb, W Isla). Those mentioned as having no endemics and low species diversity (Nabq, el Kid, W Yahmed, Lethi & Mandar) are south-easterly and at low elevation (in one case at sea-level), receiving tiny amounts of annual rainfall: Perevolotsky (1981: 334) gives a mean 11.5 mm per annum on the Aqaba coast during the 70s, with no rain at all in some years; the prolonged period of little or no rain in the 1990s would have reduced mean precipitation still further by Moustafa’s time. Moustafa’s contemporary findings (2001a: 133) are that high levels of endemism are positively correlated with elevation and soil moisture content, while an earlier study (Moustafa & Kamel 1996) found that the number of plant species was positively associated with increased rainfall. His findings here, then, are exactly what his own ecological analysis would predict; yet he offers no interpretation but biodiversity loss caused by destructive bedouin behaviour.

\textsuperscript{126} Generally reduced at least five times by the time of the research.
\textsuperscript{127} In two relatively short field seasons his small team set out to survey 162 x 500m transects in 18 locations, some hundreds of km apart, in extraordinary detail (1991b:220).
\textsuperscript{128} For example Fagonia mollis is quoted by Rashad et al (2002: 23) as making up 15% of the total diet of goats.
The verdict of Gillson et al from a different context (2003: 377) is apposite here: ‘This work is not careful science. It is reminiscent of an environmental narrative that persists independently of the evidence available....The weaknesses of this [study], which laid out the case for degradation so carefully, suggest fragility in the foundations of degradation thinking.’ As I showed in Chapter 5, the Protectorate’s records show little ecological damage to the high mountain area (see Box 5.2); rather, over time, its ‘demonstrable improvement’ (Paleczny et al 2007: 7). This might be thought to undermine Moustafa’s case. Even if the improvement were read as the effective working of conservation measures, as Gillson et al point out, so rapid a recovery from predicted apocalypse might call the forecast into question. However, the narrative continues to flourish.


Far from showing declining vegetation cover, Mabrouk’s findings demonstrate a small overall increase in biomass in the mapped areas (supporting the Protectorate’s subsequent assessment [Paleczny et al 2007]). Mabrouk’s five study areas in and around Katrin follow or overlap with grazing ranges identified in a study of grazing carried out by Park rangers (Alqamy et al 2002). The central, municipal section of Mabrouk’s map shows increased vegetation thanks to the Council’s flowerbeds. Relatively low surrounding areas show limited negative change. The areas showing major change are the High Wadis of the Jebel system west of Katrin (59% increase); the Madsous system wadis farther west still (73% increase), and Farsh Zubir to the south-east (77% decline), all of which fall outside the popular grazing ranges charted by the rangers’ study (Rashad et al 2002). Mabrouk’s explanations (2008: 191-195) are as follows. In the high wadis, the increase is probably due to the reduction of seasonal migration to the mountains, meaning there is less grazing. Where patches of reduction are detected, he comments, this may indicate grazing activities that the rangers’ study did not detect. In the Madsous system the increase may be due to new orchards but also to ‘less grazing on steep slopes that seems to deter herders’. In Zubir, ‘the negative change deeper into the territory and beyond the range of the grazing regions, suggest that the grazing activities are much wider than the current known extents’ (my emphasis). Rashad et al (2002: 12-13) make clear that even the biggest grazing ranges at the edge of settlements never exceed 5-6 km² as this is the farthest the small mountain livestock can cover in a day. Rampant extended grazing is therefore unlikely to account for vegetation.

129 Mabrouk completed his MPhil in the Dept of Geography, University of Nottingham
130 The study was subsequently published as Rashad et al (2002), and is referenced as such in what follows.
loss on Zubir, since Mabrouk’s study area extends at least four km beyond the outer limit of Rashad’s observed ranges. However, taking his cue from Moustafa, Mabrouk offers no explanation of degradation or improvement other than the presence or absence of grazing. Research available to him suggests that other explanations are at least possible. Rashad et al (2002: 29) report that 2001-2002 were exceptionally dry years, in which annual plants, accounting for some 30% of the total flora and more dependent on rainfall than perennials, barely surfaced. The south/south-easterly aspect of Farsh Zubir, its impermeable black volcanic rock and hyperaridity, might have ensured that the scant moisture dried up and that the year’s whole growth of annuals was lost. We cannot know; but it is a defensible explanation and one worth entertaining. Furthermore, Perevolotsky et al (1989: 156) explain that the preferred pasturage of livestock in this area is the annual vegetation. If this were suppressed by climatic factors in 2001, it is all the less likely that shepherdesses would have led their flocks beyond their range into a hard-to-reach area without good pasture. Overgrazing, then, seems at best one explanation amongst others that might account for Mabrouk’s findings, and not the most plausible at that. Nonetheless, the received wisdom remains unchallenged: Mabrouk comments that even areas his technique shows to have improved may still be overgrazed.

Gillson et al (2003) point out that different interpretations of environmental degradation result in part from divergent conceptual models of nature: whether nature is seen as being in equilibrium or non-equilibrium, in balance or in flux. This perspective can help illuminate the overgrazing narrative, and is illustrated by the marked difference in approach of Perevolotsky and Moustafa. The purpose of Perevolotsky’s writing is descriptive rather than prescriptive. His research describes the impact of the Occupation on bedouin household economics and agricultural practice. He records the topography and ecology of the area, including its geology and the plant communities that accompany it at different elevations, together with the changing impact of climatic effects on them from year to year. He records how detailed knowledge of these factors enabled bedouin herders with 50 or 60 livestock apiece to exploit their surroundings in order to provide annually, on average, six months’ family subsistence prior to 1967 (Perevolotsky et al 1989). Grazing followed a pattern of seasonal migration. Use of pasture at risk of grazing pressure, and seasonal fluctuations in pasture due to patchy rainfall, were regulated by resource management and sharing systems enshrined in customary law and strictly observed (Perevolotsky 1987, 1989:156). Perevolotsky has no explicit conservation agenda, and seems to accept fluctuating conditions as a natural state: he attributes variations in vegetation either to ‘dry years’

131 Gillson & Hoffmann (2007) have subsequently pointed out that grazing systems dependent on annuals are more likely to be disequilibrial, with herbivore numbers regulated by random environmental variation, because of the increased likelihood that no plants will grow in years of drought.
(1989:160) or to elevation, noting the ‘favourable conditions’ of the high mountain region for animal husbandry compared with the rest of the Sinai desert (1989:162).

Moustafa, on the other hand, has a strong conservation agenda: he writes to sound an alarm. He takes an ‘equilibrium’ view of nature: that the ‘man-made’ impacts he records contribute to a disastrous and possibly irreversible decline from ‘ecological stability’ to species loss and destruction. As a scientist he has imbibed the discourse of international conservation (‘The disappearance of large numbers of plant and animal species is by now well-documented both worldwide and in Egypt...’ [2001a:123]); and as a conservationist he assumes responsibility, through policy recommendations, for halting that decline. The three researchers I have discussed at times describe identical places and habitats, but where Perevolotsky sees a series of natural plant communities, some naturally sparse according to elevation and climatic factors, Moustafa and Mabrouk see evidence of bedouin-induced overgrazing that demands corrective action.

Rashad et al’s (2002) study provides a wealth of balancing evidence. Although the rangers complain that lack of staff time made data collection patchy, their study of movement of domestic flocks over grazing ranges in and around Katriin, done by attaching GPS collars to livestock and mapping their movements with GIS software, provides hard evidence of the limitation of ranges; while their study of consumption patterns provides valuable information to guide conservation priorities. Their findings can be summarized as follows:

- the foraging range of a flock increases the further from a village or settlement it is based, but never exceeds 5-6 km² in a day; this means that grazing pressure decreases away from settlements.
- Animals spend 90% of their time between 1500 and 1800m, less than 6% above 2100m; this means that grazing pressure decreases with altitude.
- Mean time spent actually eating plants is approximately 5% of time spent foraging/sampling.
- Estimated mean ‘grazing impact’ ² per km² is 33 minutes per month by all animals.
- Goats recorded as grazing 4 endemics, 3% of daily bite frequency. ³
- Sheep recorded as grazing 2 endemics, 0.02% of daily bite frequency.
- Daily consumed wild biomass per goat = 21 g
- Daily consumed wild biomass per sheep = 16 g
- Total daily dry-weight requirement per animal (sheep and goats)= 500-600 g
- Wild plant consumption = 2-3% of daily diet of average flock, remainder supplied by supplements

² Also described as ‘grazing presence’, I take this to mean foraging, sampling and eating combined.
³ Of these spp none is listed as threatened in the PA’s management plan (SKPMU 2003), but one - Rosa Arabica - is protected by the PA from collection (Hurst 2010).
The rangers demonstrate that total grazing, even in well-used grazing ranges, averages only 33 minutes per month\textsuperscript{134}; that 97-98% of animal feed consists of supplements; and that flocks hardly stray into the high elevations associated with endemism and diversity. Mabrouk's data show only a 1% net reduction in plant biomass in the Lower Wadis where grazing is concentrated, and net gains in the high wadis associated with endemism (2008:194-5). Nonetheless, despite their own records of the very limited biomass consumed by grazing (see above), the rangers conclude that grazing is having a negative impact on valuable plant communities, making the area vulnerable and exposed to deterioration in species richness. They hope the study will inform ‘future grazing management practices imposed by decision-makers’ (2002: 29: my emphasis).

This dominant narrative, persisting despite missing or contrary evidence, has propagated itself like a game of Chinese whispers, taking subtly different forms as it spreads. Hoyle & James have modelled the potential impact of both climate change and ‘direct, human-induced habitat destruction caused by grazing’ on the endangered endemic butterfly, the Sinai Baton Blue (\textit{Pseudophilotes sinaicus}). Their model is based on assumptions that grazing intensity is directly proportional to the rising human population,\textsuperscript{135} and that herds 'usually completely sustained by grazing', which as we have seen is not the case. James’ sites are remote from settlements and at high altitude: a later publication (2006c:71) specifies that the \textit{Thymus} patches in his study occurred between 1875 and 2220 m, reaching ranges at which Rashad’s data show grazing animals spend only ‘minute fractions’ of time\textsuperscript{136}. Even while the likelihood of grazing damage is limited, then, bedouin livestock are presented as a potential major threat to the butterfly’s survival.

An important rider is needed here. Everything I have referred to, whether research or practice, is work in progress to understand the ecology of St Katherine Protectorate and the relationship of its human populations with their surroundings. This work, as yet, is in its infancy. It spans barely a quarter-century, and has coincided with two prolonged periods of minimal rainfall compounded by anthropogenic change. As yet we understand little: much of the research effort to date has been devoted simply to documenting what is there.\textsuperscript{137} Francis Hurst, advising the latest phase of a project studying medicinal plants in the PA\textsuperscript{138},

\textsuperscript{134} Though the mean masks heavier grazing in some places; 6% of the 38 km\textsuperscript{2} monitored area was grazed >500 minutes per month.
\textsuperscript{135} Local population increase is due to immigration by Nile Valley Egyptians, who do not keep flocks.
\textsuperscript{136} This rather calls into question the conservation impact of the \textit{hel}’ established to protect both species from grazing (NCS 2006:41); I explore its social purposes below and in ch 5.
\textsuperscript{137} With glorious irony, the research effort itself appears to be half the problem: Paleczny et al (2007:27) reports ‘over-collection of medicinal plants for scientific purposes, particularly by the [GEF-funded] Medicinal Plant project and the Egyptian university staff who stay at the Suez Canal Research Center.’
\textsuperscript{138} The GEF-funded CBNRM medicinal plant project, to which I shall return.
notes that the complexity of the socio-ecological system in St Katherine is such that our understanding of causal relationships between its variables is still poor (2010: 3). Research has mostly taken place in association with an institutionally compromised authority whose resources do not match the scale of its task. It is a real achievement that the commitment of researchers and practitioners to the place has resulted in a growing body of research, with new work regularly permitting revised outlooks and understandings. Thus Hurst (2010: 9) can now comment: ‘It is important that we understand the effect of grazing and collecting on the health of the [plant] population. There is sufficient evidence from the enclosure monitoring... to indicate that these plants are adapted to grazing and/or collecting’ (my emphasis). The enclosures he refers to are those set up following Moustafa’s recommendations and monitored by the Protectorate. Hurst asserts: ‘The local Bedouin community have consistently claimed that rainfall is the principal limiting factor of [medicinal plants], often stating that the plants actually need a degree of of harvesting or grazing to maintain their vitality.’ Moustafa’s expectation was clearly that vegetation would improve when animals were excluded, and in some cases, in areas with especially heavy human and animal traffic, it has. However, in other cases the reverse has happened, and commonly-grazed plants have flourished outside the enclosures while those inside tailed off. (These data, collected by rangers, are referred to by Hurst but as yet unpublished; but for an illustration see Fig 5.1 below. A new unpublished dataset (Gilbert et al, nd) provides further supporting evidence, showing improvement in stands of *Thymus decussatus*, the critically endangered host-plant of the Sinai Baton Blue butterfly, outside the PA’s enclosures.) Hurst comments: ‘There is little empirical evidence to support excessive grazing as a contributor [to vegetation loss] in all but a few of the wadis’ (2010:7); but what empirical evidence we do now have is thanks to Moustafa. Everyone whose work I have cited has contributed data that permit revised understandings of the ecology of St Katherine; recognizing this, in examining the ‘overgrazing’ narrative I have tried to highlight only places where it was adopted without reference to available alternative evidence. For the first time, experimental data are being produced that enable the received wisdom to be interrogated. Whether, as Brockington & Homewood (2001:475) question, this can be done dispassionately in the light of ‘conflicting views...different values and goals, and...diverse local, national and international political agendas’ remains to be seen.
Fig 5.1: Impact of enclosures on quality of vegetation, Wadi Fara’a, Ras Safsafa, 23/05/2007.
I have noted that the ‘overgrazing’ narrative fits with national views of the Bedu; but it is interesting to ask why, when herding is visibly declining and its impact demonstrably reduced (Hurst 2010), it retains such influence. A much better case could now be made for the destructive impact of medicinal plant collection, which features regularly as an issue in the SKP literature I have cited, yet which has not become an idée fixe. What does the persistence of the ‘overgrazing’ narrative mean? I would suggest that overgrazing focusses on that aspect of bedouin life in which their ‘otherness’ is most evident: their identity as pastoralists. As such it draws attention to everything that makes them most suspect to the Egyptian state: loyalty to tribe that ignores nation-state boundaries; mobility and autonomy rather than settled citizenship; bedu versus hadar. The desert, traditionally the realm of purity in Islam, is also the realm of chaos for Egyptians (Johnston 2004). It is ‘illegible’ to the authorities: its rainfall, vegetation and flash floods are unpredictable, uncontrollable by science or government. Its inhabitants, however, can be brought within the purview of the state, made subject to rational control. It is perhaps significant that Egyptian science-led conservation seeks to control above all that aspect of bedouin life that exemplifies their non-conformity. In this it pursues, consciously or unconsciously, the nation-building agenda of the Egyptian state.

However, finding a rationale for controlling the Bedu may not alone account for the persistence of the ‘overgrazing’ narrative. Mitchell’s case study of architecture, fellahin, and the ‘model village’ of Gurna (2002: Ch 6) offers illuminating parallels with conservation, Bedu and ‘overgrazing’ in St Katherine. Mitchell describes government efforts since the 1950s to remove, sanitize and relocate a village population on the west bank of the Nile near Luxor, with the joint objects of removing their disturbing poverty from the gaze of tourists, and of building the image of a modern but ‘authentically Egyptian’ state by designing a replicable ‘model village’ in vernacular ‘heritage’ idiom. In the face of long-standing resistance by residents the plan was eventually abandoned, but not before attempts to coerce the villagers’ acceptance had led to their vilification as squalid, ignorant tomb-robbers. The architect, Hassan Fathy, had started from the innovative position of consulting the villagers and involving them in planning, aiming ‘to revive the peasant’s faith in his own culture’, and to turn the area into an ‘open air museum and cultural preserve’. But, Mitchell says: ‘There had to be some lack, something missing from the peasant, for even a sympathetic modernizer to transform his house into a national style’ (2002: 187, my emphasis).

I suggest the same logic can be applied to conservation in St Katherine. There is a puzzling inconsistency in the literature between expressions of admiration for bedouin environmental
knowledge on the one hand, and the need to educate them and prevent their destructive behaviour on the other. Often these contradictory views appear unglossed alongside each other. Here is an example, from a conservation writer working closely with the EEAA:

‘Conservation, therefore, was traditionally a matter of maintaining the fauna and flora to maintain their way of life...Hunting wild animals is generally restricted to the number of animals needed for food...Harvesting plants for food, fuel or medicine is also more or less regulated. The pastoral nomad knows only too well that if his flocks overgraze an area, there will be fewer plants next time there is rain.’ Two lines later, however: ‘The old ways of conserving the often-fragile ecosystems are no longer sufficient. The Government of Egypt is introducing some innovative programs through which the people will maintain an interest in their environment and culture, and in the importance of maintaining and preserving them’ (Mikhail 2003:36). A brochure for South Sinai’s national parks explains: ‘Bedouin culture has been founded on strict tribal laws and traditions. Nature is respected, water is consumed sparingly...tribal law prohibits the cutting of green trees.’ The adjacent paragraph states: ‘Activities that are likely to damage habitats or reduce biodiversity are now regulated by EEAA staff in co-operation with concerned Bedouin’ (Pearson ND). Or again: ‘A conservation ethic is deeply-rooted in the Bedouin tribal system of al hilf...[but] traditional conservation systems are now largely a thing of the past’ (NCS 2006: 41). In this reading Bedu are constructed simultaneously as guardians of nature, and destructive or neglectful of it.

This paradoxical position is exemplified in the work of Yusriya ‘Abd-el Baset, a St Katherine PA ranger who has specialized in promoting the Park’s relations with local communities and its education programmes. Her Master’s thesis investigates bedouin indigenous knowledge, and how to make use of it ‘to renew the balance between the Bedouin traditional lifestyle and the protection of nature’ (‘Abd-el Baset 2005: 1). Whilst acknowledging that: ‘Their knowledge base, cultural traditions and practices relating to biological and other resources...remain a critical component in the conservation of biodiversity’, her key research question, nonetheless, is: ‘How can an education for sustainability programme be formulated so that the traditional Bedouin community can be helped to improve their environment?’ (2005: 4-5). ‘Abd-el Baset advocates educating Bedu by ‘sharing indigenous knowledge [which she terms ‘IK’] through practical processes to learn about plants, and acquire mercy towards wild animals by...learning and implementing Islamic norms.’ The Bedu are of course Muslim, but clearly not good enough Muslims to stop them despoiling the Park. Her interviews, she states, indicate that young Bedu in the town ‘ignore their valuable knowledge’: they can no longer identify plants, and their predilection for the trappings of modernity (mobile phones and the like) mean that ‘IK’ is being lost. Young adults, she says, are ‘merely concerned to improve their financial status’ (2002:22). Two young men who

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139 This has not been my experience: see Appendix 3, p226.
claimed to be interested in indigenous knowledge were unmasked by observation: one wore non-bedouin clothes, while the other’s house had ‘too many modern [aspects] such as a satellite dish, a fridge and modern furniture’ – classic cases, clearly, of what West, Igoe & Brockington (2006:17) refer to as the ‘fallen-from-grace native.’ Bedouin knowledge, ‘Abd-el Baset implies, is too important to be left in the hands of the Bedu. ‘We’ need to capture it from the older people, she implies, and teach it to their children before it is too late and ‘they’ wreck the environment through their ignorance and fondness for fridges.

Mitchell’s analysis of the Gurna project makes sense of this paradox so clearly that I quote it almost in full:

‘In projects of this sort one sees the difficulties of making the nation. [G]roups must be included by first declaring them excluded for their lack of civilization...pasts [must be] declared lost so that they may be recovered. Fathy wanted to ‘revive’ an indigenous culture as a means of developing an Egyptian national heritage. To perform this revival, he needed the people of Gurna...The Gurnawis were to be treated as ignorant, uncivilized, and incapable of preserving their own architectural heritage. Only by seeing them in this way would the architect have an opportunity to intervene, presenting himself as the rediscoverer of a local heritage that the locals themselves no longer recognized or knew how to value. As the spokesman bringing this heritage into national politics, the architect would enable the past to speak and play its role in giving the modern nation its character’ (2002: 191, my emphasis).

To conform to modern western conservation practice, Egypt has to recognize and promote the value of indigenous knowledge as enshrined in the Convention on Biological Diversity (1992)\(^\text{140}\). To do this, its conservationists need its indigenous people. But to achieve progress, indigenous knowledge has to be remade as ‘IK’, dissociated from the destructive, unscientific people who somehow managed to produce it: it is clearly not safe in their hands, as ‘severe overgrazing’ proves. It has to be turned into an education programme by properly qualified people, or used for ‘real’ conservation purposes like saving butterflies. Then – suitably Egyptianized and Islamized - it can be revived and proudly assimilated into the conservation practice of a modern state.

**Conclusion**

It has never been my intention to suggest that localized overgrazing is not an issue in some settled areas. The question animating this chapter has been how this explanation has retained primacy across all areas regardless of huge declines in livestock numbers, and despite alternative evidence. Mitchell’s analysis provides a template for understanding the mechanism I believe to be in play today: a state-led imperative, fuelled by perceptions of bedouin ‘Otherness’, for the assimilation of these inconvenient pastoralists into the Egyptian citizenry. In Chapter 8 I discuss their response; next, my livelihood findings.

\(^{140}\) www.cbd.int/convention
May 2007: Katriin: al Shamiya

6.15pm: al maghreb (sunset prayer)

'It's taken him five years to save up for that house! How's he supposed to find money to put under the table as well? He'll just have to put off the wedding. I don't know what her people will think. But it's no good going ahead and building without the papers - they'll only knock the house down like they always do... Badriya's indignation at her son's predicament is drowned out as the microphone crackles into life in the mosque, just across the road from her house's courtyard. From this distance the Call is deafening: no-one can talk above it. Allah-u akbar, Allah-u akbar! 'Ashaed-ana la ilah illa Allah! (God is great, God is great! I witness there is no god but God!)

Mabsouta nods in sympathy; her own eight children and their families give her enough to worry about, so she knows what her half-sister is going through. A postponed wedding doesn't look good. 'Al hamdulillah!' (Thanks be to God!) she says. Al hamdulillah! Badriya concurs, re-wrapping her veil in preparation for leaving, embracing her warmly and kissing her twice on each cheek. Mabsouta waves her off into the street-lit dusk: 'Ma3a salaema!' (Go in peace!) and replaces little tea glasses on their tray for one of the girls to clear up. She picks up her prayer mat from its niche in the wall, switches on the outside light and goes inside to pray.

Badriya's indignation at her son's predicament is drowned out as the microphone crackles into life in the mosque, just across the road from her house's courtyard. From this distance the Call is deafening: no-one can talk above it. Allah-u akbar, Allah-u akbar! 'Ashaed-ana la ilah illa Allah! (God is great, God is great! I witness there is no god but God!)

Mabsouta's family is scattered about her single-storey house. In the covered outer courtyard, two of her unmarried sons are lounging on cushions; smoking, relaxing at the end of the day, getting grievances out of their system. 'We'd agreed on 250 and they gave me 100 for food. I'd been guiding them all day since 9.00. And at 4.30 we get back to the camp, and they just leave! Khalas! (All over!) All they said was 'Thank you!' I said: 'Do you want a receipt for that?'

In the inside family room two of Mabsouta's daughters-in-law sit on the cushions that line the wall, frowning over their wrinkles in a hand-mirror and earnestly comparing recipes for face-masks with their sister-in-law Fatima, visiting from Tur: rosewater, ground pumpkin seed and buttermilk is pronounced better than Eve Creme from Khaled's shop. There is a moment's lull; then half-a-dozen small children pour through the door from outside, shrieking as they chase a stray balloon someone has found in the village. All the children live in this large extended family firik (compound), each nuclear family with its own house in the boundaries of the family land. Throughout the day there is a constant ebb and flow of

141 The authorities in South Sinai (chiefly City Councils and the army) may destroy any structure they deem to be illegally sited or built without proper permissions. Several incidences have been brought to my notice; in none of them have the authorities approached the owner before they spent time, effort and money on the work. It is commonly believed that this outcome can be circumvented provided the owner uses appropriate tactics.
visits between family of all degrees, and all their assorted spouses, and all their assorted in-
laws, and all the half-siblings from their father’s first or second marriages, and most of these 
mariages have produced between six and fourteen children. Relations in a single family can 
run into hundreds of people. So social life is relaxed within the wide family circle; veils 
allowed to drop in the house (though not in the courtyard; a brother’s colleague might 
chance by). Care of children is everyone’s job: men happily cuddle, kiss and play with them, 
and tantrums are rare. There is always a handy sibling or hands-free grown-up to comfort, 
distract or admonish.

Someone turns on the TV: the Egyptian version of Who wants to be a Millionaire? beamed in 
by satellite. The children sit quietly on the floor for a moment to check out the game, while 
the elder girls get on with the bags they embroider for pin-money. Sabaha, a married 
daughter visiting for the day, appears from the kitchen with a plate of konafa and a tray 
of tea. The cake produces a rush of interest and everyone piles in to the platter on the mat.

In the opposite corner, an anxious conversation is taking place. Fatima is expecting another 
baby – al hamdulillah! But her happiness is clouded by fear. Her first delivery was traumatic. 
After hours in labour the hospital doctor told her she would need a caesarian, and it would 
cost 2000LE. But she didn’t have the money, so they sent her home. Musa, her husband, 
had to rush out and sell her gold wedding bracelets to raise the money for the operation. 
Both she and baby Dina survived – al hamdulillah! - but the doctor has told her that she’ll 
need a caesarian again this time, the bracelets are gone and Musa doesn’t earn much. She 
doesn’t know what to do. She could call in the diyya (traditional midwife), but surely the 
hospital must be safer? I don’t know what’s best, she sighs: so many women don’t make it. 
It’s all in God’s hands. Al hamdulillah!

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142 An Egyptian cake made from spun wheat with a creamy filling and honey syrup, made fresh daily by Katriin’s 
Egyptian confectioner.
143 Fatima was safely delivered of a healthy baby girl.
August 2008: ‘Wadi Yamaema’

6.45 pm: al maghreb (sunset prayer)

‘Haiya 3al’ as-salah! Haiya 3al’ al-falah!’ (Come to prayer! Come to wellbeing!) ‘Ashaed-ana Mohammed ar-rasul-Allah! Ashaed-ana Mohammed ar-rasul-Allah!’ (I attest that Mohammed is the Messenger of God...) Fatma listens to the competing calls from the two mosques within earshot of the house at the edge of the village. Soon her eldest son Musa will be home; it is time to start preparing his supper. He will be hungry after his long trip back from el ‘Arish, and his wife is visiting her mother. Supper will have to come before prayer, just this once. She will make up for it later. She stubs out her cigarette, picks up her time-worn knife and a battered aluminium bowl, scattering two chickens that have been scavenging in it for scraps, shuffles into a pair of plastic flip-flops and crosses the dusty yard in front of the house to her vegetable patch.

Fatma surveys her handiwork: a quarter-feddan\(^{144}\) of neatly-tended beds, raised at the edges to keep the water in, black plastic pipes carrying water from the well behind the house. This was what brought her here from Wadi Feiran ten years ago when her husband died: the water. With Musa settled here, nearer to Tur, she made the move and came to live with him and his wife. By and large it has been a good move. There are lots of Sawalha here: she feels at home. She has had water enough, and strength enough, to grow vegetables for the whole family; and her sidr trees produce their sweet, fragrant little berries as treats for the children that last right through the winter\(^{145}\). Until recently she had plenty of surplus that Musa sold for her in Tur’s covered market, giving her a financial independence she has relished. But nothing stays the same, she says: al hamdulillah! For a couple of years Fatma has been suffering from chest pains and a cough that shakes her whole frame. More and more of her earnings are eaten up by doctors’ bills and medicines. None of these pills seem to do much good: she might just as well stick to herb teas, she says, as she’s always done. She wishes there was a decent doctor in Tur. But what can she do? She’s in a vicious circle: the more ta3baena (fatigued) she is, the less energy she has for working the land. The less she grows, the less she earns. The less she earns, the less able she is to afford treatment that might help her recover. She needs someone to help her: Musa’s job as a driver, proud owner of a tenth share in a pick-up, leaves him no time to work the land. He’s always away. But she can’t afford to pay anyone else, and since her

\(^{144}\) A feddan is an Egyptian measure of land, roughly an acre.

\(^{145}\) *Zizyphus spina-christi*: Jujube. The berries are dried and last for months. The scent of just a few can fill a whole house.
other little business was crushed she sees no solution. Fatma stoops to cut courgettes and glances across the land to an empty chicken house.

She thought the chickens would solve her problems. She'd planned ahead: she's not getting any younger. Married at fourteen; borne eight children, raised seven; widowed young: she's always been a worker, and now, at 48, it's only natural that she's slowing down. But she doesn't want to burden her son; Musa has his own problems, and his work barely provides for them all. No; when the Government announced that the ban on chickens was lifted she'd had a bright idea. She could go into business raising poultry. She discussed the idea with Musa and with friends. She would need a bank loan. By herself she didn't have enough security; but what if they pooled their resources...? The plan took shape, and - al hamduillah! - a small group of them were granted a business loan. Harsh terms - 12% - but they were confident of success: they knew the demand was there. They ordered materials to raise a shed on Musa's land. It took time for the stuff and the workmen to come from Cairo, but at last the shed went up. Then they ordered incubators and feeding equipment - from Cairo again - and eventually they were installed. Then they ordered chicks and feedingstuff. It took weeks, but eventually everything was going on nicely. Then, just when they were looking forward to their first sales, the bank called in the loan. So that was that: all the pullets killed; all the equipment sold at a loss; their savings lost; nothing left but an empty shed. If only they'd had more time! Fatma exclaims. They would have made a profit if the bank had just waited a bit. But it wouldn't.

Fatma scoops up a couple of drying onions and feels under felty leaves for small aubergines. A Toyota pulls up in a cloud of dust, and as it reaches her Fatma is racked with coughing. 'Ah, ya marhab!' (Welcome!). Musa greets his mother with a hug. In the back of the pickup, stuffed behind the consignment of goods he's driven 1500 km to collect, is a fertilizer bag filled with wool that he's brought from al ‘Arish. His mother will spin it and weave it into a nice rug. Maybe someone will buy it; he could take it to Katriin for the tourists. No-one in Tur wants such things - what, Egyptians buy bedouin rugs? he asks wryly - but tourists seem to like the old-fashioned wool-work. At least it will keep her hands occupied – since she left Wadi Feiran she gets no embroidery work from FanSina. He knows she can't bear to be idle, and she needs the money. Perhaps this rug will sell, cover the next doctor's bill, insha'allah! It is getting dark. Together they go inside.

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146 See note 3 above.
147 Bedu, of course, have little tradition of building: most construction work in Sinai is done by Egyptian workers. All commodities are restricted in Sinai; building materials and specialist equipment has to come from Cairo and deliveries involve negotiating multiple checkpoints which can cause severe delays. (Source: personal observation and numerous conversations.)
148 See Chapter 5. The Katrin-based handicraft project was set up with the help of the PA, and provides work for women within the Protectorate but not outside it.
Chapter 7

Development and conservation: impacts

As we have seen, the past forty years have seen major changes in bedouin life in which planned development introduced by Israeli Occupation, internationally-led conservation and Egyptian rule have all played a part. This chapter investigates the long-term effects of directed development on livelihoods, and the resulting economic consequences for Bedu. Before 1967 life in South Sinai was virtually untouched by development processes: there were no roads or utilities, housing, education or healthcare. Almost everyone lived in a beit shahr (‘wool home’, or tent) and followed the mobile livelihoods I described in chapter 2. Post-1967 development required radical alteration of livelihood strategies due to growing dependence on paid work in an inflationary cash economy. Chapter 5 outlined how the Protectorate’s Bedouin Support Programme expanded development beyond its conservation brief, seeking to improve bedouin economic status; after 2002, however, services declined under Egyptian governance, leaving many Bedu disillusioned with Park and government.

In this chapter I show how the changes I have documented, anthropogenic and environmental, have shifted the balance towards paid work and away from agro-pastoral livelihoods. I denote these with the term ‘core livelihoods’, as they remain central to people’s view of what it means to live as Bedu, as I seek to show. Where possible, I contrast my data with information from the Israeli era and before. I demonstrate marked differences in how people make their living in and around the town of St Katherine (where conservation and development, and the authorities that govern them, are concentrated), and outside the urbanized area in smaller villages and remote settlements in wadis. I then examine resulting changes in household economics, both household effects and food consumption, identifying historical patterns where possible. I demonstrate that despite (and sometimes because of) ‘development’ a significant number of Bedu live at or below standard poverty levels unacknowledged by the state; and that this can be related to patterns of livelihood and geography. People’s perceptions of their development or underdevelopment, and the implications for their relations with the state that provides it, are examined in Chapter 8.

In what follows I focus on presenting spatial patterns in my own data, but contextualize them with historical information where it permits comparison. The areas I refer to are those shown in Maps 3 and 4 and described in Chapter 3. In the main I describe differences inside and outside the urbanized area of St Katherine. Although there are a few Awlaad Sa3iid in St Katherine, and a few Jebeliya outside, overwhelmingly the residents of my ‘Inside St Katherine’ area are Jebeli. The inside/outside pattern therefore corresponds to the tribal distinction between Jebeliya and other tribes. This was confirmed by the multivariate analysis I used to detect patterns of association in my data (described in Chapter 3; see
Appendix 4); the axes of correlated variables produced were broadly the same whether analyzed by geography or tribe, permitting me to treat them as equivalents.

7.1 Core livelihoods

Flocks

Assessing changes following sedentarization in the 1970s, Perevolotsky et al (1989) noted a reduction of the average flock from around 80 to just 13. It has diminished further since. Despite this decline the enthusiasm of many Bedu for their livestock is undiminished today. ‘Herding is the Bedu’s whole life,’ a Mzeina Sheikh told me. A Tarabin man confirmed: ‘Bidoun halal, bedu mish bedu!’ (Without their livestock, Bedu are not Bedu!).

These statements tell an important truth as I shall explore in Chapter 8; but the reality for many is that herding has been reduced to a pastime: ‘It gives me something to do,’ said one elderly Jebeliya woman. Paid work, not herding, is now the pre-requisite for survival in a cash economy with steeply rising prices. Nonetheless, the great majority of Bedu have kept at least some livestock; and there are discernible differences between people’s livelihood strategies and practice, inside and outside Katriin.

![Fig 7.1: Flock ownership, inside and outside St Katherine](image)

People living in St Katherine today are less likely to have stopped keeping livestock than those outside (Fig 7.1: $\chi^2=3.0; \text{df}=1; p=0.08$); however, the number of animals they keep is significantly smaller (Fig 7.2: $H=5.3, \text{df}=1, p<0.05$). The difference in flock size is readily accounted for by the pressure on grazing caused by settlement: in St Katherine, significantly

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149 Interviewee 80, 08/08/08; and 75, 11/05/08.
150 Interviewee 5, 09/05/07
higher numbers have to keep their animals permanently confined due to poor pasturage (Fig 7.3: \( \chi^2 = 4.5; \) df=1; \( p=0.03 \)).

**Fig. 7.2: Number of livestock kept, inside and outside St Katherine**

**Fig 7.3: Grazing practice inside and outside St Katherine.**

People in town are much more likely to confine their animals all year round (Fig 7.3); outside, there is more space and less competition for pasture. The four Jebeliya in my sample who keep a flock of more than ten animals all live at the outside edge of the town, with unrestricted grazing. My interviewees attribute the poor quality of grazing overwhelmingly to lack of rainfall, reporting that ongoing lack of rain has so depleted vegetation that across both groups, including remoter wadis, 65% of respondents (39/60) have to buy in fodder (fresh alfalfa (barseem), silage (driis) or straw (tibri)) all year round.
(Fig 7.4), with no significant difference between locations ($\chi^2=0.65$, df=2). The dearth of grazing at lower elevations, and the extra expense of buying in feed, probably accounts for the greater numbers outside Katriin who have abandoned their flocks (Fig 7.1). However, the better-off and those with adequate pasture can maintain more livestock in the wadis than in the town.

![Graph showing frequencies of fodder bought in never, seasonally or always (all data)](image)

**Fig 7.4: Frequencies of fodder bought in never, seasonally or always (all data)**

Perevolotsky’s (1989) data and mine illustrate dramatically the joint impacts of sedentarization and drought on flock size for the same group of St Katherine families over time (Fig.7.5). An unpublished dataset provides a useful recent comparison.

![Graph showing mean flock sizes in a group of St Katherine families, 1960s - 2000s](image)

**Fig 7.5: Mean flock sizes in a group of St Katherine families, 1960s - 2000s. Source: pre-67 & Israeli data, Perevolotsky et al (1989), n=24; 2002, Zalat & Gilbert (unpublished data), n=20; 2007, my data, n=33.**
Fig 7.5 shows that over 40 years flock sizes in and around St Katherine have declined by 95%. 80% of the drop took place within a decade of Occupation. From a size sufficient to ‘contribute significantly to the family economy’ in the 60s, sedentarization reduced flocks of goats among the 24 families Perevolotsky and his colleagues investigated from a mean of 78 - his interviewees’ estimate of their 60s livestock - to 13.\(^{151}\) Since then, the decline has been less dramatic but remains significant. Zalat & Gilbert collected data from a comparable sample of 20 families in the early 2000s: their mean flock size had dropped by half, to 6.6. By 2007 it had dropped little more in my longitudinal sample, to 6.1: a significant decline since the 70s (Table 7.1: t=3.80, df=42, p<0.001), but not within the decade. The ability to feed animals on domestic scraps and buy in fodder appears to be stabilizing the size of smaller, largely confined flocks in the village.

**Table 7.1: Flock size comparisons, spatial and temporal**

<table>
<thead>
<tr>
<th>Flock owners excluding sheikhs(^{1})</th>
<th>Sample size</th>
<th>Goats</th>
<th>Sheep</th>
<th>Whole flock</th>
<th>Mean goats</th>
<th>Mean sheep</th>
<th>Mean total flock size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2007-2008</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St K</td>
<td>38</td>
<td>157</td>
<td>82</td>
<td>232</td>
<td>4.1</td>
<td>2.1</td>
<td>6.1</td>
</tr>
<tr>
<td>Outside St K</td>
<td>40</td>
<td>228</td>
<td>162</td>
<td>390</td>
<td>5.7</td>
<td>4</td>
<td>9.75</td>
</tr>
<tr>
<td>Total area</td>
<td>78</td>
<td>385</td>
<td>264</td>
<td>649</td>
<td>5.3</td>
<td>3.4</td>
<td>8.3</td>
</tr>
<tr>
<td><strong>Longitudinal sample</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70s data</td>
<td>24</td>
<td>310</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>13.0</td>
</tr>
<tr>
<td>00s</td>
<td>33</td>
<td>155</td>
<td>61</td>
<td>216</td>
<td>4.7</td>
<td>1.8</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Sources: 70s: Perevolotsky et al (1989); 00s: my data.
1: Sheikhs were excluded from my overall calculations for two reasons: 1) because there were none in the original dataset, so their larger herd sizes would have raised the means; and 2) because the wealthiest three (2 in StK, 1 out), gave me evasive answers about their flock size such as: ‘Lots!’ Mean total flock size of the other four (1 in, 3 out) was 29, three times the ‘outside’ mean and five times the St K mean, but not approaching the 100-200 described by my interviewees as belonging to ‘big men’ in former times (when such numbers, however, represented only about double the mean flock size, not the huge disparity they would entail today.)

Spatially, there is a marked and significant difference between mean flock size today in and around St Katherine and in the wadis (Table 7.1: t=3.23, df=76, p<0.01). Interestingly, however, the contrast is less marked between this ‘outside St K’ mean of 9.75 and Perevolotsky’s 70s mean of 13 (t=1.11, df=22, ns). This suggests that the major stimulus of flock reduction was grazing pressure caused by the first wave of sedentarization. People

\(^{151}\) Perevolotsky gauges annual return from a typical 60s flock at 30LE, then 4-5 months’ subsistence for a family of 6 (1989: 161). He ensured flock & price estimates were reliable by repeating his questions using different researchers and triangulating the results with reliable local informants. His mean is corroborated by Shimshony et al (1981), who estimate flock size at 12 in the mid-70s.
outside settlements who have retained a flock have been able to keep over 50% more animals due to better grazing. As Fig 7.1 shows, 80% of my interviewees’ households across the area have retained a flock, rising to 90% in St Katherine. A Gararsha man told me: ‘If Bedu have no livestock they get depressed’; and a Jebeliya woman commented: ‘It’s not like the old days, but I like them - they give me something to do.’ This indicates both the symbolic and strategic importance of livestock, since for two-thirds of herders keeping animals now involves the sacrifice of paying for fodder (Fig 7.4). Retaining some animals and supplementing their feed - even at the family’s expense (see below) - appears to be preferred by Bedu to giving them up completely.

Fig 7.6  
Annual rainfall data for the years 1970-2010, as collated by SKPA. No data exist for 1995-2001 and 2004. The arrows indicate years of floods. (Source: Gilbert et al 2010)

The Bedu themselves unequivocally attribute recent husbandry changes to declining rainfall, and Fig 7.6 shows why: replies to my questions about grazing practice were so standardized that I reduced them to shorthand: ‘no rain - no plants.’ There was little or no rain in the years of my interviews (2007-08: Fig 7.6). Memories of better conditions are not mere romanticizing. Desert rain falls patchily and unpredictably, but cyclical peaks mean that some people will always be able to recollect times of rain: Rwala Bedu also recall better conditions, fuelling what the Lancasters (1990: 182) call a ‘Myth of the Golden Past’. They comment: ‘This does not mean any less rain is actually falling nowadays; rather the Bedu...do not see the evidence of the rain as they no longer follow the rains in pursuit of grazing.’ The same is so in Sinai. In the past, as with the Rwala, dry years were dealt with by moving flocks to where rain had fallen: customary law permitted reciprocal use of other tribes’ pasture (Perevolotsky 1987; Aziz 2000:34), and dispersed, mobile populations had limited impacts on both groundwater and vegetation. Now, however, population density in

152 Interviews 63: 08/08/08 & 18/17/05/07
Katriin itself has resulted in over-abstraction and pollution of groundwater, with recent rainfall inadequate to replenish aquifers and stimulate plant growth. We do not know whether more rain fell on South Sinai in the past, but we do know it has not met the needs created by urbanization for at least a decade: the town now relies on water brought in by tanker (see Table 7.7 below), and several people told me their wells had finally dried up or turned salty. Furthermore, even in the wadis, lack of natural grazing now means fodder must be bought, an expense rarely required prior to 1970 (Perevolotsky et al 1989), and which today’s herders would gladly avoid if they could. The fact that natural grazing alone formerly sustained much larger flocks throughout the region suggests that rainfall may possibly have been better in the past. Whether or not this is so, once settled, most herders today experience de facto drought, as my interviewees continually stressed.

The economic consequences of declining flock size are apparent in the reduced returns to households from their animals. Table 7.2 shows the decline in value of an average flock between the 60s and 70s, before and after the integration of Sinai into the Israeli economy, and its relationship to family subsistence.

**Table 7.2: Economic value of Bedouin herd vs cost of living, pre & post 1967.**

<table>
<thead>
<tr>
<th></th>
<th>Egyptian rule 1965-67</th>
<th>1960s $</th>
<th>Israeli rule 1977-79</th>
<th>1970s $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Av herd size</td>
<td>78</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LE $</td>
<td>IL $</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total income from herd</td>
<td>31.5</td>
<td>90</td>
<td>1325</td>
<td>80</td>
</tr>
<tr>
<td>Animal feeding expenses</td>
<td>0.0</td>
<td></td>
<td>1540</td>
<td></td>
</tr>
<tr>
<td>Net income</td>
<td>31.5</td>
<td>90</td>
<td>(215)</td>
<td></td>
</tr>
<tr>
<td>Av annual subsistence costs (family of 6)</td>
<td>90.0</td>
<td>260</td>
<td>24000</td>
<td>960</td>
</tr>
<tr>
<td>Cost of 1979 subsistence expressed in 1965 $ (x2.8)</td>
<td>260</td>
<td></td>
<td>2688</td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from Perevolotsky et al 1989: 161)

Before 1967, herds provided important nutrition for families, and sale proceeds covered 4-5 months subsistence costs (Perevolotsky et al 1989: 161). In the 1970s they continued to provide meat, milk and wool even though they generated no income. Table 7.2 demonstrates that the real cost of living measured in adjusted US dollars rose by up to ten times during the Israeli Occupation. During the same period, falling herd size and the need
to buy in fodder reduced net income from an average flock from about one-third of a family's annual subsistence requirements, to being a net drain on the family's resources.

By 2007 only half (53%: 20/38) of Katriin herders reported obtaining any produce at all: minimal milk, meat and wool. Many complained of the cost of fodder, some forced to choose between feeding themselves or their animals. Only one Jebeliya woman obtained anything to sell (woven wool bags). Outside Katriin, 58% of herders obtained produce (25/43); all was used at home, with none reported as sold. In tourist locations people reported scavenging hotel rubbish dumps to feed their animals and even their families. 'If you have ten people to feed and twenty goats, what can you do?' one Tarabin woman asked.

Gardens

![Garden ownership inside and outside St Katherine](chart)

**Fig 7.7: Garden ownership inside and outside St Katherine.** Numbers of people in and outside St Katherine with (a) no garden; (b) a garden next to their house or within a few minutes' walk; or (c) a high mountain garden involving a climb of at least an hour. (Many in the high western wadis take several hours to reach from any settlement.)

---

153 This cannot be true of 'big men' with substantial flocks. The sheikhs - 3/7 of whom I interviewed in public places - sidestepped economic questions, keen not to highlight their wealth in front of others.

154 Interview 77, 11/05/08.
Fig 7.8: Non-cultivation vs active cultivation of gardens inside and outside St Katherine.

In the 1970s Avi Perevolotsky counted 440 orchards in the high mountain area around St Katherine. 231 of them were owned by Jebeliya from the immediate area, some 75% of whom had at least one garden (1981:347). People in Katriin nowadays are more likely than others to be without a garden (Fig 7.7), and for those who have one it is more likely to be too far away to cultivate – usually in the high mountains. More village residents than others have stopped cultivating their gardens, citing lack of water and distance as the main obstacles\textsuperscript{155}. Of those who have kept their gardens, whether inside or outside Katriin, there is no significant variation in the numbers who actively cultivate (Fig 7.8: $\chi^2 = 1.98$; df=1; p=0.16).

Aside from the Bedu’s linking their identity to their flocks, and the impact of low rainfall, there are practical reasons why gardening is less actively pursued today than herding. First, if animals are not cared for they die, ensuring families prioritize their goats if time is short (an orchard may produce something even if neglected). Secondly, gardening is a man’s task; women can maintain a few goats, but if the breadwinner is working away, gardens - especially distant ones - will not be tended. Thirdly, gardens are less worthwhile economically: to have animals to slaughter for feasts or guests is a real saving for poorer households, whereas home-grown fruit provides occasional treats but neither savings nor income. The effort and cost of keeping an orchard productive during a drought (digging or deepening wells as well as tree maintenance) includes the ‘opportunity cost’ of lost wages, a problem for men in casual or self-employment (see Fig 7.9 and Table 7.4 below). Few gardens today produce enough to justify this investment. Across the whole area around half

\textsuperscript{155} Many gardens are several hours’ trek distant, accessible only on foot or camel. During seasonal migration this was not a problem, but to combine it with paid work commitments is challenging.
of those with orchards (or palms at lower elevations) reported obtaining any produce at all (51%: 37/73), with no variation between places. Only four people in Katriin produced surplus to sell, falling to two outside: a far cry from the pre-Israeli period when, according to Perevolotsky (1981:351) an average garden could keep a bedouin family well-provided for at least six months, and even in the 70s provided one month’s subsistence.\footnote{Perevolotsky (1981) painstakingly detailed the fruit yields of young, medium, mature and old trees of several species (and varieties of species) from the gardens of orchard owners in the longitudinal sample, comparing their market values in 60s LE and 70s IL with average household living costs for same group over the period.}

The high mountain gardens have unique cultural importance in South Sinai bedouin life; associated with byzantine monasticism, some may have been cultivated for 1400 years (Hobbs 1995; Zalat & Gilbert 2008). Many people who have given them up express regret for the peace and green space they offered; 40% of owners who no longer cultivate still consider their garden important. Nonetheless, whereas in the 70s’ named sample 26% had stopped cultivating their gardens, by 2007 lack of water and competition with paid work meant 50% had done so (\(\chi^2 = 3.95; 1 \text{ df}; p<0.05\)). A young Jebeli neatly summarized the downward trajectory of core bedouin livelihoods: ‘There’s no rain now, so there’s no grazing. Also, our traditions are changing: there’s no more seasonal migration. And you need money from paid work to buy all the stuff you need.’\footnote{Interviewee 32, 10/07/07}

### 7.2 Paid work and occupations

#### Historical comparison

<table>
<thead>
<tr>
<th>Work/occupation</th>
<th>in 1974 US$ per month</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\text{pre-Israeli}^1)</td>
</tr>
<tr>
<td>Unskilled manual*</td>
<td>no data</td>
</tr>
<tr>
<td>Supervisor</td>
<td>0</td>
</tr>
<tr>
<td>Skilled construction</td>
<td>0</td>
</tr>
<tr>
<td>Teacher**</td>
<td>0</td>
</tr>
<tr>
<td>Sheikh</td>
<td>0</td>
</tr>
<tr>
<td>Herding***</td>
<td>12</td>
</tr>
<tr>
<td>Orchard***</td>
<td>32</td>
</tr>
</tbody>
</table>

Notes to Table 7.3:

1. Perevolotsky 1981, 1989: given in LE per year; he provided the dollar equivalent; I converted these to 1974 US dollars by multiplying by 1.71 (see \(\text{www.MeasuringWorth.com}\)).
2. Glassner 1974: given in US dollars per day or per month; not converted.
4. my data; I converted my earnings estimates (Table 7.4) to 1974 US dollars by dividing by 3.8 (see \(\text{www.MeasuringWorth.com}\)).

* daily rate given by Glassner; converted assuming a 6-day working week

** maximum earnings. I have met only one Bedu who qualified as a teacher. He abandoned the job because he could not support his family on a 2006 salary of 170 LE/$30/£15 per month.

*** Income from herds and orchards averaged over 12 months, based on Perevolotsky’s reported means.

Israeli commentators (Glassner 1974, Perevolotsky 1981) attributed the declining number of Bedu pursuing core livelihoods to the availability of freely-chosen, well-paid employment.
According to Glassner (1974: 50), in 1972 job openings ‘far outnumbered available men’. Almost half the workforce of 1200 Bedu was employed in oilfields, military or civilian construction, where the wages paid far exceeded the value of earnings today from equivalent work, as shown in Table 7.3. The rest were in occupations such as those listed by Marx (2003:5), including guiding pilgrims and tourists, fertilizing date-palms, making baskets and jewellery, in addition to herding, horticulture and smuggling. Not all these occupations have survived forty years of ‘development’; cheap palm baskets and furniture for tourists are now imported from mainland Egypt, pricing makers in Wadi Feiran out of the market. The one remaining Jebeliya jeweller now has no market for his decorative metalwork. In St Katherine, formerly important roles such as healer, herbalist and midwife are being replaced by trained personnel, who - in contrast with the Israeli period (Glassner 1974, Lavie 1990) - are almost never drawn from the bedouin community. The widespread perception amongst my interviewees that life offered better prospects for Bedu under Israeli Occupation owes something to the total lack of development before 1967; but it also bears some scrutiny. In 1996 Joseph Hobbs was told: ‘Twenty years ago every able-bodied man had a job. Now there is no work’ (1998:71). I look now at how people make a living notwithstanding, in and outside Katriin.

*Employment status and types of paid work*

![Employment status chart](image.png)

Fig 7.9: Employment status, inside and outside St Katherine.

Everyone in my sample – including those who have maintained a flock or orchard – has for at least three generations lived primarily on earnings from work. 84% (102/122) had at some point done paid work (the remainder being women). Fig 7.9 shows that of people
who had ever worked, 20 (20%) were currently not working; 47 (46%) were self-employed, while 35 (34%) were in employment.

Fig 7.10: Nature of work ever done, inside and outside St Katherine. There are significant differences between the two areas ($\chi^2=12.2$, df=6, $p=<0.05$).

Fig 7.10 shows categories of work done by group. Almost twice as many people from outside Katriin work for the government, despite the concentration of authorities in the town. (I will explore in Chapter 8 why this might be.) More Jebeliya work in tourism – guiding, owning or working in camps or cafes - due to the regular presence of groups climbing Jebel Musa (Mount Sinai). The spatial difference in skilled work is largely due to the two women’s handicraft projects in Katriin (see below). More people outside are in unskilled work, which includes growing narcotics. Fewer of those in Katriin have traditional occupations (breaking camels, working as a midwife, herbalist etc): better-paid jobs are available in town, and demand for modern alternatives is higher. Few people anywhere had secured industrial jobs on the Suez coast. Sheikhs undertake their tribal role in addition to the paid occupations which I include in Fig 7.10.

Twice the number of people outside Katriin have no work (Fig 7.9). This is largely explained by regular guiding opportunities in the town, which others regard with envy. However, reliance on tourism is a mixed blessing. Almost half my working sample are self-employed men working in tourism, for example collecting decorative stones for sale or as low-paid guides. Their economic security is precarious: tourism is volatile, and political and economic fluctuations can decimate their income (Sowers 2007; International Crisis Group 2007). One

158 cf official mean unemployment for South Sinai: 9.8% (UNDP 2005: 225)
159 Most of the seven tribal shuyukh I interviewed owned large flocks as well as running businesses, and were wealthy men. Other men are called ‘sheikh’ as an honorific. They have religious or cultural roles (such as poet) but are not tribal intermediaries.
Tarabin woman, reflecting on the absence of tourists following a security incident, commented: ‘There’s no work [now] because there are no tourists. Everything has got so expensive but no-one has any money because there’s no work.’

South Sinai bedouin women have virtually no paid work opportunities outside the home, as Aziz (2000) notes, changes in herding practice means their role is now largely a consumptive rather than a productive one. However, in Katriin several hundred women earn small sums doing piecework embroidery for sale to tourists through one of two handicraft projects. Fansina was set up by SKP’s Bedouin Support Programme, and now operates independently. A similar project is run by the Monastery. Though poorly rewarded, women usually control their earnings themselves. As the only source of paid work for bedouin women the impact of these initiatives has been substantial, and women outside the village clamour for similar projects.

*Illegal work, kosa and wasta*

Although numbers of self-employed people are almost the same, outside St Katherine the status encompasses a wider range of occupations. Outside tourist venues people have to find alternative jobs – including illegal ones. Smuggling, including drugs, is a well-documented bedouin occupation which has waxed or waned under different regimes (Lavie 1990, Hobbs 1998, Marx 1999, Bailey 2002). However, if smuggling is an underground activity, drug cultivation - *de facto* - is not. In Katriin itself, bristling with security to protect the tourists, cultivation is not an option (Hobbs 1998: 83), although some peripheral wadis are planted. Outside, however, the dearth of legitimate jobs has led in the past 20 years to widespread cultivation of marijuana and opium poppies, especially in inaccessible areas with available water. This is rarely admitted by individuals; yet several of my interviewees either hinted at or openly admitted involvement for want of safer work. One man in a remote wadi explained: ‘There’s no work here. Even if you have education - a degree even - there’s no work to be had. People are exhausted by it - they can find no way out but to grow drugs...If you’ve got five people in your house you need 1000 LE [per year] each. 1 kg of drugs will bring you 30 LE. A crop can bring you 2000 LE in 3-4 months. But no-one wants to grow drugs.’

The industrial complexes abutting the Gulf of Suez, including petroleum, manganese, mining and quarrying, formerly provided many jobs (Glassner 1974; Bailey 2002), but few Bedu

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160 Interviewee 77, 11/05/08
161 cf official mean female unemployment, South Sinai: 28% (UNDP 2005: 225)
162 Interviewee 107, 23/08/08
work there today. The deterrent, I was told,\textsuperscript{163} is \textit{kosa} (corruption; the Arabic means 'courgettes' – something that grows rampantly and gets out of control). Secure, skilled jobs can allegedly be obtained only by those who can pass substantial sums 'under the table' (8 - 10,000 LE was quoted to me as the 'going rate'). Alternatively, a man needs \textit{wasta}: connections, an 'old boy network.' An Awlaad Sa3iid man related: 'If there are any job opportunities Egyptians bring their families to fill them and the Bedu go to the wall.'\textsuperscript{164} Otherwise, only menial work at meagre daily rates (20 LE/ £1.75 per day) is open to Bedu. On top of this, providing backhanders at checkpoints - a grudgingly-accepted norm - is a deterrent to travelling to work: two respondents claimed to have abandoned their jobs because of it.\textsuperscript{165}

\textit{Earnings}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure7.11.png}
\caption{Estimated mean weekly earnings, working men inside \& outside St Katherine. \textit{\(n=73\)}}
\end{figure}

Fig 7.11 contrasts average earnings for men in work today, arrived at as described in the notes to Table 7.4 below. Mean estimated earnings for men in Katriin are 23.8% more than those outside, a difference that is close to significance (KW=2.7, df=1, p=0.052, 1-tailed). This is partly due to more regular work in the village: double my sample in Katriin were in regular work - 52\% (16/31) compared to 26\% (11/42) outside ($\chi^2$=4.95, df=1, p<0.05).

\textsuperscript{163} Three independent conversations, not interviews.
\textsuperscript{164} Interview 107: 23/08/08
\textsuperscript{165} Interviewees 99 \& 100, 20/08/08; and personal observation
Fig 7.12 Comparison of weekly earnings, all men, inside & outside Katriin

However, an interesting pattern emerges from Fig 7.12. There are almost no men in Katriin who lack work. The work available is generally low-paid - below the wage of 300 LE pw that, as I show in the next section, translates to a per capita income of US $1 per day for an average household. Outside St Katherine, men are far more likely to have no work at all. However, a greater proportion of those in work earn at higher levels. It is likely that some of these, at least, are working in narcotics. This is an option of last resort (and far less lucrative than generally assumed); but the fact that there are nine times more unwaged men in my sample outside Katriin166 (Fig 7.12) goes some way to explaining why people take it.

166 Along with the exclusion of Bedu from the wider job market, as noted above.
### Table 7.4 South Sinai Bedouin occupations (my data) and estimated earnings 2009

<table>
<thead>
<tr>
<th>Category</th>
<th>Work type</th>
<th>Status</th>
<th>Type</th>
<th>Earnings per day</th>
<th>Best earnings / month</th>
<th>Estimated weekly earnings</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never worked</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government/ public</td>
<td>SKPA</td>
<td>Employed</td>
<td>Regular</td>
<td>1400</td>
<td>350</td>
<td></td>
<td>salary/ small pension</td>
</tr>
<tr>
<td></td>
<td>City Council</td>
<td>Employed</td>
<td>Regular</td>
<td>700</td>
<td>175</td>
<td></td>
<td>&quot;</td>
</tr>
<tr>
<td></td>
<td>Project</td>
<td>Employed</td>
<td>Regular</td>
<td>880</td>
<td>220</td>
<td></td>
<td>&quot;</td>
</tr>
<tr>
<td>Tourism</td>
<td>Guiding (no camel)</td>
<td>Self-empl</td>
<td>Casual</td>
<td>1800</td>
<td>275</td>
<td>8 months' work pa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guiding (+- camel)</td>
<td>Self-empl</td>
<td>Casual</td>
<td>3000</td>
<td>450</td>
<td>8 months' work pa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Camp owner</td>
<td>Self-empl</td>
<td>Regular</td>
<td>15000</td>
<td>2600</td>
<td>9 months takings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Café</td>
<td>Self-empl</td>
<td>Regular</td>
<td>6000</td>
<td>1050</td>
<td>9 months takings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safari guide for</td>
<td>Employed</td>
<td>Regular</td>
<td>4000</td>
<td>1000</td>
<td>8 months' work pa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>foreign company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selling stones</td>
<td>Self-empl</td>
<td>Casual</td>
<td>100</td>
<td>300</td>
<td>8 months' work pa</td>
<td>occasional/sporadic</td>
</tr>
<tr>
<td>Skilled</td>
<td>Mechanic</td>
<td>Self-empl</td>
<td>Casual</td>
<td>2000</td>
<td>300</td>
<td>8 months' work pa</td>
<td></td>
</tr>
<tr>
<td>trades/crafts</td>
<td>Carpenter</td>
<td>Self-empl</td>
<td>Casual</td>
<td>2000</td>
<td>300</td>
<td>8 months' work pa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Builder</td>
<td>Self-empl</td>
<td>Casual</td>
<td>85</td>
<td>2500</td>
<td>30 days/month for 8 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Handicrafts</td>
<td>Employed</td>
<td>Regular</td>
<td></td>
<td></td>
<td>50</td>
<td>women:max rate piecework</td>
</tr>
<tr>
<td>Unskilled work</td>
<td>Builder's labourer</td>
<td>Self-empl</td>
<td>Casual</td>
<td>50</td>
<td>1500</td>
<td>30 days/month for 8 months</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Driver</td>
<td>Self-empl</td>
<td>Casual</td>
<td></td>
<td></td>
<td>250</td>
<td>estimate-one-third of fare. Work sporadic</td>
</tr>
<tr>
<td></td>
<td>Fisherman</td>
<td>Self-empl</td>
<td>Casual</td>
<td>2500</td>
<td>425</td>
<td>3 months' seasonal downtime</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narcotics</td>
<td>Self-empl</td>
<td>Casual</td>
<td>6000</td>
<td>1000</td>
<td>Best-case scenario - see below</td>
<td></td>
</tr>
<tr>
<td>Tribal/</td>
<td>Monastery</td>
<td>Employed</td>
<td>Regular</td>
<td>500</td>
<td>125</td>
<td>plus baraka-alms worth more</td>
<td></td>
</tr>
<tr>
<td>traditional</td>
<td>Gadi/judge</td>
<td>Employed</td>
<td>Casual</td>
<td>5000</td>
<td>1250</td>
<td>paid case-by-case</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dy’ya/midwife</td>
<td>Self-empl</td>
<td>Casual</td>
<td>100</td>
<td>0</td>
<td>Gift on safe delivery</td>
<td></td>
</tr>
<tr>
<td>Private sector</td>
<td>Industrial/</td>
<td>Employed</td>
<td>Regular</td>
<td>1500</td>
<td>375</td>
<td>Menial 20LE per day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>extractive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheikhs</td>
<td>Regular</td>
<td></td>
<td></td>
<td>420</td>
<td>100</td>
<td>Government honorarium</td>
<td></td>
</tr>
</tbody>
</table>

Whilst an opium grower can in theory make 30-40KLE every six months (1500LE per week) in practice many crops are lost due to pests, weather or raids. There may be only one really good crop every two or three years. Marijuana growers should get 5000LE every 3 months (20Kpa/1000 pw) but the same applies. Even good earnings are offset by the insecurity and danger of the work.

Source: informal conversations with Jebeliya in Katriin and Gararsha & Awlaad Sa3lid, outside.
Bedouin earnings and poverty

Table 7.5: Poverty, South Sinai & Rural Upper Egypt, income per person per day (pp pd).

<table>
<thead>
<tr>
<th></th>
<th>Mean weekly earnings LE</th>
<th>Mean no in household</th>
<th>LE pp pd</th>
<th>$ pp pd 2008 value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999 Rural Upper Egypt</td>
<td>87.5</td>
<td>5</td>
<td>2.5</td>
<td>0.52*</td>
</tr>
<tr>
<td></td>
<td>$1=6.23 LE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 St Katherine</td>
<td>281</td>
<td>6.6</td>
<td>6</td>
<td>1.09</td>
</tr>
<tr>
<td></td>
<td>$1=5.5 LE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 Outside St Katherine</td>
<td>227</td>
<td>8.8</td>
<td>3.7</td>
<td>0.67</td>
</tr>
</tbody>
</table>

*Derived by multiplying the 1999 $ value of 40 cents by its purchasing power in 2008 = $1.29 (www.MeasuringWorth.com)
(Source: Rural Upper Egypt: World Bank (2004); South Sinai: my data)

As I shall show, more than half my working interviewees earn wages that are inadequate to keep them out of poverty: however, this goes unrecognized by official indicators. The World Bank (2004) Egypt Poverty Reduction Strategy does not present data for Bedu, South Sinai or even Frontier Governorates. However, it uses an Upper Egyptian family of five with an income of 4549 LE pa in 1999/2000 as a proxy for life 'on the poverty line' (2004:56). Their income was then equal to $0.40 per person per day (pp pd). Table 7.5 compares this with my data for mean households with mean earnings inside and outside St Katherine, estimating daily per capita income converted to 2008 US dollars. It shows that income of a typical casual worker in St Katherine today exceeds the absolute breadline, but hovers only just above the World Bank's standard indicator of extreme poverty, $1 pp pd. At this level households may be: 'chronically hungry, unable to access health care, lack the amenities of safe drinking water and sanitation and basic articles of clothing such as shoes' (Sachs 2005: 20). Especially where there is only one earner, living standards for the poorest families I visited could be described in just this way. Even using a generous estimate of 8 months' work per year, the household of a typical unskilled worker in the wadis has to survive on just 67 cents pp pd, well below this extreme poverty standard. Meanwhile, food price inflation in Sinai in the families I compared has risen by double the government’s

167 The five Frontier Governorates, including South Sinai, are vast marginal desert areas housing all Egypt’s traditional indigenous people. Together they account for just 1.4% of the population, so their data are often aggregated. (UNDP 2005:26).
168 My questions did not cover housing or sanitation, but in Zalat & Gilbert’s 2002 unpublished dataset, of 20 families interviewed in remote settings not one had sanitation.
calculated rate for Egypt: an average 46% (my data: see Table 7.8), compared to 23% across Egypt (Steavenson 2009), with other foodstuffs rising even faster, as I show below.

It is clear, then, that some Bedu live in poverty; but how many? There are no governorate-level data for South Sinai recording poverty in the UNDP’s Egypt Human Development Report (2005). However, it states (2005:47) that just 5.3% of the whole Frontier Governorates’ population is poor. My data suggest that, for South Sinai at least, this underestimates the problem by a factor of 10. Fig 7.13 shows that 53% of my interviewees work in job categories that typically pay 300 LE per week or less - barely enough to keep an average South Sinai household (mean 7.8 members, n=82) on US$1 pp pd. For the 48% of my working interviewees in Katriin, and the 74% outside who are self-employed or in casual work, low pay is aggravated by insecurity.

**Education: a way out of poverty?**

Education is the only aspect of development universally prized - increasingly for both sexes - as the route to a job and a better life. ‘*Life is improving*; a young Awlaad Sa3iid man commented.169 ‘*Before, we were ignorant. People didn’t study at all – we couldn’t mix with other people.*’170 However, the time, money and effort people invest in education bring them no obvious reward. There is no relationship in my sample between years of education

169 Son of interviewee 107, 23/08/08
170 Only three (of 122) individuals said that education was pointless when there were no jobs.
and earnings from work \((r=0.07, n=105, \text{n.s.})\). The higher numbers of skilled workers in Katriin reflect job opportunities, not educational status: several young male interviewees outside Katriin had secondary education but were still out of work. (Literacy hovers around 50% for people aged 20-45 both inside and outside Katriin, with the majority of those over 45 illiterate, there having been no schools in their childhood).

This might deter people from educating their children, but seems not to: the majority of people with school-age children now make arrangements, often involving real sacrifice, to ensure boys and girls go to school for an average of seven years. This commitment is hampered in remote areas by poor provision of schools. Over 40% of my respondents have no secondary school for their children, and 26% \((n=14)\) of those outside Katriin with families, collectively caring for 67 children, have not even a primary school.

‘Young people should learn everything’, a Jebeli sheikh told me. ‘To advance bedouin culture; to learn to be teachers so as to teach bedouin children; to learn to be doctors so as to help the Bedu; to learn to be lawyers so as to support the Bedu.’ 171 However, there are virtually no professional South Sinai Bedu today. The quality of education they receive, many interviewees remarked, does not allow them to compete for jobs or university places, or overcome the hostility of employers (Hobbs 1995; Hobbs, Grainger & Bastawisi 1998). Tables 7.4 and 7.5, locating half the working population around or below the poverty line, show how far the Sheikh’s aspiration falls short of achievement. This aspect of development - like so many others - seems to be failing the Bedu entirely.

### 7.3 Household economics and consumption

As Peters (1990: Ch 6) notes, it used to be hard at first sight to tell a rich Bedu from a poor one: similar clothing, and the limitation on material goods necessary for constant mobility, underpinned the presumed structural egalitarianism of bedouin society. Aziz (2000: 34) quotes a Mzeina sheikh: ‘In the past, the sources of wealth were accessible to everyone... the variations in what each individual owned were minimal. One man might have one camel, another might have two.’ Lavie (1990: Ch 8) and Abu Lughod (1990) also describe an absence of necessary connection between status and material wealth. However, for South Sinai Bedu today the gap between rich and poor is no longer masked by the simplicity of material culture. Some people can now buy modern commodities to make life more comfortable, while others cannot. As one Tarabin man put it: ‘Some people have enough for a car, while others cannot feed their families.’ 172 There are no longitudinal comparisons for

171 Interviewees 7, 07/05/07 and 57, 31/07/07. Both Jebeliya.
172 Interview 115: 23/08/08
consumer goods, as in the 70s people simply did not have them. However there are geographical differences illustrating significant variations between life in Katriin and outside. In general, the concentration of development and modern commodities in the town reinforces social polarization.

**Consumer durables and services**

In 82 of the households I visited, I ran a short survey of consumer goods and services, asking the head of the household what they owned from a given list (Appendix 2). Those shown in Table 7.6 below also feature in the Egypt Demographic & Health Survey 2005 (Zanaty & Way 2006), enabling me to contrast ownership or access to them in my households with comparable populations in the Frontier Governorates and the general population of Egypt. I have included South Sinai data from the UNDP’s Human Development Report 2005 where available.

**Table 7.6: Consumer items and services, South Sinai, Frontier Govts & Egypt**

<table>
<thead>
<tr>
<th>Household Effects</th>
<th>Egypt</th>
<th>Frontier Govs</th>
<th>my data</th>
<th>UNDP%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
<td>whole area%</td>
<td>StK%</td>
</tr>
<tr>
<td>Cooking stove</td>
<td>96.1</td>
<td>97.4</td>
<td>86.6</td>
<td>88.0</td>
</tr>
<tr>
<td>Solid fuel/open fire</td>
<td>0.3</td>
<td>0.2</td>
<td>15.8</td>
<td>11.1</td>
</tr>
<tr>
<td>Fridge</td>
<td>85.3</td>
<td>86.4</td>
<td>58.5</td>
<td>66.6</td>
</tr>
<tr>
<td>Radio</td>
<td>84.5</td>
<td>83.5</td>
<td>51.2</td>
<td>55.5</td>
</tr>
<tr>
<td>TV</td>
<td>94</td>
<td>91.2</td>
<td>67.0</td>
<td>88.0</td>
</tr>
<tr>
<td>Dish</td>
<td>13.9</td>
<td>22.6</td>
<td>59.7</td>
<td>80.0</td>
</tr>
<tr>
<td>Mobile</td>
<td>23.1</td>
<td>31.6</td>
<td>54.9</td>
<td>61.1</td>
</tr>
<tr>
<td>Car or truck</td>
<td>6.4</td>
<td>11.6</td>
<td>28.0</td>
<td>36.1</td>
</tr>
</tbody>
</table>

Water supply

<table>
<thead>
<tr>
<th></th>
<th>Egypt</th>
<th>Frontier Govs</th>
<th>my data</th>
<th>UNDP%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piped water</td>
<td>88.3</td>
<td>74.6</td>
<td>2.7</td>
<td>0</td>
</tr>
<tr>
<td>Own well</td>
<td>1.5</td>
<td>9.6</td>
<td>13.4</td>
<td>11.1</td>
</tr>
<tr>
<td>Tanker</td>
<td>2</td>
<td>9.8</td>
<td>76.8</td>
<td>86.1</td>
</tr>
<tr>
<td>Pack animal/on foot</td>
<td>n/a</td>
<td>n/a</td>
<td>7.3</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Electricity ¹

<table>
<thead>
<tr>
<th></th>
<th>Egypt</th>
<th>Frontier Govs</th>
<th>my data</th>
<th>UNDP%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliable supply</td>
<td>99.9</td>
<td>95.0</td>
<td>73.0</td>
<td>94.5</td>
</tr>
<tr>
<td>Patchy - 6 hr pd</td>
<td>n/a</td>
<td>n/a</td>
<td>19.5</td>
<td>5.5</td>
</tr>
<tr>
<td>None</td>
<td>0.1</td>
<td>5.0</td>
<td>12.2</td>
<td>0</td>
</tr>
</tbody>
</table>

¹ Zanaty & Way (2006:22) assume electricity is universal except in ‘a few Frontier Governorate households’.
Source: Egypt & FGs: Zanaty & Way (2006: 25); South Sinai: UNDP (2005); my data. In/outside StK: my data (n=36 [St K], n=46 [outside]).
Patterns of ownership in my data generally reflect the 24% earnings gap between locations in Sinai. In the wadis many people lack any of the listed goods. Almost every consumer item is owned by a higher proportion of people in Katriin than outside. Where electricity permits, fridges are a priority. Most people in Katriin cook using bottled gas, but Table 7.6 shows that outside almost 20% use open fires, a major health hazard for children (Zanaty & Way 2006:25). Investment in some goods reflects the landscape: mobiles are invaluable where populations are scattered and travel arduous. Mountains obliterate signal, so TV owners are obliged to buy a satellite dish as well. In all other cases but one my sample falls well short of levels of consumer goods enjoyed in mainland Egypt and the more comparable Frontier Governorates.

The striking exception is vehicles: long distances between essential services, absence of public transport, plus opportunities for transporting tourists, mean that in Katriin six times more people own a vehicle or a share of one, than in Egypt: 36% vs 6.4%. Even in the wadis 28% own or share a vehicle (a third of men in work). For many this is a huge investment, reflecting the high cost of living in an isolated mountain region. However, a vehicle is also a capital asset like the camels which it often replaces (see also Chatty 1980). In the past surplus funds were invested in livestock. In the town, at least, consumer goods are nowadays replacing livestock as status symbols (with access to modern media accelerating that trend: see Abu Lughod 1990). In the wadis, 44% of men (n=23) have a camel, and 12 own several (range: 2-20), while only 21% of households have or share a vehicle: an Awlaad Sa3iid man told me: ‘Animals are the most important thing for Bedu - more important than a car.’ In Katriin 46% (n=17) of men in my sample own or share a camel, though only 3 have more than one (range 2-3); but 36% of households in my sample own or share a car. Ownership patterns of vehicles as of other consumer goods confirms a trend for traditional practice to decline with urbanization.

Development indicators usually include water and electricity. Here the Egypt/Sinai gap is extreme, although not reflected in official figures. According to the UNDP (2005) 88% of South Sinai residents are supposed to have piped water (Table 7.6). In my sample just two respondents actually receive it (both live at the outskirts of the regional capital, el Tur); three times more Bedu transport their water by camel, donkey, or on foot than receive piped water. Similar inaccuracies afflict official estimates of food consumption (Fig 7.15). Inaccurate data ensure nothing changes. I examine the implications of this in Chapter 8.

173 My actual list was longer - see Appendix 2
174 One boiling July day in Katriin someone joked: ‘Why should we need a fridge? We live in a fridge!’
175 There are public hospitals, for example, only in Katriin and el Tur, some 250 km apart.
176 Interview 107: 23/08/08
Food consumption and expenditure

The polarization of bedouin society is further reflected in modern patterns of food consumption. Just as livelihoods show marked differences inside and outside St Katherine, so the food people buy or produce corresponds to relative wealth, urbanization and the practice of core livelihoods.

My household food survey was an addition to my main questionnaire, answered by heads of households, the vast majority of whom were men. In the introduction I listed things that ‘everyone buys regularly’, a list agreed with my field assistant as universal bedouin staples today: rice, flour, lentils, oil, sugar, tea. These products - those not produced locally, for which cash had to be found - form Perevolotsky’s (1981: 35) table of ‘Monthly living expenses’ for a typical family in the 1960s, when they were the only commodities bought.

I asked people to assess roughly how much they spent weekly on food, and to state which non-staple items they bought regularly, occasionally or never.

Table 7.7 Comparison of non-staple consumption, inside & outside Katriin

<table>
<thead>
<tr>
<th></th>
<th>St Katherine n=36</th>
<th>Outside St Katherine n=46</th>
<th>Regular</th>
<th>Occasional</th>
<th>Never</th>
<th>Regular</th>
<th>Occasional</th>
<th>Never</th>
<th>χ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Traditional items from flocks/ orchards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh produce</td>
<td>30</td>
<td>6</td>
<td>0</td>
<td>27</td>
<td>16</td>
<td>3</td>
<td>5.1</td>
<td>0.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh meat &amp; chicken</td>
<td>16</td>
<td>20</td>
<td>0</td>
<td>4</td>
<td>24</td>
<td>17</td>
<td>23.9</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk (powdered)</td>
<td>19</td>
<td>11</td>
<td>5</td>
<td>10</td>
<td>6</td>
<td>29</td>
<td>20.3</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>28</td>
<td>7</td>
<td>1</td>
<td>12</td>
<td>13</td>
<td>20</td>
<td>24.7</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter/samna (ghee)</td>
<td>8</td>
<td>4</td>
<td>23</td>
<td>5</td>
<td>5</td>
<td>35</td>
<td>2.1</td>
<td>0.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td>22</td>
<td>9</td>
<td>4</td>
<td>9</td>
<td>8</td>
<td>28</td>
<td>22.6</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juice</td>
<td>21</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>28</td>
<td>14.2</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jam</td>
<td>17</td>
<td>7</td>
<td>11</td>
<td>6</td>
<td>9</td>
<td>30</td>
<td>13.3</td>
<td>&lt;0.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Luxury foods</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee</td>
<td>20</td>
<td>10</td>
<td>6</td>
<td>26</td>
<td>6</td>
<td>13</td>
<td>3.4</td>
<td>0.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate</td>
<td>9</td>
<td>8</td>
<td>19</td>
<td>2</td>
<td>2</td>
<td>41</td>
<td>13.8</td>
<td>0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coca-cola</td>
<td>17</td>
<td>8</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>33</td>
<td>15.7</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other items</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin cream</td>
<td>14</td>
<td>2</td>
<td>19</td>
<td>1</td>
<td>5</td>
<td>39</td>
<td>18</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toothpaste</td>
<td>18</td>
<td>3</td>
<td>14</td>
<td>7</td>
<td>5</td>
<td>33</td>
<td>11.8</td>
<td>&lt;0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>19</td>
<td>10</td>
<td>6</td>
<td>11</td>
<td>3</td>
<td>31</td>
<td>21.9</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
Household total = 82. One or two values missing for some items.
Re: fresh produce, only vegetables are bought regularly - for most people everywhere fruit is an occasional treat.
Re: meat & chicken, regular = once per week, occasional =once per month for meat. Chicken is rarely bought by anyone.
χ² values test the hypothesis that the spread of people using the item is the same inside as outside Katriin; each test has 2 degrees of freedom.

Source: my data
Table 7.7 sets out the number of households, inside and outside Katriin, who buy this range of goods. Whilst most now buy additional products, people in poverty still buy only basic provisions. 11% (4/36) of households in Katriin, and 37% (17/46) of households outside, generally buy only staples unless work brings in extra cash. This is a significant difference ($\chi^2 = 7.1$, df=1, p<0.01), emphasizing the lack of work and low incomes in remoter areas.

A Tarabin man, head of a household of 6, commented: ‘If I have money I buy food. If not, just flour for flatbread and a half-kilo of lentils. If there’s anything left at the end of the month I might buy a kilo of meat.’

Table 7.7 groups items formerly provided by agro-pastoral livelihoods, and others. Two of the non-significant differences are interesting. The first shows that wherever they are, all but the poorest buy fresh produce. This means vegetables, as fruit is bought little, and is viewed as a treat rather than a foodstuff. People’s concern about poor-quality shop-bought vegetables is continually expressed, especially in Katriin. Another product showing little variation between areas, despite its expense, is coffee: an Awlaad Sa3iid man told me ‘Coffee is very important to give to guests,’ and most people ensure they have a few beans, just in case. Despite their lower incomes, the same proportion (56%) buys coffee outside as inside Katriin, possibly suggesting stronger adherence to customary hospitality.

All the products listed as ‘traditional’ in Table 7.7 were formally obtained from orchards and flocks in some form. Significantly more people buy them all regularly in Katriin than outside; while significantly more people in the wadis never buy them. This reflects earnings and availability on one hand, but possibly a residual economic role for herds and gardens as well. In each location about half the flocks and gardens remained productive, but productivity differed in degree: twice as many in Katriin complained that their animals provided nothing useable (18%: 7/38, vs wadis 9.3%: 4/43). Much less dairy produce is bought outside Katriin, probably because it is often home-produced. It seems, then, that in Katriin now most of the former products of herding and orchards are bought from local shops using earned income. Outside Katriin, the poor get the worst of both worlds, with no home-raised produce and little money to buy goods. However, better-off families in the wadis, with 70s-level herds, may still manage to balance core livelihoods and paid work, benefiting from each.

The cost of healthcare

Table 7.7 shows that luxury foods and personal care products are far more likely to be bought in the village, due to income and availability. However, the higher number of town-
dwellers buying medicine is due less to economics than to their much higher rates of self-reported illness. 52.5% (32/61) of my Jebeli interviewees in Katriin had been ill at least once in the past year and assessed themselves as generally unwell. Outside, fewer than half that percentage reported illness (21.3%: 13/61). This difference is highly significant ($\chi^2 = 12.7$, df=1, $p<0.001$), and I return to it in Chapter 8.

Avoiding ill health is a constant concern in a system with no insurance. For those able to obtain healthcare at all, costs can be crippling: finding the money for treatment, whether long-term drugs for chronic conditions or acute care with uncertain outcomes, is a major concern. Care in public hospitals is rudimentary and often unhygienic. Private hospitals may charge a kidney dialysis patient 1000 LE (£120-130) per week for drugs alone; surgery can cost 10,000 to 40,000 LE (£1700-£5000) or more (costs contextualized by the average earnings shown in Table 7.4). Doctors routinely prescribe imported western drugs - at western prices and labelled in English - when cheaper, generic alternatives labelled in Arabic are available.\(^{180}\) It is not surprising that in the wadis, where most people lack transport and cash, a majority do not use costly western medicine but treat themselves and their animals free of charge with medicinal herbs and fire. Almost equal numbers in the village and outside use herbs as their first recourse (44:46), but roughly twice as many in Katriin (37:20) rely on western medicine if herbs fail to work. In the wadis more than twice as many use traditional fire treatments (8:3) and reject western medicine. A mobile Mzeini woman typified attitudes outside: ‘If I’m sick I go to my neighbour,’ she told me. ‘She treats me with herbs and fire. I don’t use doctors - they’re expensive and useless.’\(^{181}\)

**Food expenditure**

Each head of household was asked to estimate how much he spent on food each week. I divided these estimates by the number of people in each household to obtain a mean per capita spend per week. The results, split between Katriin and outside, are shown in Fig 7.14.

There is no significant difference in per capita expenditure between the two groups, which may seem surprising in the light of the significantly different consumption patterns described above. It is accounted for by the aggregation of households at the low end of the spectrum. In a cash economy a minimum level of expenditure is needed to keep people alive whatever they might eat, and - as shown in Fig 7.15 below - 80% of my sample fall into CAPMAS’ (Government of Egypt Central Agency for Public Mobilization and Statistics) definition of poverty: 40 LE pp pw food expenditure. Fabiosa & Soliman (2008:2) point out that a relatively higher percentage of poor families’ income is spent on food; so although mean

\(^{180}\) Source: several interviews and conversations, personal experience and applications to the Community Foundation for help with medical costs.

\(^{181}\) Interview 79:14/08/08
earnings are 25% lower in the wadis, expenditure is the same as in the village because for
some it cannot get any lower. It simply consumes a higher percentage of their household
income.

![Weekly per capita food expenditure by household, Katriin and outside](image)

**Fig 7.14: Weekly per capita food expenditure by household, Katriin and outside**

Fig 7.15 compares these data with an official dataset for Egypt (CAPMAS 2006). By this
criterion extreme poverty is ten times higher among South Sinai Bedu, and overall poverty
approaches double that for Egypt as a whole.

![Relative poverty expressed in terms of weekly per capita food expenditure in LE, South Sinai Bedu vs Egypt](image)

**Fig 7.15: Relative poverty expressed in terms of weekly per capita food expenditure in LE, South Sinai Bedu vs Egypt.** *(Source: Egypt - Central Agency for Public Mobilization and Statistics (CAPMAS) 2006; South Sinai: my data)*

Fig 7.15 shows Bedu and Egyptians living in extreme poverty, defined by CAPMAS as
spending 20 LE per person per week or less on food; in poverty, defined as 30 LE; and in
near-poverty, 40 LE. Using these definitions my data show 36.5% of South Sinai Bedu as extremely poor, compared with 3.8% in Egypt. 80.5% of Bedu are by this standard either near-poor, poor or extremely poor compared with 44.4% of the Egyptian population. One result is that 12% of Egyptian children are estimated to be malnourished (Iskander 2005:18), against 40% of bedouin children in the Park (SKPMU 2003:26). CAPMAS figures were collected in 2004, mine in 2007-2008. The high inflation during this period (Steavenson 2008) exaggerates the disparity. ‘The man who has money eats with his mouth,’ an Awlaad Sa3iilid man told me. ‘Those without money can only eat with their eyes.’

This chapter has investigated the long-term effects of modernizing agendas on how Bedu make a living, and the economic consequences for their households. I conclude by demonstrating changes in weekly food consumption and purchasing habits in St Katherine from the 1960s to the present. Figures 7.16 and 7.17 below contrast ‘typical’ 1960s family consumption as listed by Perevolotsky (1981:351) with the known weekly purchasing habits and outlay of two Jebeliya families: two men from Perevolotsky’s sample, and their son and nephew from mine thirty years later.

Fig 7.16: Weekly aggregate purchasing & consumption patterns over time. 1960s values are as estimated by Perevolotsky’s informants. 1970s and 2000s values are means derived from the actual purchases of Perevolotsky’s two named 1970s families and their modern descendants interviewed by HG. Traditionally produced items are split into those bought by weight (eg fruit and vegetables) and by unit (eg yoghurt and eggs). (Source: 1960s & 1970s: Perevolotsky (1981; 1989); 2000s: my data. A detailed list of items purchased appears in Appendix 5)

182 Interview 105: 21/08/08
Fig 7.16 shows changes in both the quantity and type of foods bought - from staples alone in the 1960s when flocks and gardens provided the families’ subsistence; through the transition to buying fewer staples and some non-staple goods in the 70s, when sedentarization and absence on migrant labour reduced the viability of agro-pastoral livelihoods; to today’s much heavier reliance on bought products that were formerly home-produced.  

![Graph showing percentage of budget spent on staples, traditional produce, and other items over time.](image)

**Fig 7.17 Rising cost of traditional produce over time.** The graph shows the cost of different food categories as a percentage of families’ food budget. In the 1970s high inflation increased the cost of food across the board, reinforcing dependence on the paid work that supplanted agro-pastoral livelihoods during the Israeli era. In the late 2000s, differential inflation of basic foodstuffs disproportionately increased the relative cost of traditional produce (Source: 1960s & 1970s: Perevolotsky (1981; 1989); 2000s: my data. Details of items purchased and their costs appear in Appendix 5)

Fig 7.17 shows how in the 1960s, the only outlay for a typical family would be the staple commodities they could not produce themselves, their flock and orchard providing the rest. By the 70s, the two families were still producing most of their requirements, but spending relatively less on staples as their purchase of non-staple items increased. These purchases required a sudden increase in income: between 1975 and 1977, the cost of all food trebled as the Israeli economy inflated, reinforcing reliance on paid work. By the late 2000s, the situation had changed again. Expenditure on staples had dropped somewhat, and now represented only about two-thirds of the total. The remainder was accounted for by dairy,

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183 This includes cigarettes; some people still grow tobacco for their own consumption. Actual items purchased and their costs are detailed in Appendix 5.
garden and related produce which was formerly home-produced at no net cost. My fieldwork coincided with the 2007/2008 food crisis that provoked rioting in Egypt. Between one year and the next food prices rose dramatically: wheat doubled in price, and rice rose by 70% (Steavenson 2008). South Sinai followed this trend. However, although the families’ actual spending on staples rose by around half during the crisis, what they spent on traditional produce doubled. Fig 7.17 demonstrates that the loss of produce from flocks and gardens has become an increasing drain on households in Katriin: maintaining a customary diet including nutritious dairy produce and fresh vegetables requires an outlay rising recently at twice the rate of staples. Moreover, this is a zero-sum game. As my interviewees never tired of pointing out, wages have not risen in tandem with food prices. Figs 7.16 and 7.17 are based on the experience of families in Katriin, of modest means but both with men in regular work. For poorer households out in the wadis the rising cost of produce forces a choice between nutritionally important produce and more filling staple fats and starches. As shown in Table 7.7, they tend to opt for staples rather than more expensive, nutritious produce. It is reasonable to assume that these trends exacerbate the 40% incidence of child malnutrition noted in the Park (SKPMU 2003: 26) and may cause real hunger. As one Tarabinia put it starkly: ‘What sort of life is this? Everything costs so much, and we just don’t have the money.’ 184

Conclusion

In this chapter I have used evidence from my interviews and surveys, contextualized by informed local estimates and data from the past, to show that over forty years South Sinai Bedu have exchanged one kind of poverty for another. Agro-pastoral livelihoods required constant mobility and minimal material possessions. They provided simple food, and sometimes not enough of it: many people, especially in Katriin, told me life was harder in the past but they were happier: ‘We were hungry’ one Jebeliya woman told me, ‘but we were free’. An elderly man summed it up: ‘Then, everyone lived in wool homes. Camels and donkeys were the only form of transport. People’s gardens and flocks were the only form of work, and all people’s food came from them. Families lived all together in one large group - the grandfather was the head and controlled everything everyone did. Now everything is different. It was better before.’ 185

Since 1967 the development of St Katherine has shifted the balance between core livelihoods and paid work. Now, many people enjoy more goods and live in greater comfort with more services than before, especially in the village; but life remains insecure at multiple

184 Interview 76, 11/05/08
185 Interviews 14, 11/05/07, and 57: 31/07/07
levels. Cash is now the key determinant of subsistence, but the ability to earn it is unequally
distributed and also independent of educational status. People in Katriin have greater access
to work both secure and insecure. Outside, some achieve adequate earnings, albeit
sometimes illegally; but many have no prospect of work. In the past, at times of low
rainfall, herders had customary rights to share other tribes’ pasture (Perevolotsky 1987); but
people who live in places with no work today cannot simply move elsewhere to find it: there
is no customary law permitting - for example - an out-of-work Mzeini to move his family
onto Jebeliya land and start guiding. Sedentarization and drought have removed from
most people the subsistence safety-net formerly provided by flocks and gardens. The result
is that, as I have shown, most South Sinai Bedu live in poverty relative to the Egyptian
population, whether measured in earned income, material goods and services or food
consumption. Many live in absolute poverty measured by global standards. This is
unacknowledged by the state, leaving people feeling deprived and underdeveloped
compared with others. The distribution of these feelings is also unequal, and has important
consequences for Bedu-state relations to which I return in my final chapter.

186 Hobbs (1996: 12) cites a rare exception when an Awlaad Sa3iid sheikh sold his tribe’s guiding rights in their
territory to the Jebeliya, prompting an outcry.
May 2007: Katriin: Camp ‘Al Mokhayyam’

8.30 pm: al 3asha\textsuperscript{187} (nightfall prayer)

‘Allah-u akbar, allah-u akbar! La ilah illa Allah!’ (God is great, God is great! There is no god but God.) The tranquil cadence washes into the tourist camp at the edge of the town on a breeze from the west, but no-one in the camp registers its music. Tonight the communal tent where guests relax, eat and drink tea is a Tower of Babel. Travellers, attracted from across the globe by Katriin’s history and spirituality, sit on cushions in little groups, discussing their day and tomorrow’s plans. Five or six languages rise and fall above the crackling of the fire, the quiet chink of tea glasses. The bedouin guides who have brought them here from all over Sinai listen attentively, absorbing the language of their group, practising and improving their grasp. The best are proficient in English – the universal lingua franca; and many get by in German, Italian, French, Spanish and increasingly Russian. Some are specializing in the new trend – Slovenian. Few have more than a primary education. Most older men, many of whom also speak fluent Hebrew and sometimes Greek\textsuperscript{188}, will not have been to school at all. People always comment on their gifts. Young ‘Abdallah pokes the fire and smiles. He grew up with his grandmother out in the mountains – no cars, no lights, just sheep and camels: the best place to learn, he says. He went to school for just two years, but look! – between them, he and the others speak ten languages. ‘They’re not written on paper, they’re written in the head!’ Life is the best teacher, he says. Subba3 disagrees. He’s not Jebeli like ‘Abdallah, but Mzeini from the coast. Subba3 is too courteous to contrast his position directly with ‘Abdallah’s, but the facts speak for themselves. While ‘Abdallah does odd jobs around the camp and serves tourists, Subba3 - thanks in part to his Austrian wife - owns his own camp on the coast\textsuperscript{189}. Subba3 has bought a computer and is teaching both his children – a boy and a girl - to use it. They will go to university, he says confidently. ‘Abdallah, unrattled, makes more tea.

A group of Korean pilgrims sing their last hymn. The travellers retire early: they will climb Jebel Musa to watch the sun rise over waves of blue peaks, receding to the sea. The trek will get them – and their Jebeli guides - up at 2.00 am. They drift off in groups: ‘Buenas noches!’ ‘Schlaf gut!’ ‘A toute a l’heure!’ ‘Alleluia!’ and the guides reassemble round a great platter of rice with a rich tomato sauce and crisp fried chicken - a treat from the camp-owner in return for the business they have brought. But for the local guides and camp staff, relaxation is short-lived. The office has had an alert. A light is flashing halfway up the Mountain, and the camp is the nearest source of help. Some people seem to have lost their way; and now, before the moon is up, it will be pitch dark and dangerous away from the

\textsuperscript{187} Classically \textit{3isha}

\textsuperscript{188} From the Israeli period, and from working at the Greek Orthodox Monastery respectively

\textsuperscript{189} Jacobs (2009) provides an interesting analysis of such relationships.
track. Six of the young Jebeliya drop their dinner and run. Old 3awaad stays put; he knows he would slow the lads down. But he warms to his role of storyteller, recounting with relish to guides from other tribes the dramatic incidents they have dealt with: ill-equipped people with small children losing their way at night; an elderly professor, a mighty man, who broke his bones and had to come down by camel - no-one knew whether he or the camel suffered most! Worst of all, the poor souls who fell from a ledge and died of exposure last winter. In Dr John’s day the Mahmiya had a rescue team, but not any more – now it’s up to bedouin volunteers. The guides smoke soberly. It may be a very long night.

But after just an hour the local men are back. This was a false alarm – the people were climbers and well-equipped. Al hamdulillah! The circle in the big tent is enlarged and they rejoin it, relieved. A new platter of food is brought, the fire revived, more tea made. As everyone relaxes, someone finds a tabla, starting up a simple beat. Someone else provides a counter-rhythm. A voice rises; another answers, people clap. Someone starts tuning a simsimiya. Then the music gets underway in earnest: complex rhythms from the tabla, irregular clapping complementing the drumbeat. Silvery solos by the simsimiya player; some long songs joined in by everyone, emphasizing highlights with cries of ‘Asma3!’ (Listen!) and ‘Ah wallahi!’ (Yes, by God!). A poem fills a tuning break, listeners repeating the final word of each line for emphasis.

‘I rose and climbed a mountain dry, the green’ry there had still not shown’
- ‘not shown!’
‘So putting shoes to both my feet, I sought a spot where pasture’d grown’
-‘ah, grown, by God!’

Then a raunchy song about a bint sakrana (drunken girl), and while they sing two men unwrap their headcloths, tying them round their hips. Shimmying their shoulders they dance almost on the spot, weaving and twining arms and scarves in a masquerade of love, conflict, reconciliation. The music and dancing will last an hour more, till the moon is well up above Ras SafSafa. Then one by one, the men will wrap themselves in cloaks or blankets and lie down: cat-napping before rousing their guests in the small hours. A late flight from Sharm drones overhead and dies away. A dog barks in Wadi Shreij and falls quiet. The wind gets up, rustling the leaves in the eucalyptus trees behind the tent. Everyone sleeps. It is silent.

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190 Tabla and simsimiya are a small drum and a four-stringed, bouzouki-like instrument
191 I do not know the poem that I actually heard recited on the evening I describe. This one, quoted to illustrate the participative nature of bedouin poetry, was composed by Tu3ema Musa Dougouny, member of a prominent Jebeliya family who are well-known to me. It is recorded by Clinton Bailey (2002) as having been recited by the poet close to the Monastery in November 1978 – some thirty years before, but no more than two kilometres distant, from my setting.
August 2008: ‘Wadi Diib’

8.50 pm al 3asha: nightfall prayer

‘Allah-u akbar, Allah-u akbar! La ilah illa Allah!’ (God is great; God is great! There is no god but God.) The last call to prayer of the day fades and the distant microphone crackles off. Zahra comes outside unobtrusively into the maggad192 to retrieve the platter and scraps - rice and lamb left over by the men. With her brother Sa3iid are three local Gararsha men and a Jebeli friend on an errand. Zahra keeps her eyes lowered: the group feels tense. These men may have come for a pleasant social exchange, but their mood has darkened.

What’s the point of pretending to consult us? What makes the police think anyone will co-operate with them?’ asks Hussein angrily, ‘when they wreck pumps and wells that people need to feed their families? I know the police say they’re being used to grow drugs, but not down here by the roadside – people aren’t stupid!’ The police just go for what’s easiest to reach so they can say they’re doing something. What else do you expect?’ Sa3iid asks cynically. ‘They’re Egyptians! They can’t get up into the mountains where the stuff is really grown. If you want to protect a place you have to be able to get there!’

It’s haram though, growing drugs,193 ventures Farhan, a Jebeli from Katriin. He is passing through Wadi Diib on the way back from Tur, calling in to drop off a pack of medicine from the hospital for Hussein’s mother. ‘It’s no wonder there’s no rain. God knows men’s hearts and he knows these guys’ hearts aren’t white - the ones who make the money. And they know they’re in the wrong too – otherwise they wouldn’t refuse to spend their drug money on their wives and kids.’ A wave of impatience washes over the men. ‘Ya rajil! (Oh man!)’ shouts Saelim heatedly. Do you suppose anyone wants to grow drugs? Do you think people want to live watching their backs, not trusting their neighbours, never knowing when they’ll be caught? It’s like a game of cat and mouse: we plant it, they dig it up; we plant again, they destroy it again. It’s not as if we get much for the damned stuff anyway – 30 LE a kilo! We’d be better off growing herbs, if anyone would buy them. But no-one does; and we know we can sell the bango194. It’s all right for you, sitting in Katriin with all the tourists. Any fool can get work in Katriin. Here, there’s nothing – no tourists, no projects, nothing. How are people meant to feed their families?’ Mohammed picks up the theme. ‘What is there for us here?’ he demands. Who is helping us? Not the Egyptians, that’s for sure! Up high they’re turning a blind eye to all this – someone’s making money out of it. You remember Sheikh Saelim of the Mzeina, how he told the Government that he could stop

192 Public seating area used for guests, generally a male preserve.
193 Forbidden by Islam
194 Local term for cannabis. Opium - afyun- is the other main crop.
drugs being grown in South Sinai tomorrow if they would provide jobs for us like the Israelis did? They didn't want to know – too many people getting rake-offs at the top.’

‘Yes’ – agrees Hussein. If anyone is going to help us it will be foreigners. The Egyptians have broken too many promises. Look at that American programme to stop drug-growing: for every ten pounds they bring to help the Bedu, the Egyptians take nine. There’s no trust between us now.’ ‘And what about all the money from Europe?’ asks Mohammed. ‘Don’t talk to me about that!’ snorts Saelim. ‘Kosa! They only gave a million euros for the Bedu out of 233 million. And who got the money? Every Egyptian who applied got money! And the rest went to the sheikhs, the big men – and you want to know why? Because they could give backhanders to that little Egyptian project officer – that’s what I’ve heard. Now they’ve cleared off in their four-by-fours and built themselves big houses in the country. There are project directors earning 1500 euros a month, while people here can’t feed their children. If I sat here and talked for a year I couldn’t tell you how I feel about the Egyptians!’ he shouts angrily, thumping his tea glass onto the mat.

The group falls quiet. No-one speaks, but Saelim’s outburst has revived the resentments of the past three years: the excitement when they learned there was serious money to help the Bedu; the hope with which they all contributed to the fund for consultants to download their applications and write them in English; the waiting; the incredulity and rage when they learned that they had got nothing; last year’s riots, the road barricaded with burning tyres. The men muse in silence for a while, then Farhan gets to his feet. ‘I’d best be off,’ he says to Hussein. ‘Here’s your mum’s stuff. I’m afraid the 800 wasn’t enough – they’ve added a new prescription this time. I paid the odd 200 – don’t worry about it now, see me next week.’ 1000 LE per week for his mother’s kidney treatment drugs. Hussein thanks God for his steady job as a driver, his big family, his friends.

The group breaks up. Small packages change hands discreetly, concealed in handshakes. Farhan offers Mohammed a lift and goes out to his jeep, anticipating the view he is used to: ‘Jebel Ruumi’ in the moonlight, and a silver forest of palms. But he was forgetting: the streetlights reached Wadi Dib this year. Look what the Egyptians have done to the night’, he muses as Mohammed jumps in beside him. Say what you like about al yehud (the Israelis), they loved the stars and the quiet. Now there’s so much light at night you can’t navigate by the stars any more. The Egyptians don’t care about nature. ‘The jeep bumps over the rutted track. They won’t be content till they’ve paved every wadi with tiles so they can hear their shoes go click click.....’.

The palms are not silver but orange, and not a star is in sight.

195 Kosa literally means courgettes, but is used to signify corruption.
196 About £80 at current values
Chapter 8

Identity as resistance

For forty years, as we have seen, the development of St Katherine has taken place very much on the terms of its occupiers. The result is that St Katherine is a place of growing structural inequality between Bedu and those they refer to as ‘the Egyptians.’ In a hierarchy where wealth defines status most Bedu seem destined to remain at the bottom. Regardless of aspiration, what might be called a ‘wool ceiling’ is in place: Bedu do not compete on equal terms with mainland Egyptians. Within bedouin communities, development has favoured a few but failed the many. The resulting material and social polarization is an unwelcome innovation.

People respond to these predicaments in different ways. Some apply what Appadurai (2004: 81) calls ‘the paradox of patience in the face of emergency’, thanking God for their tribulations (‘al hamdulillah!’). Others respond with frustration bordering on rage. ‘There’s nothing for us here,’ a Mzeina woman shouted at me, ‘We used to have tourism, but now we’re not allowed to take safaris. We used to have gardens, but now they’re all ripped up. Everything we can do here has been made illegal. What are we supposed to do?’

I explore in this chapter the impacts of living with multiple inequalities, and some of the strategies people employ to validate themselves in a system that disdains or ignores them. Among the most important is adopting a self-appointed role as guardians of nature. This, I argue, arises from the competing environmental imaginaries at play in Katriin: the dominant vision of nature as resource underpins Egypt’s authoritarian modernizing project, pursued through development and conservation, in South Sinai. In contrast, I argue, Bedu are choosing to reformulate an environmental identity as a means of resistance to Egyptianization, and to the disrespect in which they perceive themselves, and the environment of which they feel part, to be held.

8.1: Development as control

The securitization of Sinai

‘Development and security have always been intertwined,’ writes Alan Fowler (2008: 112). ‘Security creates the predictable conditions required for investment to translate into economic growth.’ Following the withdrawal of Israel from Sinai in 1982, Egypt’s development of tourism along the Gulf of Aqaba combined economic goals with the national

197 Interview 79: 08/08/08
interest (Aziz 2000). The National Development Plan for Sinai\textsuperscript{198} - aimed at settling three million Egyptians in the peninsula by 2017 - was driven by security as well as economics, and can aptly be termed a ‘project’ as Thomas (1994: 105) defines it: ‘a socially transformative endeavour that is localized, politicized and partial, yet also engendered by longer historical developments and ways of narrating them.’ Egypt’s settlement of Sinai, as a neo-colonial project, was intended both to prevent history from repeating itself and to transform a marginal place of dubious loyalty into an orderly province, peopled with good Egyptian citizens. The International Crisis Group (ICG) (2007: 19) reports an enthusiastic account of the plan from the Egyptian press\textsuperscript{199}: ‘[The programme] could convert immense areas into something resembling colonies [or settlements - \textit{mustatawnat}]\textsuperscript{200} in the desert, which would form a barrier against terrorists and conspirators entering Egypt.’ However, Sinai’s residents experience the project as a second Occupation, the ICG’s respondents in the North explicitly using the same word - \textit{ihtilal} - applied to the Israelis in 1967.

The plan is far from being realized; the vast majority of South Sinai’s ‘settlers’ are short-term male migrant workers who leave their families safely at home in Wadi Nil. But if its social aspect is lagging, its security element thrives. The massive deployment of force in Sinai, especially following a series of terrorist incidents between 2004 and 2006\textsuperscript{201}, might be thought deterrence enough to conspirators. The limitation placed by the Camp David Agreement on national troop deployment has been compensated for by highly visible police (\textit{shurta}: black uniforms), tourist police (\textit{shurta as-siyahha}: white uniforms); border guards (\textit{haris al hudood}: military camouflage) and secret police (\textit{mukhabarat}, who are naturally invisible). It has been suggested to me that there is a policeman for every five residents; but at times of heightened security that ratio sometimes appears to be reversed.

Aziz (2000:31) points out that ‘roads are often extolled by governments as a symbol of modernity and also as a tool of control.’ She analyzes South Sinai as three distinct spaces; the Coast (associated with tourism); the Interior (associated with the Bedu); and the Road, from which the state regulates the others. Sinai Bedouin, she notes, associate the road with state control, a view neatly corroborated by a sheikh who told me ‘20\% of Sinai is Egyptian,’ referring to areas accessible from the road. ‘The other 80\% is free.’\textsuperscript{202} Control is exercised on the road at dozens of checkpoints\textsuperscript{203}; and from it in the destruction of illegal drug fields and legitimate gardens alike. It may be used to confine Bedu to the roadside by banning

\begin{footnotes}
\item[198] Based on Dames & Moore (1981).
\item[199] \textit{Al Wafd} 15th May 2006
\item[200] Tellingly, the word is the same as that used for Israeli settlements in the Occupied Territories.
\item[201] Taba, 07/10/2004; Sharm, 23/07/2005; Dahab 06/04/2006
\item[202] Sheikh, private conversation, March 2010.
\item[203] I have had ample opportunity to observe the differential application of these controls. Bedu are stopped and questioned insistently at every checkpoint; Egyptian drivers are often waved through. A professional Egyptian with whom I discussed the issue (01/08/2009) commented: ‘They only stop those they think are a problem.’ In South Sinai, every Bedu is treated as a potential problem.
\end{footnotes}
them from leading safaris into the desert, or by preventing their entry into gated tourist areas, as in Sharm (ICG 2007 and personal observation). Tourist security is the given reason for these bans, which do not apply to Egyptian tour operators. Many Bedu depend for their livelihoods on tourism (95% at the coast, according to Aziz); yet the corollary - that they are therefore less likely to plant bombs - does not convince the state.

The reason is the pervading suspicion of Bedu. North Sinai Bedu, with tribal links in Palestine, were implicated in the Taba bombing of 2004; the subsequent arrests, running into thousands and allegedly involving mistreatment of women and children, provoked human rights protests and community outrage (ICG 2007). The expected desire of Bedu to avenge this treatment by harming Egyptian commercial interests was then used as a rationale for arresting them, including men in the South, ‘on suspicion’ after later incidents. Press reports linking Bedu both to al Qa’eda and to ‘separatist sentiments’ leave their mark: a professional woman in Cairo warned me against working with Bedu, saying: ‘Everyone knows they are terrorists’. Sinai’s transnational environment transforms a dominant narrative of bedouin lawlessness into one of treachery, justifying a security presence that at times, to its residents, feels like a siege.

Conservation as control

Aziz (2000:31) lists the measures taken to implement the National Development Programme for Sinai, noting that: ‘The need to... oversee the development project required the full presence of a local authority. State representatives, such as a governor, head of the city council, policemen and providers of essential services such as teachers, doctors and nurses, arrived from the urban centres to take part in the development process.’ Aziz’ analysis aptly illustrates the way in which the apparatus of ‘development’, accepted by its practitioners as an unquestionable value outwith the domain of politics, can be instrumental in delivering mechanisms of control which may have highly political uses and outcomes. Ferguson’s (1994) analysis of development as an ‘anti-politics machine’ sheds light on conservation-as-development in Sinai.

Ferguson’s critique shows how development discourse generated a complex intervention in Lesotho founded almost entirely on false premises about its economy and about the priorities and practices of its rural residents. Its subsequent failure did not mean, however, that the project had no impact. It brought in its wake a raft of state bureaucracy similar to that described by Aziz in South Sinai. The road it provided facilitated the movement of soldiers and police to the local centre, enabling state surveillance of an area formerly identified as a hotbed of opposition to the government. This outcome was undreamed-of by

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204 Which, as the ICG point out, only report what they are authorized to say (2007:3)
those who designed and implemented the project, whose application of ‘apolitical’, technical interventions produced political results as an unintended byproduct.

Conservation-based development has arguably produced similar effects in Sinai. The gazetting of Protected Areas in strategic locations provides infrastructure for delivering not only conservation but control: of land and resources, of the citizens who may lay claim to them, and of surrounding states. PAs cover 40% of South Sinai alone, and almost the whole Gulf of Aqaba coastline. Each has its army or security presence and a ribbon of checkpoints. Military exercises can legally take place twice a year in Ras Mohammed PA; on one occasion mines were laid in the Park and the PA billed for their removal (Sowers 2007). In North Sinai’s PAs too, security bases can be found in remote locations; but the declaration of a PA of just 6 km² within a few kilometres of the Rafah crossing into Gaza encourages the view that security - if only in part - is ‘what conservation [in Egypt] is really about’ (Aronson 1980). As Brockington et al point out (2008: 45): ‘Parks...provide a green public enhancement to countries with a poor human rights record.’ The Government of Egypt, as we have seen, leads the regional field in declaring conservation areas, but trails behind in funding and supporting them. If one is looking for political intelligibility in this puzzle, the instrumental effects of conservation in camouflaging authoritarianism while facilitating control may provide at least part of the answer.

At a local level, St Katherine Protectorate is today seen by most Bedu as just another agent of arbitrary authority. The initial appointment of bedouin community guards to ‘police’ environmental compliance (an effective ‘divide and rule’ tactic however unwittingly deployed) was received with enthusiasm (Hobbs 1996). However, as experience taught that guards could be dismissed summarily on security grounds (Paleczny et al 2007) without explanation or redress, and that the alleged offender’s whole family could then be blacklisted, enthusiasm waned.205 One man so treated told me: ‘I used to have a good feeling about the Protectorate, but now I hate it. I’m never working for the Egyptians again.’ 206 The apparently arbitrary exercise of power causes immense ill-feeling. ‘The Egyptians’ were blamed for the wholesale cull of domestic poultry in 2005 due to an Avian Influenza outbreak hundreds of kilometres away, a national policy over which local officials in fact had no discretion 207. However, planning regulations are within their discretion: their strict application to Bedu, often entailing the destruction on environmental grounds of boundary walls or whole houses, causes particular resentment because it is unilateral: ‘the Egyptians’ erect coloured stucco apartments, strident signage and lighting, concrete bus shelters and

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205 107: 23/08/08
206 10: 11/05/07
207 Interviews 19: 24/05/07 & 38: 19/07/07
‘pharaonic’ public lavatories in a World Heritage Site with impunity. This differential approach by the authorities may seem arbitrary but is anything but.

**Development as Egyptianization (II)**

A ‘security-fixated conception of development’, the ICG (2007: 19) note, ‘is accompanied by the authorities’ declared wish to ‘Egyptianize’ the region, not only in economic and demographic terms, but also, symbolically, in cultural and identity terms.’ Aziz comments (2000: 30) that the national project to develop Sinai ‘never argued for the elimination of the Bedouin’. However, as we have seen, development has brought poverty and widespread decline in the core livelihoods that long constituted bedouin identity. One Tarabin man complained: ‘The government forces us to leave the mountains, settles us in houses like chickens and makes us pay taxes.’

Donor-funded projects collude in discouraging the remaining mobile Bedu: the World Food Programme’s project in central South Sinai, gives food assistance on condition of settlement, a principle recently extended by the SSRDP.

‘Bedouin culture’ excites no interest except as a tourist attraction (a museum is to be built for the tourists in Sharm, from which Bedu are effectively excluded; while a projected Heritage Centre in St Katherine remains unbuilt). The ICG notes (2007: 9) that: ‘Egyptian interest in Sinai is almost exclusively geostrategic and military; symptomatic is that...Bedouin culture was only recently included in Egyptian heritage conservation programs.’ The preferred strategy has been to subsume Bedu into mainstream pharaonic heritage in the interests of nation-building: as the ICG points out, history is not taught by bedouin teachers. As Arabs, the Bedu adopt an Islamic rather than a pharaonic cultural frame of reference. Despite this, despite World Heritage Status and PA rules, entirely incongruous *faux*-pharaonic buildings announce that St Katherine is now an Egyptian town. The daughter of my neighbours in the wadi can often be heard singing a song she learned at school: ‘Ana bedawiya, ana masriya.’ (I’m a bedouin girl, I’m Egyptian...’); but when I asked her older cousin if he thought of himself as Egyptian he snapped back: ‘*Never!*’ Most South Sinai Bedu reject passive assimilation into a culture they do not acknowledge as theirs.

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208 Interview 76: 11/05/08
209 People in the favoured site were not asked whether they wished to settle. They did not: picking up their tents they moved away, leaving the newly-built houses empty (resident, pers comm, May 2010)
210 The ICG (2007: 20) points out that Pharaoh is an antipathetic figure in Islam, linked to the *jahaliyya* - the pre-Islamic time of ignorance.

178
8.2 Inequality and its impacts

St Katherine today is a place of growing inequality, due both to the material polarization of its bedouin communities and to the inequality of opportunity they experience as a marginalized minority. Four decades of ‘development’ - whether economically-driven or cloaked in the rhetoric of ‘sustainability’ - has led, here as elsewhere, to people’s learning to see themselves as ‘underdeveloped’ (Sachs 1992). This is especially so in Katriin where urbanization is focussed. As Rahnema (1992: 159) comments: ‘Everyone may think of themselves as poor when the TV in the mud hut defines the necessities of life.’ This perception has accelerated as tourism has boomed and wealth has flowed in to Sinai’s economy, largely bypassing the Bedu. In the global economy of which Sinai is now part, a bedouin value system that fails to treat material wealth as the highest good is unintelligible. But bedouin poverty is not purely a construct of ‘development’. As I showed in Chapter 7 people have not only learned to feel poor; the erosion of core livelihoods means that many people now actually are poor, many not just relatively but absolutely. As we have seen (Table 7.4, Fig 7.13) whilst some Bedu have exploited opportunities arising from development, half the working population live around or below the World Bank’s poverty standard. The irony is that the systems designed to measure progress in ‘human development’ fail entirely to reflect that reality.

Structural inequality and its impacts

It is instructive to revisit the invisibility of Bedu in official development statistics: Egypt’s Human Development Report (UNDP 2005) speaks of ‘pro-poor policies’ but fails to mention Bedu or classify them among the policy’s intended beneficiaries. Public policy in Egypt appears geared to assimilating Bedu by ignoring their needs as a group. As I have noted, they are not separately censused so there is no formal record of their population. Their experience is not reflected in any of the literature on development I have examined; only conservation documents acknowledge their existence. This may be due to government resource constraints: South Sinai constitutes less than 0.1% of Egypt’s population, and all five Frontier Governorates account for only 1.4%. These dispersed populations are inaccessible to researchers. In addition, mobility, illiteracy and suspicion of authority combine to ensure fewer adult Bedu are registered citizens than in the population at large: it has been suggested to me that as few as one-third of adult Bedu outside urban centres
have identity documents. 211 As a result, they are unwittingly omitted from sampling frames for national surveys based on the population register.

Since indicators show more ‘progress’ without bedouin scores, this sampling problem is likely to remain unsolved. The result is that official statistics, and the secondary research they support, are often hopelessly inaccurate indicators of bedouin experience. I showed in Table 7.7 how HDIs show water being piped to 87.8% of South Sinai’s population, while just two of my interviewees actually receive it. Similarly, Fig 7.15 compares CAPMAS (HIECS 2005) survey data with mine for per capita expenditure on food, demonstrating that poverty among the Bedu is double that in Egypt as a whole. Drawing on this national dataset, Dawoud (2005), however, concludes that expenditure on food in South Sinai is substantially (25 -30%) higher even than in other Frontier Governorates, let alone the poorer parts of Upper Egypt. He explains (2005: 102) that: ‘In South Sinai [the consumer] consumes mainly meat, milk and its products, fish and eggs’; something that would come as news in the wadis. Unsurprisingly Dawoud does not mention Bedu: they are absent from his source. As with the phantom provision of piped water, Dawoud’s work is part of a pattern in which bedouin experience is erased from official records.

A similar effect is produced by the selective use of indicators by development agencies and donors as proxies for poverty. Rahnema (1992: 164) cites the World Health Organization’s use of doctors and hospitals per capita as indicators of poverty. In South Sinai these ratios are grossly skewed by the inclusion of international hospitals for tourists (which Bedu cannot afford to use). The resulting statistics show South Sinai as having the best healthcare provision outside wealthy districts of Cairo (UNDP 2005) - a grotesque distortion of my respondents’ experience. The following comments are typical:

‘When you go to the hospital you have to pay to get in. Then when you need a test, you have to pay before you get it. When Hassan was in agony after his accident, they wouldn’t put him in the ambulance until we went and got the money.’

This discrepancy between recorded and actual services directly affects the Bedu: public resources and development aid are allocated using data which exclude them. For example, according to Egypt’s HDIs (UNDP 2005) there is no maternal mortality in South Sinai; but fully 25% of my respondents in Katriin reported it in their own family. 213 The indicator masks an important problem, ensuring no action is taken to address it: indeed, an officer of a major aid agency told me that they do not work in Sinai because ‘the people aren’t poor

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211 Egyptian USAID project officer (pers comm 08/05/07).
212 Katriin resident, 10/03/10.
213 My figure is possibly exaggerated by double counting due to intermarriage between large families; but the true figure is certainly above zero.
People grow disaffected when their needs are unrecognized: an exhausted Mzeini man in a small settlement with no well or school told me: ‘There is nothing here. The Bedu need everything. When the EU money came we thought it was going to help, but the people got nothing.’ The EU-funded SSRDP provoked particular anger and frustration by promising help for Bedu but comprehensively disappointing the expectations it raised. When grants were announced in early 2007, people in Wadi Feiran were so angry to have received no meaningful help that in a rare act of practical resistance they barricaded the road with burning tyres.

Standard development indicators, then, fail to reflect bedouin needs; and as Apthorpe points out (1997: 25), are not conducive to measuring attainment of rights. Even if poverty is reduced, the structurally marginalized are no better able to make the human choices associated with development. This, I believe, is why so many people told me there were no development projects in their community, when I knew they existed; in one extreme example we sat outside a house provided by the World Food Program, while its householder told me: ‘No, there are no projects here - no-one is helping us.’ The problem is that the help provided is topical; but the needs, and the malaise they engender, are systemic.

How might the frustration of the marginalized express itself? I consider below some overt tactics, but I believe it possible that suppressed feelings may also find unconscious, physical expression through ill-health. It is a standing joke in Katriin that when Egyptians sit down together they talk about food, but when Bedu get together they complain about their health. I noted in Chapter 7 that there is a large and highly significant disparity in people buying medicine, and much higher rates of self-reported illness, in Katriin than outside it. More than half my Jebeli interviewees had been ill within the past year and assessed themselves as generally unwell. Outside, that dropped to one-fifth. I believe the work of Wilkinson & Pickett (2009), which demonstrates the social impacts of inequality, can illuminate this difference. Their thesis, that ‘more equal societies almost always do better’, is based on multiple research findings associating inequality in every part of the world with lower educational and economic attainment, higher crime rates, loss of social cohesion, and poor health. They cite a metanalysis of experimental research that associates higher stress levels with situations that include a social-evaluative threat: human beings, the authors conclude, ‘are driven to preserve their social self and are vigilant to threats that may jeopardize their social esteem or status’ (Dickerson & Kemeny 2004: 357). Wilkinson & Pickett note that frequent or prolonged stress affects the body, influencing many physiological symptoms including the immune system. ‘To be human’ they comment, ‘means

214 Conversation with CARE International worker, 29/05/07.
215 Interview 94: 16/08/08
216 Interview 114: 25/08/08
being highly sensitive about being regarded as inferior’ (2009: 40). They report violence as a common response to humiliation when people feel looked down on and disrespected; but in Sinai such responses are suppressed or internalized in the face of unchallengeable force.

Mental health problems are reported by Wilkinson & Pickett as more common in more unequal places.Attributing high value to money and possessions, and the need to impress others, both increase vulnerability to emotional distress and place people at greater risk of depression and anxiety. According to Wilkinson & Pickett, substance abuse and illegal drug use are also more common where society is polarized (2009: 70). In and around St Katherine these problems are rife, especially among young men. Two in Katrin singled out drugs as particularly problematic for their peer group. One said: ‘Lots of people suffer from addiction. They need hospital treatment but there’s nothing for them. People have psychological problems and there should be a hospital for that, too, but there is no help.’

Chronic continuing stress not only suppresses immunity, leading to illness: chronic stress, Wilkinson & Pickett explain, ‘wears us down and wears us out’ (2009: 87). 21% of my sample (26 people) describe themselves specifically as ta3baen: worn out, tired of life; and more than half of those I interviewed in Katrin had recently been ill or considered themselves unwell. Wilkinson & Pickett explain: ’The biology of chronic stress is a plausible pathway which helps us understand why unequal societies are almost always unhealthy societies’ (2009: 87). By this analysis it is possible that the structural inequality experienced by Bedu in an Egyptianized society may account for the levels of sickness and stress reported by my respondents. What might account, though, for the far higher numbers reporting themselves sick in the village compared with outside? Wilkinson & Pickett point to ‘group density effect’, noting that the health of stigmatized minority communities in areas where their peers are concentrated is often better than that of their more affluent peers in areas with more of the dominant ethnic group. The latter are ‘more aware of belonging to a low-status group and encounter more frequent prejudice and discrimination’ (2009: 168).

That people who live in Katrin or close to the road are continually subject to state control underscores the problem. A Feiran woman told me: ‘There’s not enough freedom here. You can’t talk openly - people are looking over their shoulder. There are tensions in the community - it causes psychological problems.’

A Jebeliya Sheikh commented: ‘In 1967 we had only simple food but people were healthier. My father never took medicine. He walked miles every day. He was never ill. Now people

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217 Interviews 42, 19/07/07 & 44, 21/07/07. Drugs surfaced often in non-interview conversations in Katrin, but interestingly was only discussed as an economic issue, not a health issue, outside Katrin where use is more prevalent.  
218 Interview 59: 08/05/08
have twice as much but they are ta3baen all the time.'

Even while they enjoy more ‘development’, better services and more money, Jebeliya in Katriin are constantly controlled and visibly disadvantaged. Wilkinson & Pickett’s findings suggest that this may influence their reported ill-health.

**Polarization and the production of poverty**

Structural inequality is compounded for Bedu by increasing polarization within their own society. ‘In the past people had very little but they needed very little,’ an elderly Jebeliya explained. ‘Now they need a lot. They see things and want them - they want a TV, a fridge, etc.’

As I showed in Chapter 7 (Tables 7.4, 7.6) some people have succeeded in earning enough to participate in the new order and acquire new tokens of wealth: cars instead of camels, TVs with dishes, even an occasional computer. Of the 15% (18/122) of my respondents who made positive comments about changes in their lifetime to bedouin life, five did so on the basis that education gave them better opportunities than in the past. The remainder all cited material improvements and services, primarily electricity, motorized transport, and the ability to buy commodities that were formerly labour-intensive to produce. People with access to modern commodities, then, are apt to appreciate them: ‘There’s been a great change for the better,’ a Jebeli man in regular work told me. ‘There’s work now. People have mobiles, TVs and dishes. They live in proper houses now, not caves in the mountains.’

In urban St Katherine, the biggest single axis of variation in my PCA describes forward-looking younger family men in work, positive about the future and reporting their personal circumstances to be improving. They include the small number of optimists who see a future for Bedu in which young people will improve their social and material status by studying to work in professions (6%); the government (3%), IT (6%) or languages (14%). However, they are far outweighed across the whole sample by those who view change as negative and future prospects as limited to handicrafts (12%), tourism (27%) and traditional agropastoral livelihoods (41%). The ambivalence of many people to modern life was summed up by Saelim, a Jebeli man:

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219 Interview 56b:16/08/08
220 Interview 55: 31/07/07
221 Interview 13: 11/05/07
222 Accounting for 11% of variation in my St Katherine dataset
223 Interview 34: 12/07/07
I try to maintain the old traditions in my family. I loved the old life of moving up to the mountains and living in tents - but my wife and family don't want it. In the old days everyone ate very simply but they were much healthier - they had fewer illnesses then. Now they have illnesses they never had before. Then I would wake up and eat bread with oregano and salt and feel great - I never had a headache. Now I might eat meat or liver, but I can't get up in the morning. ’ (Saelim ironically sings a song: ‘Life is good…!’) ’But people have changed - and they have changed our culture and nature. It’s not right, the Egyptians taking over the community, getting jobs, getting ahead, when the Bedu are going backwards, getting left behind. (Another man in the room backs him up.) ‘We’re impatient’ he says - ‘The Bedu want help now, not shwaya shwaya - (little by little): we’re fed up with waiting for things to improve.’

While some adapt and benefit, then, most are unable or unwilling to embrace changes that require them to change their mindset as well as their livelihood. An Awlaad Sa3iid man commented: ‘Some people in Sinai can’t find their dinner, while some play all night in casinos.’

Prior to the imposition of what Sachs (1992: 4) calls the ‘spreading monoculture’ of evolutionist, economized notions of ‘development’, people used their own yardsticks for judging prosperity. Lummis (1992:49) notes that the idea of the common good, or ‘common wealth’, often went hand in hand with co-operative use of resources and moderation in private consumption. These have characterized bedouin practice: as we have seen, customary law has provided both for shared resource use and restrictions on resource use in the common interest (Perevolotsky 1987; Hobbs 1995, int al). Bedu play down wealth relative to values they consider more important, such as honour or ancestry. Clinton Bailey (2004) has collected 1350 proverbs and aphorisms (in current use within the past decade), which highlight key aspects of bedouin life: his collection contains just three references to wealth and not one to poverty; eight to hunger, but 63 describing the importance of generosity to guests. The few on leadership stress the sheikh’s role as servant of his people, his generosity and his ability to protect others: Ash-sheikh, ‘abatah wasi3a: ‘The sheikh’s cloak is a wide one.’

Approaches to life that accord higher worth to social values than economic wealth are discounted in the process of modernization as contributing to ‘underdevelopment’. The global reach of ‘development’ thinking, Lummis (1992: 48) comments, ‘dispossesses the world’s peoples of their own indigenous notions of prosperity.’ The satellite dishes bringing soap operas and enticing adverts, then, have changed more than just the physical landscape: they have altered people’s interior outlook, introducing an individualistic, consumerist ethic wholly at odds with the bedouin norms I have described. As a result, I was told, people now think more about themselves than others, eroding community cohesion. ‘Nowadays, the strong eat the weak’, was a phrase I heard often; and a common
response to my asking what single change people would make in their community was: ‘For people to care about each other again.’

Bedouin material culture has historically been minimal, and differences in wealth were matters of degree, not kind (200 goats or 20 goats). Wealth based on livestock was an impermanent state, and kudos more readily earned by giving it away than by accumulation (Salzman 1999; Lavie 1990; Bailey 2004). For Bedu, then, the valorization of modern material goods introduced by ‘development’ is doubly damaging: it both contributes to their assessment by others as ‘primitive’ (Green 2006: 115) and undermines their self-worth as Bedu. Compromised identity might be counted with the ‘existential lacks’ noted by Rahnema (1992: 160) as constitutive of poverty. The ‘double whammy’ is the notion that the acquisition of modern commodities makes them de facto less Bedu (‘Abd el Baset 2005). A Bedu judged successful or comfortable by ‘modern’ standards cannot, by definition, be a Bedu: when Mohammed and I attended a consultation meeting dressed in business clothes, an EU official asked him to report a decision to the Jebeliya: ‘You were originally Bedu, were you not?’ he asked. In the eyes of the official Mohammed had transcended his previous state. He could not be both professionalized and a Bedu: the states were mutually exclusive. This provokes an internal struggle between the need for a meaningful identity and a reasonable desire for comfort (eg owning a fridge in a very hot climate), or status (in a society changing its ways of attributing value to individuals). People negotiate this conundrum as best they may. A guide told me he had been upset by western tourists, who then offered to buy him a Nescafe as a palliative. ‘I’m bedouin! I don’t drink Nescafe!’ he had shouted at them, asserting himself by rejecting the western commodity.

8.3: Response and resistance

The reductionist view that the identity of different peoples is immutably shaped by certain aspects of their culture denies the plurality of human identity, and people’s individual and collective agency in choosing how they should be represented (Sen 2006). The view that an educated or westernized Bedu has somehow transcended a ‘bedouinness’ defined in a pre-development era is essentializing, limiting and inaccurate. In fact, bedouin identity - like that of other people - is continually changing, shaped in relation to what Hall (1996: 4) terms the ‘constitutive outside’: the historically specific developments and processes, and their attendant discourses, which have impinged upon populations in the course of modernization. Whilst remaining linked to origins in an historical past, Hall comments,

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225 EU office, el Tur, 06/03/09.
226 Conversation, 27/07/07
‘actually identities are about... the process of becoming rather than being: not ‘who we are’ or ‘where we came from’ so much as what we might become, how we have been represented, and how that bears on how we might represent ourselves.’ Identities, then, relate less to tradition than to the invention of tradition: ‘not endless reiteration but...‘the changing same’.’

Dalby & Mackenzie (1997: 100) note that when local communities forge a collective identity in response to a threat, political struggle often plays an important part in the process. As we have seen, political activity under Egypt’s State of Emergency is subject to massive control and forbidden to civil society organizations. Bedu have neither incentive nor inclination for civic engagement, and the security presence makes physical resistance unthinkable in all but isolated incidents. How, then, can people register protest? In what follows I first illustrate tactics employed as ‘everyday resistance’ (Scott 1985), to shore up self-respect in the face of disrespect. I then suggest that South Sinai Bedu draw on aspects of their historic identity to resist their marginalization by occupiers, noting the different strategies adopted in the face of Israeli and Egyptian dominance. I use my own findings to support the view that bedouin identity remains grounded in their relationship with the natural environment, and that a reworking of that aspect - in opposition to the authorities - helps people restore meaning to their position as Bedu today.

Stories as resistance

Smadar Lavie’s sophisticated ethnography of the Mzeina (1990) hinges on her recognition that individuals can be presented as archetypes embodying key attributes of bedouin identity. The lives of these individuals encapsulate the absurdities and contradictions of bedouin life under Israeli military occupation: nomads settled in houses, smugglers prevented from smuggling, 3urfi judges in a western legal system, leaders suborned by occupiers, women’s roles subverted, amongst others. Lavie demonstrates that through allegorical storytelling the attributes they embody - the protective power of a sheikh, the cunning of a smuggler, the power of a woman in her sphere - can be reinvigorated, their potency restored to listeners whose structures of meaning have collapsed. In confrontation with the Occupier, the skills and values that inform bedouin identity can be shown to gain (qualified) advantage; not recapturing their former power but restoring people’s recognition of them as agents of meaning. In my conversations I have looked for moments of heightened meaning such as Lavie describes. They are rare but they are powerful. The stories and events below came to me over a period of four years through a gifted Jebeli storyteller whom I shall call Jema3. In places the stories are critical of Bedu as well as Egyptians. They cannot withstand allegorical deconstruction, but they still convey a meaning that bears on identity and illustrates resistance.
Story 1: 2007 Jema3 has hired a builder from Cairo to work on a project, but he hasn’t shown up. Eventually Jema3 gets a call from a nearby checkpoint. ‘Your worker is here but we took him off the bus. He is a bad man, a thief. We are holding him.’ Jema3 drives out. ‘This man robbed a jeweller’s shop,’ he is told. ‘He’s a very bad man.’ Jema3 knows what is required; his hand slips an envelope under the table. ‘A good man, this, and a good worker, no doubt!’ the policeman beams, releasing the builder. Then he says casually to Jema3: ‘By the way, I haven’t seen you for ages. Why don’t you invite me for dinner?’ Jema3 feels in his pocket, pulls out 10 LE, and hands it openly to the policeman, saying contemptuously: ‘If you’re hungry, buy your supper from the cafe.’ Then Jema3 muses: ‘These guys, they come from the city. There’s nothing for them here, they’re bored, they earn a pittance. No wonder they turn to the bad…’

Story 2: 2008 I am present when the Cairo branch of an international medical charity descends on Katriin. A foreign visitor has alerted them to bedouin conditions. Their Chair is a urologist, now hell-bent on improving the health of bedouin kidneys. The good doctors have been directed to Jema3 - who knows the community well- to decide who deserves their help. ‘How many kidney patients are there round here?’ Jema3 thinks and gives the number. ‘Do they have relatives? Are they healthy? Good - we will transplant them.’ Jema3 looks shocked and remains silent. ‘We will transport them all to Cairo free of charge. We’ll take a healthy kidney from the relatives and transplant them all.’ Jema3 is speechless. ‘Right - that’s settled then.’ The urologist instructs Jema3: ‘Draw up a list of all the patients and their relatives and we’ll make the arrangements.’ He exudes satisfaction at a job well done. Then turning to me, in front of Jema3, he says coldly in English (which Jema3 speaks well), ‘Make sure he knows what we want.’ Jema3 says nothing: he and I leave in silence. After a minute we look at each other and laugh - mirthless laughter the only possible response.

Story 3: 2009 One night, a ranger is up on the Mountain, checking conditions, when a group of tourists and guides appear, all in disarray. One guide had lagged behind the rest at the start; his tourist took longer to mount his camel. In fact the tourist never mounted at all, but fell off the other side and was left behind. The guide, unaware, had trudged onward for half an hour before looking back. ‘Oh no! He’s gone!’ he cried, seeing the empty saddle. ‘The spirits have taken him!’ The others were spurred. ‘The spirits are out tonight - can’t be too careful!’ At a bend in the path they stop, and one tourist slips over the wall for a comfort break. His guide looks back. ‘Oh no! Now mine’s gone! They’ve taken him too!’ The guides confer in panic and refuse to go on: the afriit (spirits) have made it too dangerous. But luckily the ranger is there - Jema3 leans forward for the punchline - ‘Don’t worry,’ the ranger says. ‘The Mahmiya will investigate.’

Story 4: 2006 Jema3 is en route to Katriin from the Suez coast when he spots workers from a large construction company attacking a venerable acacia in the course of exploring a site. The trees are highly valued by Bedu and grow very slowly. He stops, and with his companion gets out to berate the workers, who ignore him. He calls the PA to let them know what is happening, expecting them to intervene. The next day he calls at the PA office to urge them to take action to save the tree. They say they will look into it. On the third day Jema3 drives back to the coast. Nothing has been done, and the tree is uprooted at the roadside, completely destroyed.

Story 1 is an act of moral resistance. It is not just another tale of corruption, which are legion; Jema3’s response moves in it from frustrated acceptance of the policeman’s ploy to
anger at his effrontery, where such stories usually stop. This one goes two steps further, however. First, by giving the policeman money for food, Jema3 reverses the power dynamic of the encounter: he leaves having established a superior position. Then, in the telling, his response moves on to the higher moral ground of one who, understanding all, forgives all. The story reverses the usual direction of demeaning judgement, allowing the teller to claim moral authority for the Bedu.

In Story 2 Jema3 is not teller but protagonist. It shows his passive resistance to an arrogance so brazen it could not be answered in words. By remaining silent Jema3 refused to accept charity offered with overbearing insensitivity towards its supposed beneficiaries.

Stories 3 and 4 bear directly on the primary way in which, I shall argue, Bedu differentiate themselves from ‘the Egyptians’: by rediscovering, or reinventing, a role as guardians of nature. Story 3 targets credulous Bedu as well as Egyptians: we laugh at their foolishness, but the punchline reverses the target. The PA has power to control the Bedu because its regulations are based on science: rangers must have university degrees, and a PA programme sets out to educate the Bedu. Yet in this story, instead of dismissing tales of ‘spirits’ as superstition, the PA takes them seriously. ‘The Egyptians’ are shown to be no more rational than the Bedu they claim to educate, robbing them of legitimacy and restoring to the Bedu some moral authority. The same point is made in Story 4, but more acutely. The PA is responsible for protecting the environment, but it neglects its duty. It is the Bedu who see and respond to nature and take an active role in protecting it, while ‘the Egyptians’ ignore both nature and the Bedu themselves.

A belief in a bedouin role as guardians of nature permeates the thinking of so many people I spoke with that I came to see it as a central to how Bedu give their lives meaning today. In my final section I examine how Bedu have stressed different aspects of their identity both to differentiate themselves from those they experience as occupiers, and to draw meaning from aspects of historical identity in order to make sense of the present. I present evidence from my research demonstrating the continuing centrality of nature in shaping both bedouin identity and relations with the state.

Identity as resistance

Before 1967 the Bedu in South Sinai practiced Islam in a rather singular way. Their practice centred on the cult of local saints’ tombs and shrines, the saint acting as a mediator between members of the tribe and God. Whilst regionally common and not proscribed, Marx (1977) explains, these cults departed somewhat from orthodox Islam. They persisted because annual pilgrimages and gatherings at saints’ tombs served an equally important social purpose, providing a focal point for meeting people, extending connections, doing
business, arranging marriages and consolidating a sense of tribal identity. A group of Israeli academics who lived in Katriin throughout the Occupation expressed surprise that the village now has one main and several satellite mosques: forty years ago Bedu in Katriin did not practise their faith openly except through pilgrimage, I was told. However, this may have been due to the uncommonly cordial relations between Israelis and Bedu in Katriin: elsewhere, Lavie (1990) tells us, in response to the promiscuity of holidaymakers in new-built coastal resorts, mosques sprang up, radios were tuned to the sermons of Saudi imams, and people took to praying five times a day. The Bedu’s adopted piety was a conscious act of resistance to behaviour that offended their Islamic moral values; a selective emphasis on an aspect of their identity that differentiated them from their occupiers.

Today this tactic has lost its rationale. Now that the dominant group is also Muslim, faith has no power to differentiate. Annual pilgrimages have long ceased; devout Bedu pray alongside devout Egyptians in newly-built mosques. How else, then, might the Bedu set themselves apart? Dalby & Mackenzie (1997: 102) explain that a community’s resistance to a contemporary external threat may take the form of reconstructing the past, especially where past traditions have been diminished by modernization. This is what Hall (1996:4) means by the ‘invention of tradition’ to construct adaptive identities. Prys Morgan (1983) describes how the political suppression of Welsh nationalism led in the 19th century to the invention of a folk tradition; romantic mythologizing providing a future vision for people whose culture had been suppressed. Rather than asserting their identity through faith, I believe Bedu today are drawing on an identification with the natural world established through the practice of pre-development livelihoods, an element of bedouin identity that persists despite the dramatic decline in that practice.

*Environmental identity: nature=life*

It is challenging to speak of the Bedu’s relationship with their environment in a way that avoids romanticizing on the one hand, and borrowing from narratives of primitivism on the other. The process of managing scarce resources has led detailed empirical knowledge and ecological expertise to accumulate over many generations (Perevolotsky 1981; Perevolotsky et al 1989; Hobbs 1995; Zalat & Gilbert 2008). It is clear from everyday talk and observation as well as my interviews that the natural world impinges constantly on bedouin life and priorities: the majority of Bailey’s (2004) 1350 proverbs are concerned with it, and 58% (72/122) of my respondents said they loved natural aspects of their home. However, such observations are too often used to bolster narratives of ‘Bedouin culture and heritage’ that

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227 Discussion, Jerusalem, 01/08/08; Avi Perevolotsky and others
228 Some annual tribal gatherings still happen (the Mzeina mulid at Sheikh Faranja probably being the biggest), but their significance is not religious.
229 Following Hobsbawn & Ranger (1983)
portray Bedu themselves as ‘an endangered species’ (Hobbs 1996: 12), legitimizing their consignment, along with all their aspirations, to the realm of conservation.

The modern western separation of ‘nature’ and ‘culture’ is culturally conditioned, and does not correspond to the way other people see and categorize their world. Bedu make no such distinction. ‘The environment’ is the place they live in, the surroundings that facilitate or hamper their ability to conduct their lives alongside its other elements: weather, plants, trees, wildlife, people. I learned this lesson empirically at the start of my fieldwork, when in answer to my request for an alternative term for ‘the environment’ (bi3a), my assistant doggedly insisted on haya’ - meaning simply ‘life’. He did not assign the landscape ‘out there’ to a different category, as I did. West, Igoe & Brockington (2006:16) comment that local people and researchers ‘have vastly different systems for evaluating the value of plants, animals and natural processes.’ Lavie (1990:98ff) illustrates this, recounting Mzeina mockery of Israeli academics who came to Sinai to study mice and even rocks, gushing over the beauty of the landscape. She reports a conversation between a Mzeina sheikh and an Israeli Ranger: ‘It’s great that your government pays you just for playing ‘Nature’... with [your pretty] red clouds...You put your money in the bank. But we have no bank. All we ever had is this Sinai and that’s it. And for our life we have to take from it’ (my emphasis).

Bedu, then, see people and nature as belonging to an interdependent system which they can legitimately draw on as needed. There is universal acknowledgement that people hunted in the past, when they were poor, to feed their families; some admit (Hobbs, Grainger & Bastawisi 1998) that ibex populations suffered as a result. People still pasture their flocks in the landscape where they can, and treat themselves and their livestock with medicinal plants. With entitlement to use natural resources, however, comes responsibility towards them, as indicated by customary practice: restricting hunting, grazing and tree-cutting, and providing pools so wildlife can drink. ‘Abd el Baset (2005) investigates environmental perceptions in the Jebeliya. Her respondents indicate that they view themselves from an early age as part of an ecological community that includes people, noting that (2005: 30): ‘[Respondents] were adamant about wild animals’ right to live, and how they were not dangerous as they had their own habitat....wild animals do not represent a great danger for them as long as they live in their own place.... The animals were only active at night time.’ Wildlife, in this vision, has its own temporal and spatial ‘place’ within shared time and space230. Predators that stray outside their proper place receive no quarter (Reiss 2001: 53). This approach enmeshes, as Peet & Watts express it (1996:263) ‘the social construction of nature’ with the ‘natural construction of the social’: a Tarabin man

230 see also Brockington (2002: 19)
remarked to me: ‘The Bedu have lived here throughout history. An Egyptian can come here and work, but if we go to Cairo we cannot live our life. It is unnatural’ (my emphasis).231

The environment is one of many elements that, historically and currently, have affected Bedu, and in response to which they have adapted their aspirations and lifestyle. That said, the bedouin environmental imaginary ineluctably conditions people’s view of themselves as being in contiguous relationship with the natural world. As it was expressed to me, their environment and their life can be denoted by the same word, just as the word ta3baen is used to describe their gardens parched from lack of water, and their own feelings when they contemplate them. A young Awlaad Sa3iid man from a remote wadi put it this way: ‘I love it here, partly because it’s so quiet, but also because there is a connection between people, the animals and the mountains. You can’t get that in town.’

The bedouin view of nature, then, is ecocentric: according to Stets & Biga (2003: 409) this signifies that ‘while human beings are valuable and unique, they are seen as one among many other species and objects (such as rivers and forests) that are of worth. When humans act, they must consider environmental forces that may impose constraints on human affairs…. (T)hose holding an ecocentric view would be concerned with the environment, define their relationship to it as interdependent, and be active and involved in the biophysical world.’ Moreover, they add, ‘persons who claim an environmental identity…are [not self-interested but] concerned about the environment for reasons that are other-oriented. Behaving in an environmentally irresponsible manner can hurt other humans and the biosphere more generally.’ An environmental identity, then, is consistent with the resource-sharing and resource-conservation practices espoused by Bedu, and with their emphasis on group rather than individual welfare. 43% of my respondents (53/122) volunteered that if they could do only one thing they would restore the environment, especially water, for the good of their community. Several added specifically: ‘So people can grow things again.’

As we have seen, Bedu in St Katherine recognized in their Israeli occupiers a similarly ecocentric view. This facilitated relations between the dominant and subordinate groups where, as in St Katherine (see Lavie 1988), those relations were played out largely in the context of research and conservation. However, as I have shown, Egyptian environmental policy is grounded in anthropocentric high modernism. An anthropocentric view is defined as follows by Stets & Biga: ‘The environment does not have intrinsic value; instead, it is a means to human ends.’ This approach could not be better illustrated than by the vision

231 Interview 76, 11/05/08
232 Interview 121: 27/08/08
233  As noted in Chapter 4 the preservation of Sinai’s nature and bedouin culture were part of Israel’s nation-building project.
statement of the St Katherine Protectorate itself, which pursues: ‘the conservation and sustainable development of its natural and cultural resources...[ensuring] long-term local and national benefits for the people of Egypt.’ (SKPMU 2005: 3). For the modernizing Egyptian state, then, ‘the environment’ is a resource to be used for human benefit. For the Bedu it is the indivisible medium of their life, a milieu from which they see themselves as inseparable.

This opposition creates constant tensions in the arena of St Katherine, where those officially charged with conservation have neither the resources to conserve nature effectively nor the power to prevent its degradation by modernizers. Every new line of streetlights, every new block of flats, is perceived by the Bedu as an affront, not only to their environment but to themselves as part of it. Dalby & Mackenzie (1997:101) comment that: ‘the process of specifying a threat is intrinsically also a process of specifying that which is endangered.’ By this means the despoiling of nature has increased people’s consciousness of their relationship to it. ‘Development’ has given bedouin environmental identity a new significance, as a means to differentiate Bedu from the developers. Bedouin opposition to state-led development is seen most clearly in the views people expressed about the Protectorate.

SKP singled out

It is of major importance for this thesis that the most important single perception emerging from my data was negative assessment of the Protectorate, its services and its impact on the environment.234 This was coupled with negative comparisons between its first and current phases, and negative assessment of changes in the ‘traditional’ bedouin way of life. Whilst my data in general revealed diverse attitudes and perceptions, this negative response to state-led conservation emerged as the most significant single perceptual factor; a fact the more remarkable since I stringently avoided leading questions about the PA or any that asked people to evaluate it. I asked simply whether people lived inside or outside the PA; if inside, what services it might provide and how, if at all, it affected them. The questions often unleashed a torrent of ill-feeling exceeding any other subject but ‘the Egyptians’ in general.235

This finding emerged from those variables concerned only with people’s perceptions. Analyzing all the variables together reveals a further striking association between attitude to the PA and location. People who live in remoter areas (measured by jeep minutes from the road) are associated with approval of the PA, positive assessment of its impact on the

234 My interpretation of the PCA axes referred to in this section appears at Appendix 4.2 (p234).
235 Since I asked no direct questions about state authority, these attitudes were reflected in my variables and analysis only as broader comments on ‘Bedu-state relations’.

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environment and services, and a positive view of Bedu-state relations. The Protectorate still provides health and veterinary services in some remote communities I visited, and several interviewees expressed appreciation for the freedom and lack of oversight they enjoyed away from the road. However, because these correlations are grouped along an axis, their reverse is also true: that people in urbanized settings or close to the road (a prime site of state control) tend to be negatively disposed to the PA and its impacts and unhappy with Bedu-state relations. Interestingly, in view of Wilkinson & Pickett’s analysis, people in remote locations suffer less from neurological conditions and depression, whereas those under constant control, as we have seen, commonly report both.

Hostility to the Protectorate, then, is not universal: there were many positive comments about it, and not only from people beyond the reach of the security apparatus. In particular, men who had ever worked for the Protectorate were significantly more likely to approve of it (11/122; KW=4.15, df=1, p<0.05). This suggests that its role is poorly understood, and that many people conflate it with other arms of a state which they distrust. However, the force with which people express their feelings about the PA indicates, I believe, that something more is at stake than mere dissatisfaction with services. The failure of conservation matters more to Bedu than other failures. Of all the complaints I heard about other aspects of ‘development’ - education, healthcare, even policing - nothing matched the depth of resentment expressed about the Protectorate. It is, I believe, not a situational but an existential response, to a devaluing of nature that people perceive as extending to them. The following comments, made by senior members of two tribes outside Katriin, are representative, if more forceful than most: ‘The PA is zero - crap!’ a Sheikh exclaimed. ‘They’re supposed to look after the environment but they do nothing. Under the Israelis it was different - they were great for the environment. And when the PA was managed by foreigners it was fine - it’s just under the Egyptians that it’s become useless.’ Another went further: ‘The PAs do nothing in the whole of Sinai. They’re just a joke. They’re little Egyptian people - they get themselves an office and a car and go about. They just enjoy themselves, staying in their cars and offices. But nature here is all fucked up! Come out with me in the mountains and I’ll show you! This is bedouin work, to go into the mountains, the sea, the Coloured Canyon, to look after nature, make sure no-one cuts trees. The Egyptians just enjoy themselves, and nature gets fucked.’

Romance and irony

As we have seen, bedouin environmental identity draws on the past to make sense of the present. It is in a sense a romantic enterprise, invoking a narrative of a harmonious past in which ibex and leopard were not overhunted and everyone loved each other. The casting of

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236 Interviews 80: 15/08/08, and 76: 11/05/08 - the latter conducted in English.
Bedu as environmental angels entails a degree of irony: with consumer goods a recent arrival, no customary law governs waste disposal, and bedouin settlements are as littered with rusty cans and broken bottles as any Egyptian locale. This does not detract from the power of the idea. Stets & Biga (2003) argue that the prominence of an identity depends upon the level of commitment to it and support for it in a community, and the extent to which it brings intrinsic or extrinsic rewards. The extrinsic response to Bedu is generally negative whatever their behaviour, making behaviour almost irrelevant: as Salzman comments (1980: 9): ‘A detailed account of Bedouin ideology would provide a good number of assertions which point to group unity and functioning but seem to have little basis in behavioral reality.’ What matters today is the social cohesion reproduced by rediscovering environmental identity as an act of resistance.

The counter-myth can in any case be overstated. Although Perevolotsky (1989) reports grazing restrictions to be alive and well, in the post-Israeli period commentators and conservationists - possibly to justify conservation interventions - consistently reported a loss of interest in conservation among Bedu (eg Hobbs 1996; Hobbs, Grainger & Bastawisi 1998; SKPMU 2003). Both western and Egyptian conservation policy has assumed that resource management practice such as helf was a thing of the past (some using this as a rationale for instructing Bedu in their own resource management techniques). However, my observations were quite different. Although many respondents qualified their replies - ‘We would use helf if there was anything left to conserve’ being a common comment - more than half the people who were free to apply conservation measures did so (56%: 34/61). 80% of active conservers are flock owners (27/34), and most of them therefore older men (65% of conservers are over 40). However, a third of the younger men also report using traditional conservation methods, suggesting that in those families where flocks have been maintained, customary resource management practice is transmitted along with animal husbandry. Several people mentioned the existence of helf in their area even though they had no flock themselves. All this suggests that reports of the death of bedouin environmental responsibility may have been exaggerated; especially since the older ‘conservers’ in my sample are the self-same cohort consulted in the ’90s. A renewal of environmental identity may be a recent response, but it is arguable that the ‘Bedu-as-conservationist’ never really went away.

The second irony is that those who now stress this identity most forcefully are those whose dependence on nature is receding the fastest. People in the wadis who have maintained agro-pastoral livelihoods, even in an attenuated form, enjoy a greater sense of freedom and wellbeing and - despite having access to less cash and fewer facilities - have a broadly

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237 ie those outside Katiriin. In the village, as explained, City Council regulations override customary practice, and just three people in peripheral locations mentioned helf.
positive outlook. They feel less need to idealize the past because they are still, to some extent, living within its dynamics. Those in the village or on the road, in contrast, are more removed from ‘traditional’ roles, and seek validation as individuals and as a community in the ideal of bedouin stewardship of nature. Dalby & Mackenzie (1997: 102) quote Cohen (1985:99): ‘the re-assertion of community...is often accomplished through precisely those idioms which these circumstances threaten with redundancy.’ People in Katriin have learned from experience that they, and those of their occupiers who might have been their allies, are powerless to stop ‘development’ from denaturing their environment. By asserting their environmental identity they are trying, against the odds, to prevent it denaturing themselves.

Conclusion

The conservation apparatus in South Sinai has been experienced by the Bedu more as a means of control than of environmental protection, an aspect of the securitization of Sinai that arguably - whether consciously or instrumentally - provides its rationale. The visible failure of state-appointed guardians of the environment to protect it leads Bedu to view today’s Protectorate as simply another agent of arbitrary authority, charged with controlling and assimilating them into mainstream Egyptian culture. The structural marginalization of Bedu means they cannot compete for jobs with the Nile Valley Egyptians settling in increasing numbers in the region. The result is growing inequality, with the poverty experienced by many Bedu unrecorded and unacknowledged by the state. In St Katherine itself and near the road, continual contact with the dominant community and subjection to state authority creates stress that may contribute to higher self-reported illness. The introduction, through ‘development’ and tourism, of a westernized consumerism creates further tensions, leading to a polarization in bedouin society between those who have adapted successfully and the many who have not. 85% of my respondents concluded that life for the Bedu had changed for the worse.

In response, people find ways of asserting their identity that do not run foul of the security apparatus. For some this involves lampooning ‘al masri’ as fat or unfit. Others tell stories that restore moral authority to their bedouin protagonists. But the strongest response that emerged from my research was a tendency to assert the role of Bedu as guardians of nature, in opposition to those who are charged with that duty but who fail to fulfil it. The emergence of negative views of the Protectorate as the most common single perception of my sample emphasizes the strength of of this feeling. It is due, I argue, to the Bedu’s view of themselves as part of their environment, and their resentment at a neglect that they feel, with good reason, extends to them.
Chapter 9

Conclusion

Review

I began my study with three questions: Why is there such a gap between policy and practice in Egyptian conservation? Why have so few Bedu benefitted from the development of South Sinai? and is there a link between neglect of the environment and the marginalization of the Bedu? I started it in the hope of contributing to calls for more systematic studies of the social impacts of Protected Areas (Brockington & Schmidt-Soltau 2004; Wilkie et al 2006; Brockington, Duffy & Igoe 2008). I expected to compare livelihoods as reported in the Israeli era with those following the establishment of St Katherine Protectorate. I started in the expectation of finding negative impacts associated with western-led conservation. In the event, my expectations were overturned and the basis of the study re-drawn. So many factors had affected the Bedu in South Sinai that it was impossible to interpret social change through the prism of conservation alone - although conservation turned out to shape bedouin responses to development in ways I had not anticipated. I have attempted in this thesis to outline key aspects of the tidal wave of development-induced change that has swept over the Bedu in the past four decades, and which they continue to ride: ‘surfing over and inside the waves’, as Rahnema (1992: 170) puts it.

In Chapter 1 I identified political ecology as the conceptual framework best suited for understanding the key issues emerging from my fieldwork. Moving beyond its original focus on bedouin agropastoral livelihoods and household economy, my expanded study had required wider networks of explanation to account for my emerging findings. An analysis that interrogated the way nature is constructed and knowledge produced by different actors within a vertical topography of power enabled me to interpret the marginalization of most Bedu in a modernizing state, and the impacts of donor- and state-led conservation in contributing to that outcome.

In Chapter 2 I reviewed literature charting the experience of nomadic pastoralists in the Middle East and North Africa, based on dynamic livelihood strategies, multi-resource economies and interdependent relations with settled peoples. I considered the experience of Bedu in other parts of the region, and their relationships with the states of which they are citizens. Aspects of general bedouin culture were touched on: tribal structure and leadership, honour in law and poetry, and the importance of herding to bedouin identity. I identified South Sinai Bedu as conservative in relation to others; and described their pre-
development core livelihoods and additional occupations as recorded by Israeli commentators.

Chapter 3 explained my own position as an actor in St Katherine, not as a short-term researcher but as a long-term visitor, and now as co-founder and Chair of an NGO working with local people. I noted the tensions sometimes caused by my personal connections with key actors in conservation, both international and Egyptian, and my growing acceptance as a resident by the bedouin community. I explained how learning Arabic, and my bedouin field assistant, helped me build trust, facilitating my research and encouraging people to express themselves freely. I outlined my methodology: study design and sampling, questionnaires and interviewing, data processing and analysis.

In Chapter 4 I drew on contemporary accounts by Israeli commentators to describe the impacts of development processes on Bedu after 1967. The economy of agropastoral livelihoods was critically affected by sedentarization, requiring massive de-stocking to avoid overgrazing in the village that grew up around the administrative centre. Migrant work removed labour from gardens, and markets for bedouin produce were lost. As a result, the flocks and gardens that had typically sustained families for ten months a year produced little or no income, changing the basis of livelihoods in less than a decade. The integration of Sinai into Israel’s inflationary economy made wage work a necessity, though presented by commentators as a choice. Return to Egyptian rule brought further change, with a massive growth in tourism accompanied by Egyptian workers to service the industry. Government policy to Egyptianize Sinai meant the Bedu became a minority, disparaged as ‘not really Egyptian’, whose needs as a group went unrecognized. Planners assumed they would benefit from ‘trickle-down’, but only a few have done so.

Chapter 5 examined the basis of Egyptian environmental policy, highlighting the gap between a rhetorical commitment to conservation, enshrined in law and the protection of 15% of its land; and a reality in which conservation is critically underfunded, economic development is privileged by the state, and conservation structurally weakened by lack of political support. Against this background, the international management of the EU-funded St Katherine Protectorate was able to promote it as a flagship conservation-and-development project, explicitly consulting and involving Bedu in its planning, and establishing outreach services and employment programmes to offset the ‘opportunity costs’ of conservation. However, since its transfer to Egyptian management the Protectorate has declined; services have been cut back and community relations have soured. Bedu have resented the stringent application of environmental regulations to them, while more powerful interests pursue damaging developments unchecked.
In Chapter 6 I interrogated a dominant narrative that has informed conservation policy in both the Protectorate’s phases: environmental degradation caused by ‘Bedouin overgrazing’. Anthropogenic and environmental factors have steadily reduced pressure on grazing in all but a few localities, yet despite the Protectorate’s own evidence of minimal grazing impact and improved ecological conditions, I showed that overgrazing is still treated as a major threat. I examined analyses by academic researchers that attribute vegetation change to overgrazing alone, in spite of alternative evidence; and I suggested that recent PA programmes to educate the Bedu owe much to the view that indigenous knowledge must be re-made as a product of modern Egyptian conservation before it can be integrated into its ‘national heritage’.

Chapter 7 presented the livelihood data from my fieldwork. I demonstrated a historical decline in flock size of 95% from the 1960s to the present day, and a concomitant decrease in the economic value of agropastoral livelihoods. I examined differences in horticulture and herding in Katriin and in rural areas, noting that while fewer people retain livestock outside the town, those who do have larger, more productive flocks. I examined patterns in how people make their living in and outside Katriin, demonstrating the lower earning power of work today compared with the 1970s. I illustrated growing inequality within bedouin society, with consumer goods and non-staple foodstuffs bought more frequently by those in town; and between Bedu and the general Egyptian population, using national comparators to demonstrate lower access by Bedu to most consumer durables and services.

An historical comparison of two families showed dramatic changes in consumption and expenditure patterns over time. Today, almost half of their food budget is spent on products formerly produced at no net cost from their flocks and gardens; and the cost of these products is rising at twice the rate of staples. Finally, I demonstrated using two indicators - per capita daily income and per capita expenditure on food - that half my sample (which in my household survey covered approaching 10% of the estimated population of the area) have income levels at or below the World Bank’s absolute poverty standard of $1 per person per day; and that almost twice as many Bedu as Egyptians (80% vs 44%) are poor when measured by expenditure on food. As separate data on Bedu are not collected by national surveys, I believe this to be the first time their poverty has been demonstrated.

Finally, in Chapter 8 I analyzed bedouin responses to development and conservation experienced as control. I examined the securitization and Egyptianization of Sinai, and the impact on Bedu of living with the multiple inequalities these policies produce. I suggested that the structural inequality of Bedu as Egyptian citizens, which is not reflected in government indicators and therefore ignored by planners, may contribute to the reported ill-health of my respondents, especially in town where their inequality and subjection to
authority are most apparent. I noted an erosion of bedouin identity produced by increasing internal inequality. Discernible attempts to revalidate themselves as Bedu crystallize around dissatisfaction with the Protectorate, perceived to exercise control unjustly while neglecting its mission. In response, as an act of resistance, Bedu have ‘reinvented’ an identity as guardians of nature, just as their actual dependence on nature declines.

Discussion

Egyptian conservation is grounded in paradox. President Hosni Mubarak (NCS: 2006) declared in 2001: ‘Preserving the environment has become a necessity, not a luxury.’ Protecting massive tracts of its landmass, signing up to international conventions and enacting a raft of environmental legislation has enabled Egypt to claim regional leadership and attract donor support. However, Egypt’s proclaimed intent to conserve nature is continually undermined: state priorities, grounded in anthropocentric high modernism, in practice treat nature as a resource to be exploited for the benefit of its population (Scott 1998; Mitchell 2002). Despite presidential rhetoric the capitalization of Egypt’s nature has proceeded apace: civil engineering diverts Nile water into the desert, supporting new cities, factories and golf courses for tourists. Vested interests draw the teeth of regulation, and Egypt’s conservation effort is undermined by consistent and chronic underfunding (Gomaa 1997; NCS 2006). Commitment on paper to environmental regulation provides a green gloss, but commercial and economic developments proceed unhindered.

As a subtext, I have suggested, conservation in Egypt has instrumental effects analogous to those described by Ferguson (1994) as an ‘anti-politics machine.’ The development of South Sinai serves the state in ways that are not only economic but highly political. In terms of external relations it is designed - in the face of restrictions on militarization imposed by the Camp David agreement - to Egyptianize Sinai by populating it with 3 million citizens, making future incursions by Israel unthinkable. There is - despite Camp David - an enormous security presence in Sinai. Its ability to move and access remote territory is greatly enhanced by the presence of Protected Areas, in some of which, as we have seen, military exercises are formally permitted. The existence (Fouda et al 2006: 29) of Taba PA - a 3600 km² park with no designated staff or annual budget, abutting the Israeli border at Eilat; and of Al Ahrash - a 6 km² park with an annual budget of just 25,000 LE (about $4500/£3000), a few kilometres from the Rafah crossing into Gaza , is richly suggestive of purposes beyond saving wildlife. In Sinai, conservation provides an ‘apolitical’ rationale for the provision of infrastructure with effects at a geopolitical as well as a local level. The higher claims of economic development and securitization, then, may explain why the gulf between Egypt’s stated and actual commitment to conservation is so wide.
Development-as-Egyptianization holds the answer to my second question: why, when Sinai’s economy is rapidly expanding, have so few Bedu benefitted, becoming instead a marginalized minority in their own territory? In Katriin the Jebeliya have experienced not only dramatic changes in lifestyle and husbandry, but a wholesale transformation of their surroundings. From a village whose stone-built houses were barely detectable against the hillsides, Katriin has been made into a bustling Egyptian town of stucco-ed apartment blocks, concrete bus shelters, ‘pharaonic’ buildings, garish signage and lighting, a constant reminder of bedouin powerlessness. ‘There is no oxygen in Katriin now,’ a Jebeli sheikh told me. ‘There are too many people. We cannot breathe.’

In investigating bedouin lives in and around St Katherine I located them as pastoralists. This may seem misconceived, given the extent of the erosion of herding that I have documented. In many places - including the village of Katriin - the urbanized life of settled former pastoralists ostensibly has little in common with their mobile predecessors. However, as I showed in chapter 7, people in my sample continue to regard their role as pastoralists as central to their identity, overwhelmingly preferring to retain even a handful of confined animals rather than relinquish the role. ‘Bidoun halal, bedu mish bedu!’ (Without his animals, a Bedu is not a Bedu!): this Tarabin flock-owner expressed the common view.

Indissolubly part of the self-assigned ‘guardian of nature’ role that I have discussed, herding also links South Sinai residents to their wider identity as members of traditionally pastoralist tribes dispersed across neighbouring regions and nation-states; even where, as noted in chapter 2, the practice of pastoralism has been modified or quashed by settlement policies enabling state control. South Sinai Bedu share with their contemporaries the experience both of authoritarian states, and of conservation as their agent: what Chatty (2002) has described as ‘conservation without a human face.’ In fact Bedu elsewhere in the Middle East have often fared worse from conservation initiatives than in South Sinai.

However, whilst less obviously oppressive, Egyptian conservation is - as I have indicated - part of a nation-building project that seeks to assimilate an ‘improved’ bedouin population into a modernized state. I have argued that their very identity as pastoralists provokes attempts to ‘re-educate’ the Bedu. Allied to this approach is one that seeks to assimilate them by ignoring their needs - and even their existence - as citizens. At state level, the failure of official statistics to recognize Bedu as a separate group means their needs are unacknowledged and uncatered-for within the system. This policy - at best describable as benign neglect - may or may not be a deliberate tactic by planners; but whether bedouin needs are neglected from ignorance or by design, the poverty that has resulted from development that excludes them is no social construct but real, as I have shown. At local

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238 Interview 31: 10/07/07
239 Interview 75: 11/05/08
level, while some entrepreneurial Bedu have made tourism work for them, most have gained little. Egyptian employers decline to employ Bedu. The education most Bedu now receive does not provide access to better employment, and most survive in low-paid insecure work. Just as the demise of historic core livelihoods enforces bedouin dependence on paid work, the preference of employers for Egyptian workers in hotels, and the government's banning of desert safaris, has cut off most routes whereby Bedu can profit from the annual influx of tourists. The marginalization of Bedu is structural.

Compromised conservation and bedouin marginalization converge, providing an answer to my third question, in the relationship between the Bedu and St Katherine Protectorate. As we have seen, two very different agendas have driven the approach to the Bedu taken by the Protectorate in its two management phases. Initially, the Park took on wider aspects of development than conservation alone. While adopting a neoliberal approach that suited both the national agenda and contemporary conservation thinking, the international phase of the Park consulted the Bedu, delivered services for which they had expressed a need, and recognized their right to practical compensation for the ‘opportunity costs’ of conservation. The first phase of the Park took the Bedu seriously. This was recognized and valued: over 10% of my interviewees volunteered comments expressing appreciation of the PA - and often its Director by name - in its first phase.

A change of emphasis marked the transfer to Egyptian management. Services deteriorated due to central underfunding; but more significantly community relations deteriorated, albeit unrecognized by the PA itself (Fouda et al 2006). The reason, I have argued, was the replacement of an international conservation discourse that recognized the knowledge and rights of indigenous people by an evolutionist national discourse that viewed them as troublesome and primitive. This discourse is exemplified by Protectorate efforts to tap the ecological expertise of the Bedu, rebranding it as ‘Indigenous Knowledge’ to meet current conservation prescriptions, while re-educating the Bedu in ‘how to protect their environment’ using their own customary practices. It is visible, too, in the persistence of narratives of bedouin destructiveness by overgrazing the Park, an assumption that has survived dramatic falls in flock size, widespread confinement of livestock, and evidence of low grazing impact produced by rangers themselves. I suggest that overgrazing focusses on that aspect of bedouin life in which their ‘otherness’ is most evident: their identity as pastoralists. The Protectorate has little power, as we have seen, to control environmental damage. What it has is it tends to exercise on the Bedu, provoking anger at their differential treatment. By seeking to curtail the remains of bedouin pastoralism the Protectorate provokes particular resentment by threatening the historic identity to which, as I showed in Chapter 7, so many still cling. In this it pursues, consciously or unconsciously, the nation-building agenda of the Egyptian state. As a result, Bedu single out today’s Protectorate as an object of particular
dislike, and place new emphasis on differentiating themselves from ‘the Egyptians’ by reinventing an environmental identity as an act of symbolic resistance.

Wider perspectives

The social impacts of St Katherine Protectorate

Informed by literature on ‘People and Parks’ (from Wells & Brandon [1992] to Brockington Duffy & Igoe [2008]) I had expected to document negative social impacts of conservation. I found that while bedouin marginalization had wider origins than conservation alone, it was indeed the focus of their malaise. St Katherine has produced a range of negative consequences commonly documented in national parks, including increased elite control of resources, criminalization of local people for customary practices, and commodification of ‘Bedouin culture’ underpinning mass tourism. All these have provoked resentment among local people. But ironically, in St Katherine, it is the absence of effective conservation measures, rather than their application, that provokes most anger. Bedouin dissatisfaction owes more to the subordinate place of conservation in the hierarchy of Egyptian national priorities than to the conservation apparatus itself. In St Katherine, local people originally gave their support to the Protectorate and acknowledged the validity of at least some of its controls. Disillusion set in only when they saw those controls differentially applied, permitting the damaging developments of the powerful while penalising the projects of the poor. It is the failure of conservation to protect, while claiming a science-based moral high ground, that provokes the most resentment.

Conservation in St Katherine, then, is merely a sub-set of the ‘security-fixated development’ of Sinai. Its prescriptions have not materially affected core livelihoods: that was accomplished by the Israeli military occupation and the sedentarization it entailed. Bedouin inequality is produced today not by conservation but by the commercial development of Sinai, which excludes them; by the Egyptianization of Sinai, which marginalizes them; and by the securitization of Sinai, which controls them - all with scant regard for environmental protection. Paradoxically, the recent self-assessments of performance by St Katherine staff described in Chapter 5 not only ignored the impact of securitization, but awarded high scores for PA-community relations, a finding sadly belied by many of my respondents. Brockington and Holmes (2010) warn against reliance on assessing PA effectiveness using self-referential tools (Dudley et al 2008), or making comparisons that appear to demonstrate

240 Using RAPPAM methodology (Rapid Assessment and Prioritization of Protected Area Management - an IUCN tool).
that communities benefit from PAs while masking or ignoring the differential distribution of benefits they provide (Wittenmyer et al 2008).

That said, it important to remark how obscure these points may look, if they are visible at all, to hard-pressed practitioners at local level. I have used the powerful logic of Ferguson’s ‘Anti-Politics Machine’ to shed light on the contradictions of Egyptian conservation, emphasizing the instrumental nature of development in producing political outcomes; but I have perhaps not stated clearly enough that these outcomes, in Ferguson’s analysis, are unintended by its practitioners. I know of no-one in the Protectorate today who does not strive to deliver its brief despite mountainous difficulties. Hopelessly under-resourced, they are still charged with the town’s solid waste management, sewage treatment, visitor management on the Mountain, and soon the arrival of thousands of cubic metres per day of Nile water, potentially bearing water-borne disease and dramatically altering the desert ecology. PA staff may ignore the social impact of conservation policy on Bedu, but they are themselves, in large measure, also its victims. It will take a sea-change in thinking at the highest political level to change this; a development that is nowhere in sight under the current administration.

Political ecology revisited

I suggested at the outset that each of the four theses postulated by political ecology to account for people’s experience of environmental change was visible to some extent in St Katherine. They have proved accurate predictors in all respects but one. Land degradation for which marginal people are blamed has been seen in its larger political and economic context; environmental conflict has been shown to be part of a larger struggle albeit not so much on race and class as on ethnic and national identities; environmental conservation efforts, usually viewed as benign, have been shown to have pernicious effects and sometimes to fail as a result. ‘Environmental protection’ and altered livelihoods, however, while engendering resistance, have clearly not fostered political struggle and social upheaval in South Sinai: the political milieu is too strictly controlled to permit grassroots environmental movements to coalesce.

The need to view such situations from a fully-informed perspective is self-evident. No good doctor writes a prescription without taking a full medical history of the patient; yet conservation and development measures may be prescribed without reference to their political background. They are thus, as Ferguson (1994) amongst others has shown, as likely to kill as cure. The key lesson from this study, emerging from its political ecological focus, is that, in St Katherine as elsewhere, conservation does not happen in a vacuum. It can have little hope of effectiveness - and may indeed do more harm than good - if it ignores the political context of its interventions.
Commentators have called for a better understanding between natural and social science (eg Brosius 1999, 2006; Adams & Hutton 2007) to bridge this gap, and in the contested arena of St Katherine no call could be more apposite. Abu Lughod (1993:5) notes that the anthropologist must recognize the power dynamic in the relation between self and Other, remaining aware of domination in the society being described and in the relationship between writer and subject. This prescription could and should apply equally to conservationists in environments that include people; but in Katriin, evidence of this sort of reflexivity among even the most sympathetic conservationists has been limited. Natural scientists tend not to see power relations as their concern, as if unaware that, as Robbins puts it (2004:11), their apparently apolitical approach is itself inherently political. This leads to gaps in perception that may critically affect conservation outcomes. This study suggests (with many others) that if rhetoric about indigenous people is to mean anything, or to have any positive effect, it cannot neglect the political context of the practice it informs. Conservationists must seek to understand not only indigenous knowledge, but the circumstances in which it is located. In the spirit of Brosius’ (1999) comment that critique is an important part of environmental praxis, I offer this view, gingerly, to colleagues in St Katherine.

Finally, this study has added a new item to my ‘personal inventory’. Robbins (2004: 13) characterizes political ecology as ‘something people do’ - a research effort to expose the forces at work in ecological struggle, document changing livelihoods and propose viable alternatives. He notes that ‘ongoing, small-scale empirical research projects conducted by countless NGOs...probably comprise the largest share of work in political ecology.’ It seems I was a political ecologist without knowing it. The research questions with which this study started sprang from practical rather than academic enquiry: I wanted to understand what was happening in South Sinai so that the Community Foundation could work in ways that the Bedu would value. The answers it has provided have allowed us, on a very small scale, to start that process; but they have left us equally under no illusions as to the nature and scale of our task. If it helps us understand, as Egyptians, Bedu and international actors, how we might act together in, with and for South Sinai’s bedouin communities - insha’allah! - this study will have achieved its unstated but most important aim.
Endnote

July 2007: St Katherine. I’m in the bedouin grocery store, and young ‘Abdo is quizzing me about my research as he packs up my coffee and eggs. What do you want to find out about, Doktora?’ I want to know what’s important to Bedu nowadays,’ I tell him. I ask people how bedouin life has changed since they were children’. Oh, it’s changed a lot!’ he volunteers. In the old days it was no good - everyone lived in tents, and there was no electricity. Now it’s much better. There are cars and TV, and you can buy anything you want in the shops.’ Really?’ I tease him. That’s not what most people say. Most people tell me it was better in the old days. Just yesterday someone said: ‘We were hungry back then, but we were free.’ Abdo’s face falls and he looks thoughtful. ‘Ah well, Doktora,’ he says. Everything has its price.’
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Appendix 1: Tribal structure of the Jebeliya

<table>
<thead>
<tr>
<th>Clan (Rub3)</th>
<th>Lineage (3a’ela)</th>
<th>Location and other notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al Waheebaat</td>
<td>Abu Heib</td>
<td>Town of St Katherine; the original lineage of the clan</td>
</tr>
<tr>
<td></td>
<td>Abu Kersh</td>
<td>Town of St Katherine; Wadi Nasb</td>
</tr>
<tr>
<td></td>
<td>Al Hanaini or Lehnani</td>
<td>Wadi Feiran, Wadi Esba’ela</td>
</tr>
<tr>
<td></td>
<td>Abu Sa’id</td>
<td>Town of St Katherine; Abu Geefa</td>
</tr>
<tr>
<td>Al Hamayda</td>
<td>Abu Hegaazy</td>
<td>A few in the town of St Katherine</td>
</tr>
<tr>
<td></td>
<td>Abu Msa’id</td>
<td>Town of St Katherine</td>
</tr>
<tr>
<td></td>
<td>Al Saana’</td>
<td>Wadi Esba’ela and El RaHa</td>
</tr>
<tr>
<td></td>
<td>Al Hashash</td>
<td>Town of St Katherine</td>
</tr>
<tr>
<td></td>
<td>Abu Sa’eda</td>
<td>Town of St Katherine</td>
</tr>
<tr>
<td>Awlad Seliim</td>
<td>Abu Meghananim</td>
<td>Tarfa, Wadi Feiran, Wadi Esba’ela: the original lineage of the clan</td>
</tr>
<tr>
<td></td>
<td>Abu Ra’af</td>
<td>Town of St Katherine</td>
</tr>
<tr>
<td></td>
<td>Abu Ghanem</td>
<td>Wadi Esba’ela, Abu Seila</td>
</tr>
<tr>
<td></td>
<td>Abu ‘Abeid Allah</td>
<td>Wadi Esba’ela</td>
</tr>
<tr>
<td></td>
<td>Abu El Heem</td>
<td>Town of St Katherine; Tarfa, Wadi Feiran; founded by two brothers</td>
</tr>
<tr>
<td></td>
<td>El Darawsha (Abu Mdarwash)</td>
<td>Wadi Esba’ela, El Zeituna</td>
</tr>
<tr>
<td></td>
<td>Abu Muqbel</td>
<td>Town of St Katherine; Wadi Esba’ela; founded by two brothers</td>
</tr>
<tr>
<td></td>
<td>Abu Mes’aed</td>
<td>Town of St Katherine; Wadi Esba’ela; founded by two brothers</td>
</tr>
<tr>
<td></td>
<td>El ‘Oreir (El-Oreirat)</td>
<td>Bir Haroun (El Kharazein); founded by two brothers</td>
</tr>
<tr>
<td></td>
<td>El Aqra’</td>
<td>Bir Haroun (El Kharazein)</td>
</tr>
<tr>
<td>Awlad Gendi</td>
<td>Abu Mas’oud (or Msa’da)</td>
<td>Town of St Katherine (El Shameia): this clan came from Egypt rather than Wallachia</td>
</tr>
<tr>
<td></td>
<td>Lef’aali</td>
<td>Abu Seila</td>
</tr>
<tr>
<td></td>
<td>Abu G’te5</td>
<td>Abu Seila</td>
</tr>
<tr>
<td></td>
<td>Duqunya</td>
<td>Abu Seila: ‘the bearded ones’, after the long beards they used to grow, like the monks</td>
</tr>
<tr>
<td></td>
<td>Abu ‘Elwan</td>
<td>Abu Seila</td>
</tr>
<tr>
<td></td>
<td>Abu Kershian</td>
<td>Abu Seila</td>
</tr>
</tbody>
</table>

1.1: 1983 structure updated ca. 2002

Source: Zalat & Gilbert (2008: 28-31). 'Using Rabinowitz' (1983) family tree as a basis, Zalat and Gilbert amended and updated its information following conversations with Jebeliya leaders and other local people, adding the location of traditional landholdings and settlements and other notes.
### 1.2: 2009 revised structure, showing *nabaz* subdivisions

<table>
<thead>
<tr>
<th>Rub 3</th>
<th>3a’ilā</th>
<th>nabaz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waheibat</td>
<td>1 Abu Heib</td>
<td>Abu Tarawah</td>
</tr>
<tr>
<td></td>
<td>2 Abu Kersh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 Al Hanaina</td>
<td>Le Hnanie</td>
</tr>
<tr>
<td></td>
<td>4 Abu Sa’id</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 Abu Kela</td>
<td>Awlaad Ghnaiman</td>
</tr>
<tr>
<td>Hamayda</td>
<td>6 Abu Tabikh</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 Abu Hejaazy</td>
<td>Abu Ghalaba</td>
</tr>
<tr>
<td></td>
<td>8 Abu Msa’id</td>
<td>Abu Bredik</td>
</tr>
<tr>
<td></td>
<td>9 Al Saana’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 Al Hashash</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 Abu Sa'eda</td>
<td></td>
</tr>
<tr>
<td>Awlaad Seliim</td>
<td>13 Abu Zidan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14 Abu Mghanim</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 Abu Raf’a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 Abu Ghanaim</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17 Abu ‘Albaid Allah</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18 Abu El Heem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19 El Darawsha/Abu Mdarwash</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 Abu Migbil</td>
<td>Nada</td>
</tr>
<tr>
<td></td>
<td>21 Abu Mes’aad</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22 El ‘Oreir</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23 El Agra‘</td>
<td></td>
</tr>
<tr>
<td>Awlaad Jindi</td>
<td>24 Abu Msa’oud Msa’oud</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 Le’fali</td>
<td></td>
</tr>
<tr>
<td></td>
<td>26 Abu J’es</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27 Dugouny</td>
<td>Jatesh</td>
</tr>
<tr>
<td></td>
<td>28 Abu ‘Elwan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29 Abu Krishan</td>
<td></td>
</tr>
</tbody>
</table>

Starting from the basis of Zalat & Gilbert’s revised table, Mohammed Khedr and I produced this one from information obtained from our interviewees and from conversations with people especially interested in genealogy and bedouin history. Within the Waheibaet we identified two new 3a’ilāt not recorded by Rabinowitz or Zalat & Gilbert (Abu Kela and Abu Tabikh) and a new 3a’ilā (Abu Zidan) in Awlaad Seliim. Although Abu Kela and Abu Zidan are mentioned by Perevolotsky, Abu Tabikh has not previously been recorded.

Sorting out the subdivisions between 3a’ilā and *nabaz* is a serious headache; few people, even group members themselves, find it easy to categorize them. Outside the Jebeliya the situation is worse still, as most tribes have far more *rubū3* as well as multiple sub-divisions and higher alliances. Add the fact that each name usually has at least two forms, which may look and sound very different, and one is left with Lavie’s description of Mzeina tribal structure as ‘an anarchy without any order...total chaos’ (1990: 244).
Appendix 2: Questionnaire

Information sheet & consent form

Who am I and why am I here? My name is Hilary Gilbert. I'm English and belong to the University of Manchester in England, but I've lived in Egypt for the past two years. My husband and our friend (Dr Francis Gilbert and Dr Samy Zalat) have worked here for 20 years as scientists, and I have come with them on many visits to St Katherine. We have made many bedouin friends and have a long-term attachment to this community. We have recently set up a Community Foundation for this area with Faraj Fox, to raise funds to support activity that will benefit local people. This work is just beginning.

My aim is to get a picture of how the Jebeliya people in St Katherine PA live today, their work and problems and priorities. This has been done before by different people for different reasons, but there's no good up-to-date picture.

Why am I asking you? The reason I'm coming to see you is that in the time of your father and grandfather your family had an orchard and/or a flock, and they helped provide information about how people lived, the kind of things they bought, and the importance of those traditional livelihoods then. I'm interested in knowing about what changes have happened in people's lives and environment since then, and what you feel the most important issues are now. I hope to ask these questions to men and women in the family, older people and younger people, to see if they have different views about what is most important. (Are you happy for me to continue?)

How long will it take? If you're happy, the interview will take between half an hour and one hour for each person. There are a few extra questions for the head of the household, so that will take the longest. Mohammed will help translate your answers for me because - as you can hear!! - I am still a beginner in Arabic.

What are the questions about? The questions are about things like your life and work, what your household buys, and what you think is important. There is nothing political or sensitive about them. I am completely independent of any kind of official agency here, except the Community Foundation. If you wish I am happy to leave a copy of the questionnaire here, as well as this information sheet, so you can look at it later on.

Will anyone know what you've said? Everything you say will be confidential; nothing will be linked to you as an individual (for example when I write up what people tell me I won't say: Ahmed, Mohammed and Mahmoud keep goats but Faraj and Salah do not. I will say 60% of families keep goats, but 40% do not; or, most young men thought this, but some older women thought that, etc.). (Is that okay?) Of course you don't have to answer any question you don't like, and if you don't feel comfortable you can stop at any time - no problem.

How will I use the information? I will use the information to help the Foundation work on things that local people think are the most important; and I will also want to write it up for my University. I will be happy to share anything I write with people who take part, to make sure I've got a true picture. Once I've finished I'll ask Sheikh Mohammed the best way to do this.

Request for consent

If you are happy to take part, there are two things I'd like to ask your permission for:

First, I'd be grateful for permission to repeat what you say, but without using your name. (Is that okay?)

Secondly, I'd be grateful for your permission to record our interview in case I miss anything important. The information will be locked up with my computer where only I can get it. (Is that okay?)

Do you have any questions for me? Is there anything you're not sure about? Signed: Hilary Gilbert
St Katherine Questionnaire

Thank you very much for agreeing to take part. I’d like to confirm that you’re happy for me to quote you anonymously and to record our interview as I explained just now (-Yes?). I will ask the questions, and Mohammed will translate your longer answers for me so I can write them down – okay?

I have three sets of questions: about yourself, about work, and about life here in ..................

First of all:

1.1 What tribe are you from?.................................................................................................................

1.1a What’s your full name? .........................................................................................................................

1.1b From what rub3?.................................................................................................................................

1.1c From what 3a’ela?.................................................................................................................................

1.1d Are you the head of the household? (If not, what relationship?):.......................................................

1.2 How old are you?.....................................................................................................................................

1.3 And you are married? Y N W D

1.4 How many wives or families do you have? Y N

1.4a If not, how many do you hope to have? .............................................................................................

From which other tribe(s)?.........................................................................................................................

Married people

2.1a How many children do you have?............ b) Boys............ c) Girls,.............

2.1b How old is the oldest?.................................

2.1c How old is the youngest?.............................

2.2 About how long have you been married?..............................................................................................

Young & younger married people

2.3a How many children do you hope to have? ............................................................................................

2.3b What’s the reason for your answer?........................................................................................................

Now I’d like to ask you about life here in ..............................................................................................

8.1 What do you like best about living here?..............................................................................................

8.2 Tell me a bit about what life was like here when you were a child. Are things the same now or have they changed?..............................................................................................................................

8.3c What do you think are the main environmental problems for this community now?.........................

8.3d This village is/isn’t inside the St K PA, yes? What difference does that make to your life? (for example, does it help you or provide any services?)

8.3e How do you look after the environment round here? What ways do you have of keeping things in good condition?

8.4 Do you think life is better for Bedouin here or in St Katherine? What makes you say that?

7.1 Do you keep a flock? Y N

(if no, go to 7.6)

7.1a How many goats?.................................

7.1b How many sheep?.............................................................................................................................

7.2 Do you have any other livestock?...........................................................................................................!

7.3a What do you do if an animal needs help – for example if it is sick?..........................................................

7.3b In what areas do you graze the animals? (Do you use this area all year round?)..............................

7.3c Are there enough plants for the animals or do you need to buy barseem? Just in winter or all year round?..........................................................................................................................................................

7.4 Do you produce the selected flock (eg milk, wool, kids or lambs) ?...........

7.5a Compared with when you were young, would you say the flock makes an important contribution to your household these days? Y N

7.5b What makes you say that?......................................................................................................................

People with no flock

7.6a Did you or your family ever have a flock in the past? Y N

7.6b What made you (pl) give up your animals?...........................................................................................

7.7a Would you consider keeping animals again in future? Y N M

7.7b Why is that?............................................................................................................................................

6.1a Do you have a garden or palm trees? Y N

If No

6.7a Did you or your family have a garden or palms in the past? Y N

6.7b What made you give up your garden (or palms)?..................................................................................

If yes

6.3b Do you cultivate it actively? Y N

(if no go to 6.8)

6.2a How far away is it? (minutes/hours walk)............................................................................................

6.2b Roughly how big is it? (in feddans)....................................................................................................

6.3 What are the main things you (pl) grow in it?..........................................................................................

6.4 How big is it? (in feddans).....................................................................................................................

6.5 What do you do with the produce from the orchard?..............................................................................

6.6a What made you give up your garden (or palms)?..................................................................................

6.6b Did you or your family have a garden or palms in the past? Y N

6.7a What made you give up your garden (or palms)?..................................................................................

6.7b What made you give up your garden (or palms)?..................................................................................

6.8a Why do you no longer cultivate the garden?.........................................................................................

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6.8b Is there still any produce from the garden?                  Y   N

/ Yes

6.5 bis What do you do with the produce?.................................................................

6.6a Compared with when you were young, would you say the orchard makes an important contribution to your household these days?    Y   N

6.6b What makes you say that?...........................................................................................

Now I’d like to ask you about work.

5.3a What is your main work now?.....................................................................................

If in paid work

5.2a Who do you work for?..................................................................................................

5.2b Is this work regular or casual?..................................................................................

5.3 Have you done any other kinds of work before this (say, in the past ten years)?...........

5.4a What kind of work do you like best?...........................................................................

5.4b Why is that?................................................................................................................

5.5a There are lots of projects working in South Sinai now, aren’t there? What kind of projects or organizations work around here? Are they helpful? In your opinion, what kind of project would help people most around here?

Now I’d like to ask you a few things about yourself and your family.

First - education

3.1 Did you go to school?               Y   N

/ Yes

3.2a How many years did you spend in school?.........................................................

3.2b At roughly what age did you leave?.................................................................

3.4 Do you read and write now?         Y   N   Occ

Older people

3.5a Did your sons go to school?        Y   N

3.5b Did your daughters go to school?   Y   N

Younger people

3.6c Do you think your children will go to secondary school?               Y   N

3.7a What do you think young Bedu should learn now in order to have a good life?

Now I’d like to ask you a bit about health

4.1 What are the most important health issues that affect men/women of your age here?................................................................................................................................

Women if poss

4.2 What are the most important things that affect children’s health here?....................

4.3 How many times have you yourself been ill in the past year?.................................

4.4a When you are ill how do you deal with it?.........................................................

4.4b Do you use medicinal plants?                                                  Y   N

Women if poss

4.5a When you or your daughter has a baby, where do you go to give birth?..............

4.5b When women give birth at home, who comes to help?...........................................

4.6a Has any woman in this family died in childbirth in the past ten years?  Y   N

(or before that)?)...........................................................................................................

4.7a Has any woman in this family lost a baby or child under 5 in the past ten years? Y   N

(or before that)?)...........................................................................................................

4.8a Has any woman in this family given birth to a baby with handicaps such as being deaf, blind, or with club-foot in the past ten years?  Y   N

(or before that)?)...........................................................................................................

Thank you - this is very helpful.

Finally I’d like to ask you two things:

8.4a If you could do one thing to make (.............................) a better place to live in, what would it be?..........................................................................................................

8.4b If you could make one change that would make life better for you, what would it be?

Thank you so much for helping!
Household survey questions

Now I have a few last questions for the Head of the Household - but if someone else usually does the weekly shopping, it would be helpful if they could join us.

9.0 First, how many people live in this (your first) household?

9.0a: Number of people.................................................................

9.0b Does anyone live in your house apart from your (first) wife and children? If so, who are they?.................................................................

9.1a Do you or the people who live in your home own any of the following items?

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooking stove</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fridge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliable/long-distance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dodgy/local only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pickup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile phone</td>
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<td></td>
</tr>
<tr>
<td>Telephone (landline)</td>
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</tr>
<tr>
<td>Radio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satellite dish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washing machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sewing machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well (water access)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tanker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity supply</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reliable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patchy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Any other item they consider important?)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are some things that everyone buys regularly - rice, sugar, oil, tea etc.

But which of these other items do you buy regularly?

9.3a do you buy them regularly, sometimes or never?

<table>
<thead>
<tr>
<th>Item</th>
<th>Regularly</th>
<th>Occasionally</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh fruit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh meat/chicken</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yogurt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coca cola</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coffee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eggs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tinned vegetables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tinned meat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powdered milk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin cream</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine/tablets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toothpaste</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.3b Is there anything you need to buy that you can't get here?.................................

9.3c On average how much do you spend on feeding your family each week?

Amendments

In the course of data collection I made some structural alterations to the questionnaire:

1. One of my original questions asked how many children people had or hoped to have. Only when I noticed the consistently lower values returned by younger people did I realise that I could track historical trends in family size if I also asked how many siblings they had. I started this halfway through the Jebelia sample.

2. When the study expanded in 2008 I asked people in rural settings whether they would prefer living there or in their nearest urban centre, and for what reason. However, I had not asked people in Katriin whether they would prefer to live anywhere else.

3. I did not ask people in Katriin how they protected the environment, but several people volunteered the information. I therefore built in the question to the expanded study.

4. I did not ask people outside Katriin about infant disability. This is a sensitive question; disability still carries a stigma, and in more conservative areas where people were less used to strangers I felt uncomfortable asking it.
Yusriya ‘Abd el Baset (2005) found that bedouin children in St Katherine village no longer knew about plants. This has not been my experience. I reproduce here a drawing produced spontaneously by an eleven year-old girl from one of the few ‘Awlaad Sa3i3id families in the area. She regularly visits me with her siblings and Jebeli friends - about ten children - all keen to draw and look at books. ‘Na3ima’ produced this drawing of plants in her surroundings, most clearly recognizable, naming rosemary (zanzabiil), oregano (za’atar), cactus (subbaar), figs (tiin) and a young thorn tree (showka - Acacia sp). Her six-year old brother has drawn complex scenes including ibex, camels and birds. I was earnestly (and accurately) instructed by a ten-year old boy how to plant the cuttings I had been given by a neighbour. These things do not refute ‘Abd el Baset’s findings, but they do provide contrasting evidence.
Appendix 4.1: Interview questions and variables deduced from them. Numbers indicate variables used in the Principal Components Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Question asked, and variables derived from answers</th>
<th>units</th>
<th>scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>date of interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>name of location of house</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tribe</td>
<td>name of tribe of respondent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tribe of spouse</td>
<td>name of tribe of respondent’s spouse (if any)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rub3a</td>
<td>clan of tribe of respondent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>St Katherine?</td>
<td>in St Katherine?</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Name</td>
<td>three names of respondent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3a’ila</td>
<td>lineage of respondent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. KmDistance_centre</td>
<td>distance from the centre of St Katherine town</td>
<td>km</td>
<td></td>
</tr>
<tr>
<td>2. JeepMins_offroad</td>
<td>distance by jeep</td>
<td>mins</td>
<td></td>
</tr>
<tr>
<td>3. Nsex</td>
<td>gender of respondent</td>
<td>male</td>
<td>female</td>
</tr>
<tr>
<td>4. age</td>
<td>age of respondent (either reported or estimated)</td>
<td>years</td>
<td></td>
</tr>
<tr>
<td>5. N_status</td>
<td>marital status of respondent</td>
<td>unmarried</td>
<td>married</td>
</tr>
<tr>
<td>6. Nnhholdwives</td>
<td>number of wives in household (either respondent or husband)</td>
<td>(number)</td>
<td></td>
</tr>
<tr>
<td>7. Noblings</td>
<td>number of siblings</td>
<td>(number)</td>
<td></td>
</tr>
<tr>
<td>8. Nsiblings</td>
<td>number of children (sons, daughters &amp; their ages)</td>
<td>(number)</td>
<td></td>
</tr>
<tr>
<td>9. Nchildren</td>
<td>number of children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Npercep_insidePA</td>
<td>does the respondent believe s/he lives within the St Katherine Protectorate?</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>11. NInsidePA_actual</td>
<td>is the respondent actually living within the St Katherine Protectorate?</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>12. Nchange_GoodBad</td>
<td>overall assessment</td>
<td>very bad</td>
<td>bad</td>
</tr>
<tr>
<td>13. Nchange_Economic</td>
<td>mentioned a socio-political issue</td>
<td>bad</td>
<td>neutral</td>
</tr>
<tr>
<td>14. Nchange_BedSoc</td>
<td>mentioned an economic issue</td>
<td>neutral</td>
<td>good</td>
</tr>
<tr>
<td>15. Nchange_BedState</td>
<td>mentioned an issue to do with the Egyptian State</td>
<td>neutral</td>
<td>good</td>
</tr>
<tr>
<td>16. Nchange_Personal</td>
<td>mentioned a personal issue</td>
<td>neutral</td>
<td>good</td>
</tr>
<tr>
<td>17. Nenvprob_water_EnvEc</td>
<td>mentioned water as an environmental/economic issue</td>
<td>very bad</td>
<td>bad</td>
</tr>
<tr>
<td>18. Nenvprob_waterQ_Health</td>
<td>mentioned water quality as a health issue</td>
<td>very bad</td>
<td>neutral</td>
</tr>
<tr>
<td>19. Nenvprob_D_Upt</td>
<td>mentioned a development issue</td>
<td>very bad</td>
<td>neutral</td>
</tr>
<tr>
<td>20. Nchange_BedState</td>
<td>mentioned an issue to do with the Egyptian State</td>
<td>neutral</td>
<td>good</td>
</tr>
<tr>
<td>21. Nchange_Personal</td>
<td>mentioned a personal issue</td>
<td>neutral</td>
<td>good</td>
</tr>
<tr>
<td>22. NPA_assess_pos_neg</td>
<td>overall assessment</td>
<td>strongly</td>
<td>-ve</td>
</tr>
<tr>
<td>23. NPA_imp_env</td>
<td>impact on the environment</td>
<td>strongly</td>
<td>-ve</td>
</tr>
<tr>
<td>24. NPA_imp_serv</td>
<td>impact on services</td>
<td>strongly</td>
<td>-ve</td>
</tr>
<tr>
<td>25. NPA_neg_contrast_JG</td>
<td>volunteered view of today relative to John Grainger’s time</td>
<td>strongly</td>
<td>-ve</td>
</tr>
</tbody>
</table>

what is the best thing about living here ?
how has bedouin life changed since you were a child ?
what are the environmental problems now? How have they changed over 10 years ?
how does the St Katherine Protectorate affect you, if at all ?
what environmental protection measures exist ?
Nbedouin_conserv_present
Bedu conserve the environment themselves
no mention

Nvolunteer_env_at_risk
volunteered the environment is at risk
no yes

26 NPA_Eg_Ref
referred to Egyptians vs Bedu
no yes

Nprefer_home
overall preference for home
prefer StK neutral prefer home

NEcon_Develop
mention economic/developmental reason for preference
no yes

Nsocial_political
mention socio-political reason for preference
do you have a flock?

Nkeep_flock
any
no yes

Ngoats
number of goats
(number)

Nsheep
number of sheep
(number)

Ncamels
number of camels
(number)

Nother
other livestock
what happens if the animals fall sick?

N_PAVet_vs_trad
spectrum from self-treatment to calling in the PA vet service
self hakim PA vet both

Ngrazed_outside
at home or outside
at home taken out

Nbarys_in_feed
source of feedstuff (barseem = purchased alfalfa)
outside both barseem

Nimpct_Orch_to_Hhold
mentioned as an important contributor to household resources
is the flock an important component of the household life

N still_own_orchard_or_palms?
ownership
no yes

Ngardens_absent_present_distant
location of gardens owned
none local distant

Ncultivate_actively?
do you still cultivate your garden actively?
no yes

Nyers_since_orchard
years since orchard cultivated actively
(number)

NimpctOrchard_to_Hhold
importance of orchard produce
what is grown in the orchards, and is the produce important to you

N done paidwork
done paid work now or in the past 10 years
no yes

N Regular_wk
has regular work
no yes

N Sheikh
works as a Sheikh
no yes

N Govt-based
government-based work
no yes

N Tourism
tourism-based work
no yes

N Pvt_retail_mfrg
private retail or manufacturing
no yes

Namplified
handicrafts or other skilled work
no yes

N unskilled_work
unskilled work
no yes

N yrs since_orchard
years since orchard cultivated actively
(number)

NimpctOrchard_to_Hhold
importance of orchard produce
what is grown in the orchards, and is the produce important to you

Ndone paidwork
done paid work now or in the past 10 years
no yes

N Regular_wk
has regular work
no yes

N Sheikh
works as a Sheikh
no yes

N Govt-based
government-based work
no yes

N Tourism
tourism-based work
no yes

N Pvt_retail_mfrg
private retail or manufacturing
no yes

N amplified
handicrafts or other skilled work
no yes

N unskilled_work
unskilled work
no yes

what was the best work you ever did, and why?
are there any projects that help people or provide work in this area?
what sort of projects would help the community in the future?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>Agric WATER</td>
<td>mentioned water / agriculture</td>
<td>no</td>
</tr>
<tr>
<td>49</td>
<td>Prof</td>
<td>mentioned professional training/education</td>
<td>no</td>
</tr>
<tr>
<td>50</td>
<td>Trad tribal</td>
<td>mentioned traditional tribal occupations or projects such as handicrafts</td>
<td>no</td>
</tr>
<tr>
<td>51</td>
<td>Other</td>
<td>other kinds of projects</td>
<td>no</td>
</tr>
<tr>
<td>52</td>
<td>Doesn't know</td>
<td>mentioned they had no opinion</td>
<td>no</td>
</tr>
</tbody>
</table>

did you go to school? if so, for how long?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>Attended school</td>
<td>attended school</td>
<td>no</td>
</tr>
<tr>
<td>54</td>
<td>Yrs school</td>
<td>number of years of schooling (years)</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Functionally literate</td>
<td>functionally literate now</td>
<td>no</td>
</tr>
</tbody>
</table>

are your children going to school? at what level?

<p>| | | | |</p>
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<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>N1ySchool_avail_now</td>
<td>primary school available now</td>
<td>no</td>
</tr>
<tr>
<td>57</td>
<td>N2ySchool_avail_now</td>
<td>secondary school available now</td>
<td>no</td>
</tr>
<tr>
<td>58</td>
<td>N1ySchool_avail_when_children_young</td>
<td>primary school available when children were young</td>
<td>no</td>
</tr>
<tr>
<td>59</td>
<td>sons_uned</td>
<td>any sons uneducated?</td>
<td>no</td>
</tr>
<tr>
<td>60</td>
<td>girls_uned</td>
<td>any daughters uneducated?</td>
<td>no</td>
</tr>
<tr>
<td>61</td>
<td>sons_1y_ed</td>
<td>any sons at primary school now, or hope to in the future</td>
<td>no</td>
</tr>
<tr>
<td>62</td>
<td>girls_1y_ed</td>
<td>any daughters at primary school now, or hope to in the future</td>
<td>no</td>
</tr>
<tr>
<td>63</td>
<td>sons_2y_ed</td>
<td>any sons at secondary school now, or hope to in the future</td>
<td>no</td>
</tr>
<tr>
<td>64</td>
<td>girls_2y_ed</td>
<td>any daughters at secondary school now, or hope to in the future</td>
<td>no</td>
</tr>
</tbody>
</table>

what should young Bedu learn in order to live well in future?

<p>| | | | |</p>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>65</td>
<td>Neducation_per_se</td>
<td>mentioned education is good for its own sake</td>
<td>no</td>
</tr>
<tr>
<td>66</td>
<td>Nstudy_for_work</td>
<td>mentioned education is important for future employment chances</td>
<td>no</td>
</tr>
<tr>
<td>67</td>
<td>N_Tourism</td>
<td>mentioned education to get jobs in tourism</td>
<td>no</td>
</tr>
<tr>
<td>68</td>
<td>Nhern_herb</td>
<td>mentioned education for traditional work in gardens and herding</td>
<td>no</td>
</tr>
<tr>
<td>69</td>
<td>N_heritage</td>
<td>mentioned education to learn Bedouin way of life</td>
<td>no</td>
</tr>
<tr>
<td>70</td>
<td>N_religion</td>
<td>mentioned importance of religious education for a moral life</td>
<td>no</td>
</tr>
<tr>
<td>71</td>
<td>Nlangs</td>
<td>mentioned importance of learning languages</td>
<td>no</td>
</tr>
<tr>
<td>72</td>
<td>NTech_skills</td>
<td>mentioned importance of IT skills</td>
<td>no</td>
</tr>
<tr>
<td>73</td>
<td>Ngovt</td>
<td>mentioned education to get secure governmental jobs</td>
<td>no</td>
</tr>
<tr>
<td>74</td>
<td>Nprof_studs</td>
<td>mentioned education to become professionals</td>
<td>no</td>
</tr>
<tr>
<td>75</td>
<td>N_other</td>
<td>mentioned education for other reasons</td>
<td>no</td>
</tr>
</tbody>
</table>

what are the most important health issues of your peer group?

have you had any episodes of illness in the past year?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>77</td>
<td>N_considerthemselves_ill_not_ill</td>
<td>consider themselves to be healthy / ill in general</td>
<td>healthy</td>
</tr>
<tr>
<td>78</td>
<td>NMusculoskeletal</td>
<td>mentioned muscular or skeletal problems</td>
<td>no</td>
</tr>
<tr>
<td>79</td>
<td>NCardioVasc</td>
<td>mentioned cardiovascular problems</td>
<td>no</td>
</tr>
<tr>
<td>80</td>
<td>NKidney_water</td>
<td>mentioned kidney-related problems</td>
<td>no</td>
</tr>
<tr>
<td>81</td>
<td>N_Gastric</td>
<td>mentioned gastrointestinal problems</td>
<td>no</td>
</tr>
<tr>
<td>82</td>
<td>N_Gastric</td>
<td>mentioned problems due to inadequate nutrition</td>
<td>no</td>
</tr>
<tr>
<td>83</td>
<td>NDiabetes</td>
<td>mentioned diabetes</td>
<td>no</td>
</tr>
</tbody>
</table>
84. NRespir_fever mentioned respiratory or fever problems no yes
85. Nautoimmune_hassaessiya mentioned autoimmune or allergy problems no yes
86. Ngynecae mentioned gynaecological problems no yes
87. Neyes mentioned problems with eyes no yes
88. NDental mentioned dental problems no yes
89. NNeurological mentioned neurological problems no yes
90. N_telbeen_inc_other_answers mentioned telbeen (stress, depression, psychosomatic illness) no yes
91. N_drugs mentioned drug-related problems no yes
92. Nill_other mentioned other illnesses no yes

What are the main health problems of children?

93. Nallergies_etc mentioned allergy problems no yes
94. Ncolds_fevers mentioned colds and fevers no yes
95. Nstomach mentioned stomach problems no yes
96. NTees mentioned dental problems no yes
97. Npoorfood mentioned poor food quality no yes
98. Npoorwater mentioned poor water quality no yes
99. Npoor_healthcare_inc_other_answers mentioned poor healthcare no yes

What is the best way to safeguard children's health?

100. NMedicare_vacc mentioned good healthcare and vaccination no yes
101. Ncleanliness mentioned problems of keeping children clean no yes
102. NGoodFood mentioned importance of good quality food no yes
103. Nichalth_other mentioned other important ways no yes

What are your approaches to dealing with illness?

104. Nuse_herbs uses medicinal herbs no yes
105. N_uses_western_med uses western medicine no yes

Where are your children born / delivered?

106. Mat_mort do you know of recent maternal mortality in your family? how frequent? no yes
107. Infant_mort do you know of recent infant mortality in your family? how frequent? no yes
108. Infant_disab have their been cases of infant disability recently in your family? what kind? no yes

What is the one thing that would improve things for the community the most?

109. N_impv_water_envmt mentioned improvement needed in access to water / wells / etc no yes
110. N_impv_housing mentioned improvement needed in housing no yes
111. N_impv_economics mentioned improvement needed in economic prospects no yes
112. N_impv_healthcare mentioned improvement needed in healthcare no yes
113. N_impv_education mentioned improvement needed in education no yes
114. N_impv_job_opps mentioned improvement needed in job opportunities no yes
115. N_impv_Bed_society mentioned improvement needed in bedouin social relations no yes
116. N_impv_BedStat_relats mentioned improvement needed in Bedu-State relations no yes
117. N_impv_doesn't_know mentioned that they did not know no yes
<table>
<thead>
<tr>
<th>No.</th>
<th>Code</th>
<th>Description</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>N_impv_basic_servs_roads_elec_shops</td>
<td>mentioned improvement needed in basic services such as electricity, roads, shops, etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>N_impv_other</td>
<td>mentioned other kinds of improvements needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>122</td>
<td>N_change_nothing</td>
<td>mentioned would change nothing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>N_change_marriage_status</td>
<td>mentioned would change marriage situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>N_change_economic_circs</td>
<td>mentioned would change economic circumstances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>N_change_to_keep_flock_or_garden</td>
<td>mentioned would keep a flock or maintain a garden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>126</td>
<td>N_change_educational_status</td>
<td>mentioned would change educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>127</td>
<td>N_change_health</td>
<td>mentioned would change health status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>N_change_location</td>
<td>mentioned would move location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>N_change_livelihood</td>
<td>mentioned would change way they made their living</td>
<td></td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>N_change_environment_water</td>
<td>mentioned would change water availability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>131</td>
<td>N_change_Jih</td>
<td>mentioned would go on the Haj</td>
<td></td>
<td></td>
</tr>
<tr>
<td>132</td>
<td>N_change_Bed_society_love_eachother_help_others</td>
<td>mentioned would change bedouin social relations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>133</td>
<td>N_change_future_prospects</td>
<td>mentioned would change future prospects of making money</td>
<td></td>
<td></td>
</tr>
<tr>
<td>134</td>
<td>N_change_other</td>
<td>mentioned would change other aspects of their lives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**any other comments?**

HG comments on interview
Appendix 4.2: Principal Components Analysis of the questionnaire

Axes highlighted in red are those considered in the text on pp 191-192. My interpretation is discussed below on p 235.

### Eigenanalysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Eigenvalue</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
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<tbody>
<tr>
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<td>6.18</td>
<td>6.18</td>
</tr>
<tr>
<td>2</td>
<td>7.46</td>
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<td>11.75</td>
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<tr>
<td>3</td>
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<tr>
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<td>23.33</td>
</tr>
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<td>6</td>
<td>3.77</td>
<td>2.82</td>
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<td>8</td>
<td>3.27</td>
<td>2.44</td>
<td>31.33</td>
</tr>
<tr>
<td>9</td>
<td>3.09</td>
<td>2.31</td>
<td>36.04</td>
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<tr>
<td>10</td>
<td>3.09</td>
<td>2.31</td>
<td>36.04</td>
</tr>
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</table>

### Correlations >0.29 between PCA axes and original variables entered into the PCA (both positive and negative)

<table>
<thead>
<tr>
<th>Variable</th>
<th>PCA1</th>
<th>PCA2</th>
<th>PCA3</th>
<th>PCA4</th>
<th>PCA5</th>
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<td>-0.29</td>
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<td>Npoor</td>
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<td>0.64</td>
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<td>-0.33</td>
<td>0.64</td>
<td>-0.32</td>
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<td>Nkilled</td>
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<td>0.28</td>
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<tr>
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<td>0.30</td>
<td>0.30</td>
<td>0.35</td>
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<td>Nlanguages</td>
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<td>0.34</td>
<td>0.36</td>
<td>0.43</td>
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<td>Regular wk</td>
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<td>0.34</td>
<td>0.37</td>
<td>0.43</td>
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<tr>
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<td>0.41</td>
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<td>0.38</td>
<td>0.34</td>
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<td>0.39</td>
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<tr>
<td>Agric WATER</td>
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<td>0.56</td>
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<td>0.43</td>
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<tr>
<td>Ncarnets</td>
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<td>0.56</td>
<td>0.46</td>
<td>0.46</td>
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<tr>
<td>Nsheep</td>
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<td>0.40</td>
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<td>0.47</td>
<td>0.47</td>
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<td>Ncultivate actively?</td>
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<td>0.51</td>
<td>0.71</td>
<td>0.47</td>
<td>0.51</td>
</tr>
<tr>
<td>girls ly ed</td>
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<td>0.34</td>
<td>0.37</td>
<td>0.43</td>
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<tr>
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<td>0.42</td>
<td>0.42</td>
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<td>0.43</td>
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<td>NInsidePA actual</td>
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<td>0.56</td>
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<td>0.56</td>
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<td>Infancer</td>
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<td>0.57</td>
<td>0.57</td>
<td>0.57</td>
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<td>Nbuys in feed</td>
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<td>0.71</td>
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Correlations >0.29 between PCA axes and original variables entered into the PCA (both positive and negative)
(b) Perceptual variables only

**Eigenanalysis**

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<tr>
<th>Component</th>
<th>Total</th>
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<th>Cumulative %</th>
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<tr>
<td>3</td>
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<td>4</td>
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</tr>
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<td>7</td>
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Correlations >0.29 between PCA axes and original variables entered into the PCA (both positive and negative)

**PCA1** | PCA2 | PCA3 | PCA4 | PCA5
---|---|---|---|---
% variance accounted for | 8.3 | 7.3 | 6.6 | 5.6 | 4.8

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<th>Variable</th>
<th>Correlation</th>
<th>Variable</th>
<th>Correlation</th>
<th>Variable</th>
<th>Correlation</th>
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<td>N_ta3baen_inc_other_answers</td>
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<td>N_change GoodBad</td>
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<td>Youth_ed_other</td>
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</tr>
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<td>N_change BedSoc</td>
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<td>N_change Dvpt</td>
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<td>NPA_assess_pos_neg</td>
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<td>Youth_ed_religion</td>
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<tr>
<td>N_change BedSoc</td>
<td>-0.34</td>
<td>Youth_ed_langs</td>
<td>0.33</td>
<td>Npoor_healthcare_inc_other_answers</td>
<td>-0.33</td>
<td>N_change GoodBad</td>
<td>-0.36</td>
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<td>N_change BedSoc</td>
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<td>Youth_ed_heritage</td>
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</tr>
<tr>
<td>Youth_ed_T1skills</td>
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<td>NPA_imp_serv</td>
<td>0.34</td>
<td>Youth_ed_govt</td>
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<tr>
<td>Youth_ed_T1skills</td>
<td>0.33</td>
<td>NPA_imp_env</td>
<td>0.34</td>
<td>N_change Personal</td>
<td>-0.30</td>
<td>Youth_ed_govt</td>
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<td>Youth_ed_govt</td>
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<td>NBestThingsSocioPolitReason</td>
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<td>Youth_ed_prof_studs</td>
<td>0.39</td>
</tr>
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<td>pot_grwth_Tourism</td>
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<td>Youth_ed_Tourism</td>
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<td>Impt_of_orchard_to_Hhold</td>
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<td>Youth_ed_Tourism</td>
<td>0.40</td>
<td>Youth_ed_Handicraft</td>
<td>0.43</td>
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<tr>
<td>Youth_ed_prof_studs</td>
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<td>N_considerthemselves_ill_not_ill</td>
<td>0.57</td>
<td>Youth_ed_prof_studs</td>
<td>0.45</td>
<td>Youth_ed_Handicraft</td>
<td>0.44</td>
</tr>
<tr>
<td>N_change Dvpt</td>
<td>0.44</td>
<td>Youth_ed_Tourism</td>
<td>0.40</td>
<td>Youth_ed_Handicraft</td>
<td>0.50</td>
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<td></td>
</tr>
<tr>
<td>Functionally_literate</td>
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<td>N_change GoodBad</td>
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<td>Youth_ed_Handicraft</td>
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<td></td>
</tr>
<tr>
<td>N_change GoodBad</td>
<td>0.59</td>
<td>Youth_ed_Handicraft</td>
<td>0.44</td>
<td>Youth_ed_Handicraft</td>
<td>0.44</td>
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<td></td>
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</tbody>
</table>
Note on production and interpretation of axes of variation

Each of the axes shown in Appendix 4 has been generated by Principal Component Analysis, of either the whole dataset (p232) or from the perceptual variables only (p233). The variables, as listed in Appendix 4.1 above, were derived from my questionnaire once it had been coded and quantified. PCA generates a sequence of axes representing different combinations of the original variables. Each is statistically independent of all the others (i.e., they are uncorrelated). My original set of many intercorrelated variables has thereby been reduced to a limited set of independent axes, enabling me to see patterns in the data more clearly.

The axes are interpreted by looking at the positive and negative correlations of each one, so as to derive a ‘picture’ from the composite of correlated facts and attitudes which they aggregate. There is a knack to this, and it took me a little while to acquire it. Once I had, a wonderful picture emerged of the diversity of people and their responses to my questions (I have outlined some examples in chapter 3, p69). On any one axis, not all variables contribute usefully to making a picture; indeed, it is impossible to interpret some at all; however, many produce strong impressions of the group of people whose experience they reflect. On axis PCA2 (whole dataset, p 232), for example, we see at one end of the axis people who are negatively correlated with age and livestock-keeping, number of wives and children, and distance from an urban centre: in other words, at this end of the axis we are looking at mostly unmarried, childless young men, almost all of whom probably hail from St Katherine. This end is positively correlated with availability of schools and with being in work, with use of western medicine, with valuing their orchards and active cultivation of them, and with a positive approach to the Protectorate. Interestingly, this urban group is also positively correlated with first-hand family experience of maternal and infant mortality and childhood disability (a glaring paradox that I have barely touched on in my thesis, but to which I intend to return in future). What interests me here is the strong positive correlation in this group - despite their youth, literacy and available work - with a perception of themselves as being ill. I interpret this in Chapter 8 as an effect of constant exposure to the security apparatus, and daily experience of marginalization.

The axis to which I refer in Chapter 8, showing the strength of people’s response to the Protectorate, is perceptual PCA1 (p233), accounting for a full 8.3% of variation in my data on people’s attitudes. Here we see negative views of the Protectorate, its provision of services and impact on the environment, and a negative view of changes to Bedouin life. At the positive end of the axis we see a strong tendency for people to draw a negative contrast between the PA today and under John Grainger’s management. The fact that in addition this group of people tends to see mainly tourism and handicrafts as likely future growth areas (i.e., business as usual, nothing innovative) suggests that they are conservative - likely to be zarrantisas, in fact. On the axis PCA4 in the total dataset (p232) we see a group characterized by distance from an urban centre, who approve of the PA and its services. They are negatively correlated with neurological disorders and depression. Because this is an axis, the reverse is also the case: that those close to urban centres are likely to disapprove of the PA and experience neurological disorders and depression, the statistics here corroborating the findings from my interviews.

Although I have not relied heavily on the results of this type of analysis, I found it extremely helpful in disentangling my huge array of results. It helped me see the wood for the trees. More importantly, as noted in chapter 3, it dispelled any possibility of looking for typical ‘bedouin’ responses. People responded to my questions not as Bedu per se but as crabby old Bedu; as cheerful optimistic Bedu; as wealthy conservative Bedu; as community-minded Bedu; as thrusting, self-seeking young Bedu and so on. It made essentialized interpretations impossible, and that - despite throwing up the definitive finding on attitudes to the PA - has been its key value.

241 or more accurately, negative correlation with a positive view of the Protectorate - not the same, but amounting here to the same thing.
Appendix 5: Weekly purchases by category and their cost, 1960s -2000s

Appendix 5.1 Comparative weekly purchases of two bedouin families in St Katherine 1960s - 2000s

<table>
<thead>
<tr>
<th>Quantities bought (all kg except where indicated)</th>
<th>1960s family (AP) 6 people</th>
<th>Family 1 1970s Father 6 people</th>
<th>2000s Son 6 people</th>
<th>Family 2 1970s Uncle 8 people</th>
<th>2000s Nephew 8 people</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staples</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice</td>
<td>14</td>
<td>3.75</td>
<td>5</td>
<td>12.5</td>
<td>4</td>
</tr>
<tr>
<td>Sugar</td>
<td>8</td>
<td>3.75</td>
<td>10</td>
<td>12.5</td>
<td>5</td>
</tr>
<tr>
<td>Oil</td>
<td>5</td>
<td>1.75</td>
<td>3</td>
<td>0.5</td>
<td>1</td>
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<tr>
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<td>0.25</td>
<td>1</td>
<td>0.5</td>
<td>1.5</td>
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<tr>
<td>Flour</td>
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<td>10</td>
<td>2.5</td>
<td>15.5</td>
<td>28</td>
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<tr>
<td>Lentils</td>
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<td>1.75</td>
<td>5</td>
<td>1.5</td>
<td>1.5</td>
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<tr>
<td><strong>Traditional produce or equivalents</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>12.5</td>
<td>1.5</td>
<td>11</td>
<td>13.5</td>
</tr>
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<td>0</td>
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<td>Eggs (units)</td>
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<td>0</td>
<td>10</td>
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<td><strong>Other items</strong></td>
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<td>7</td>
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Appendix 5.2: Comparative expenditure (in LE) of two Bedouin families in St Katherine 1960s - 2000s

<table>
<thead>
<tr>
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<td>Average family 1960s: 6 people</td>
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</tr>
<tr>
<td>Traditional produce or equivalents</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other items</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family 1 1970s: father, 6 people 2000s: son, 6 people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staples</td>
<td>3.36</td>
<td>10.00</td>
<td>144.50</td>
<td>201.50</td>
<td></td>
</tr>
<tr>
<td>Traditional produce or equivalents</td>
<td>2.96</td>
<td>9.00</td>
<td>91.00</td>
<td>184.00</td>
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</tr>
<tr>
<td>Other items</td>
<td>1.17</td>
<td>3.48</td>
<td>23.50</td>
<td>33.50</td>
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</tr>
<tr>
<td>Family 2 1970s: uncle, 8 people 2000s: nephew, 8 people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staples</td>
<td>7.27</td>
<td>21.66</td>
<td>142.50</td>
<td>217.00</td>
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</tr>
<tr>
<td>Traditional produce or equivalents</td>
<td>0.42</td>
<td>1.26</td>
<td>74.00</td>
<td>146.25</td>
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</tr>
<tr>
<td>Other items</td>
<td>0.00</td>
<td></td>
<td>23.50</td>
<td>33.50</td>
<td></td>
</tr>
</tbody>
</table>


1 converted from IL 87.75 at the 1975 rates
2 converted from IL 175.50 at the 1977 rates
3 converted from IL 77.75 at the 1975 rates
4 converted from IL 155.00 at the 1977 rates
5 converted from IL 30.50 at the 1975 rates
6 converted from IL 61.00 at the 1977 rates
7 converted from IL 189.50 at the 1975 rates
8 converted from IL 379.00 at the 1977 rates
9 converted from IL 11.00 at the 1975 rates
10 converted from IL 22.00 at the 1977 rates

It proved difficult to find enough data to convert money into standardized equivalent values. All 1970s conversions here were from IL into $ and then into LE equivalents as per Perevolotsky. Between 2007 and 2008, while staples rose by between 40-52%, traditional produce increased by about 100%.

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