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# DETACHED HARMONIES



**A study in/on developing social processes of environmental  
education in eastern southern Africa.**

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**DETACHED HARMONIES : A study in/on developing social  
processes of environmental education in eastern southern Africa**

THESIS

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requirements for the Degree of  
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by

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## ABSTRACT

### **DETACHED HARMONIES : A study in/on developing social processes of environmental education in eastern southern Africa.**

Long-term social processes are explored to examine the shaping of environmental education in eastern southern Africa. The study opens with early Nguni social figurations when 'to conserve was to hunt.' It then examines colonial conservation on the frontiers of imperial expansion and developing struggles for and against wildlife preservation. These processes shaped an inversion of earlier harmonies as declining wildlife was protected in island sanctuaries of natural wilderness and 'to conserve was not to hunt.'

Inside protected areas, conservation management struggles shaped new harmonies of interdependence in nature, enabling better steering choices in developing conservation science institutions. Here more reality congruent knowledge also revealed escalating risk which was linked to a lack of awareness amongst communities of 'others' outside. Within continuing conservation struggles, education in, about and for the environment emerged as new institutional processes of social control. The study examines wilderness experience, interpretation, extension, conservancies and the development of an environmental education field centre, a teacher education programme and a school curriculum.

Naming and clarifying the emergent education game for reshaping the awareness and behaviour of others is examined within a developing figuration of environmental education specialists. Particular attention is given to academic and statutory processes shaping environmental education as a field of objective principles and rational processes within modernist continuities and discontinuities into the 1990's. An environmental education field centre, an earth-love curriculum and research on reserve neighbour interaction are examined as political sociologies developing within a declining power gradient and wide ranging socio-political change. Into the present, a final window on a local case of water pollution examines shifting relational dynamics revealing how environment and development education models of process may have little resonance amidst long-term socio-historical struggles and shifting controls over surroundings, others and self.

A concluding review suggests that grounded critical processes engaging somewhat blind control over surroundings may yet reshape self-control and social control amongst others. The trajectories of these clarifying struggles must remain open-ended as sedimented myth and memory is reshaped within ongoing processes of escalating risk and global intermeshing.

*Dedication*

*To the company of others  
whose shoulders  
we stand on  
lean on &  
cry on*

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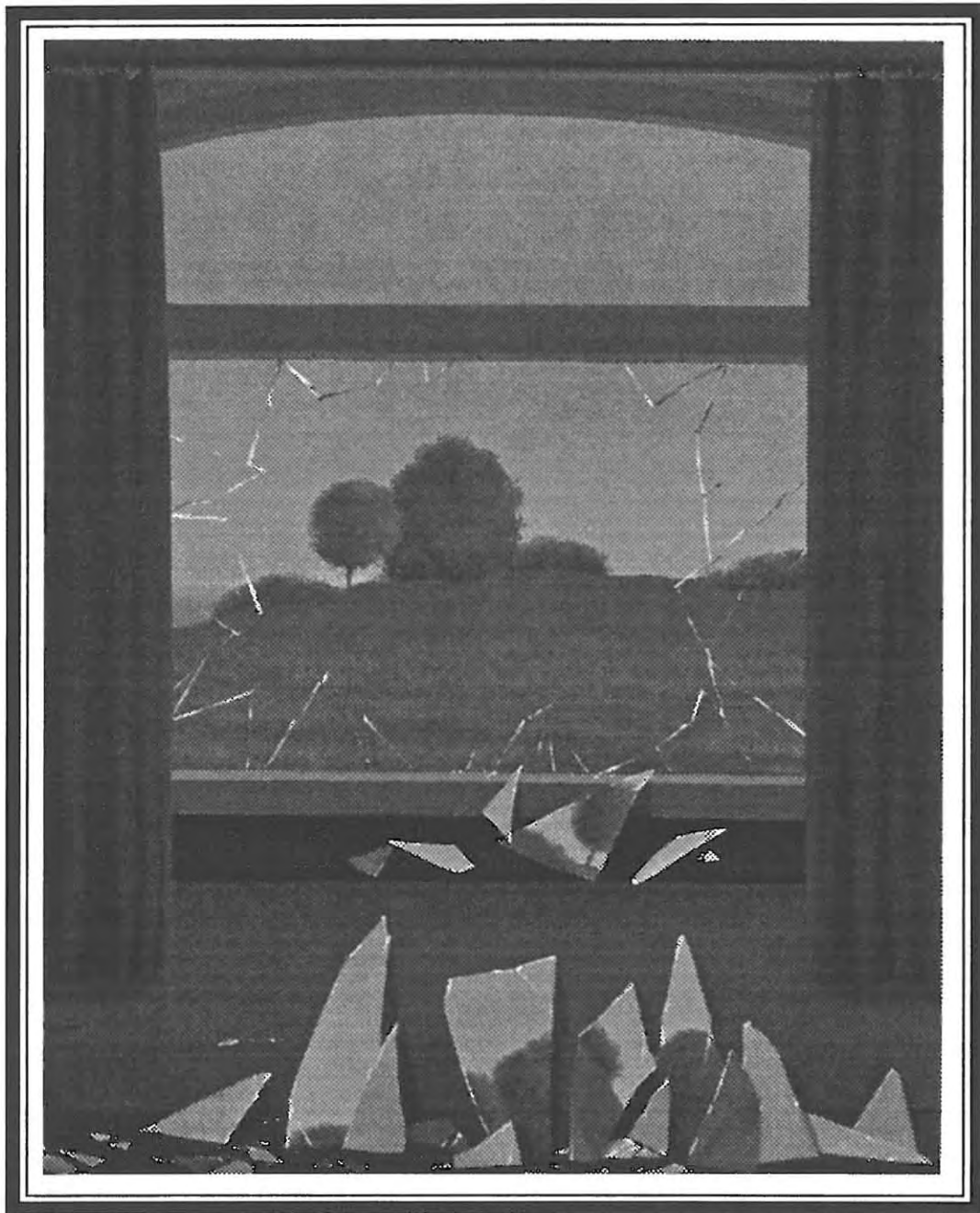
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The Door to Freedom, Rene Magritte (Calvocoressi, 1979:35)

## PREFACE

The cover picture, '*The Human Condition*' and this piece, '*The Door to Freedom*'<sup>1</sup> were painted by Rene Magritte in the 1930's. Of the cover picture Magritte said:

*This is how we see the world... We see it as being outside ourselves even though it is only a mental representation of what we experience on the inside (Schama, 1995:12).*

Norbert Elias sheds some light on how humans, as if in windows on a world apart, began to feel and to see themselves in a world out there and all around. Within open-ended social processes he also identifies developing patterns of change, noting in his study of Europe that:

*The transition from the experience of nature as landscape standing opposed to the observer, from the experience of nature as a perceptual object separated from its subject as if by an invisible wall; the transition from the intensified self-perception of the individual as an entirely self-sufficient entity independent and cut off from other people and things - these and many other phenomena of the time bear the structural characteristics of the same [Renaissance] civilisational shift. They all show marks of the transition to a further stage of self-consciousness at which the inbuilt self-control of the affects grows stronger and reflexive detachment greater, while the spontaneity of affective action diminishes, and at which people feel these peculiarities of themselves but do not yet detach themselves sufficiently from them in thought to make themselves the object of investigation<sup>2</sup> (Elias, 1994 [1939]:211. My brackets and bold).*

This image of developing human experiential struggle and the Magritte pictures of windows in/on<sup>3</sup> our world, are useful, open-ended sensitising concepts for introducing this study of environmental education social processes in eastern southern Africa

Out of earlier social continuities, change and struggle, the story of environmental education opens where conservationists, involved in the stresses of wildlife management, developed a more refined and compelling sense of fascinating interdependence in wild nature.

Developing strong feelings of awareness escalated with an enhanced sense of others blindly degrading the environment, as protected areas emerged as green island sanctuaries of natural

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<sup>1</sup> The original French title 'La clef des champs' in literal translation is 'the key of the fields,' an illusory unlocking notion reflecting a freeing-up and an escape to nature from the interpretative shackles of convention and city; detached, frontier and reflexive loosening up and reshaping processes in Eliasian terms.

<sup>2</sup> Elias describes this individualising detachment as *underlying the self-experience of homo clausus*, a self evident condition that is difficult to dislodge and impedes a more reality congruent image of intergenerational change.

<sup>3</sup> This convention (in/on & in/and) is used to reflect a processural interplay amongst involved and detached orientations consistent with an Eliasian social epistemology; developing open-ended intergenerational socio-symbolic meaning-making processes. (Elias, 1987)

wilderness. The experience of shared insights of interdependence and a sense of escalating risk with visitors in these idyllic surroundings, slowly shaped an experiential prospect for reversing the blind exploitation of natural resources and a threatened destruction of life support systems. A detaching step into a frontier freedom of wild nature, and the experiences of leading others into shared spiritual involvement within nature's wilderness, shaped the emergence of early environmental education. As further, more rational, institutional notions of education developed, there slowly emerged a greater capacity for reflexive detachment and clarifying contestations amongst groups of specialists seeking to reshape the lives of others.

Magritte's image of 'The Door to Freedom' reveals illusory assumptions in early nature experience perspectives, leaving open-ended, other contradictions and ambiguities that needed clarification in what emerged as environmental education. Beyond the shock of this surrealist oeuvre that brings foundational assumptions of early environmental education into question, the sociology of Elias provides a means of interpretative insight into the developing struggle.

This study seeks to trace the social shaping of the environmental education processes within which we are involved today. It reveals how, beyond the paradox of the shattered window of escape from modernist disillusionment, there developed involved, reflexive co-shaping interactions within surroundings and amongst environmental problem-solving experiences. These interactions signified shared experiences as processes shaping of a spiritual holism, changed awareness and new values. As these early nature-experience and earth-love ideologies developed within environmental education, there followed a successively more detached clarity and an emerging realisation that we remain, despite the illusion of escape, in the human condition of simply having windows in/on our world, with a tenuous grasp of the developing processes that envelope us.

An irony within the emergent processes of environmental education has been how detached, institutional experts came to develop communicative and experiential techniques as rational models of process with which to engineer changed awareness in target groups of others. These institutional, intervention / objective turns essentially appropriated local meaning-making struggles into the mediating domains of academic and statutory institutions. The developing processes shaped rational models as competing abstractions of process seeking legitimacy and to monopolise the facilitating of sustainable harmonies in communities of others.

Behind these contesting institutional objective ideals and techniques, obscured to the philosophical eye, are open-ended, long-term social processes that shaped us, what we have and where we are today. The experience of restorative escape to nature and freedom in the fields can, for example, be understood with insight into how sustained experiences of intense involvement / risk might create and perpetuate pervasive spirits and myth that are, only later, superseded within a developing detachment. Images of long-term, historical, social processes, illuminated in this study within the 'process sociology' vantage point and sensitising concepts of Norbert Elias, may enable us to avoid a nihilistic condition of shattered disillusionment as many strongly held cultural realities are exposed as a tenuous, sustaining fabric of myth, sedimented within language and experience.

Much of this enduring fabric of myth of processural history that might be discarded at the shock of its tenuous, intergenerational foundations may, however, be sources for divergent clarifying imagery towards more reality congruent knowledge in continuing age-old human meaning-making struggles. Simon Schama in his recent work on 'Landscape and Memory' likens this developing process to:

*a journey through spaces and places, eyes wide open, that may help us keep faith with a future on this tough, lovely old planet (Schama, 1995:19).*

Here, humans might come to see ourselves, hand-in-hand with others in a developing world that seldom meets with our idealised expectations, especially with the current rather bleak and challenging realities that confront us. These may lead us on spiritualising turns where we call forth mystifications which hold people together, but might obstruct our view. Similarly past oppression might bring on moral turns that can be equally blindly oppressive in emergent socially critical imperatives of reconstructive restitution. Also, utopian reflections on earlier times may develop as reflexive inversions that romance fantasies of harmonies lost. Many of these open developing processes have become interwoven in diverse, strongly held and contesting imperatives of environment and development education today. The process sociology of Elias offers the prospect of interpretative insight within developing social processes such as these, his key postulate being that:

*Without a clear sociological idea of the past, one unavoidably arrives at a distorted view of social relations in the present (Elias, 1995:38).*

Within the clarifying engagement of this study, a better sense of long term social processes might provide a symbolic capital of feelingful fragments for continuing reshaping actions. A better sense of environmental education social processes such as these will hopefully take us beyond past narrowing turns in our continuing open-ended intergenerational meaning-making journey. During these developing struggles, we have and will be changed in open-ended

ways beyond our control. We have also, however, and might increasingly so (Elias, 1995:xx), successively come to understand ourselves in/and our surroundings, achieving better self-control, more refined controls amongst others and more reality congruent images of sustaining surroundings. These processes may shape a social habitus where our current notions of nature and culture might become a necessary unity (Elias, 1991:11).

Many such open questions remain within a continuing clarifying engagement in environmental education and developing issues of sustainable living. Within this study, the story stands as it emerged within the twists and turns of long-term shaping processes in eastern southern Africa. This interpretative picture must remain open to continuing scrutiny within the six interlinked clusters of shaping struggle and change that developed within this study.

**Part One** develops images of shifting uncertainties in environmental education and reviews early historical processes to overview the research context and Eliasian social process orientation of the study.

Setting these aside as sensitising concepts, **Part Two** enters the long-term shaping of people in on the land amidst lengthening and strengthening patterns of connectivity.

**Part Three** examines how, within shifting wildlife conservation struggles, social change and the separation of nature's wilderness and people, shaped developing notions of education as institutional processes of social control.

**Part Four** examines how all sorts of education developed to make people aware of the natural environment so that they might conserve wildlife and solve developing environmental problems.

**Part Five** looks more closely at institutional social processes that shaped a professional field of abstracted models in developing, clarifying contestation.

The study is concluded with **Part Six** when, into the present, we stand amidst a debris of good intentions with little sense of the developing processes within which we have been and are intermeshed. Examined here are the shifting relational dynamics within an encounter with a case of local water pollution before a look back over the study with the aid of the twists and turns within a developing story of people, cabbage trees, dassies and the black eagle.

The Eliasian examination of long-term, developing social processes gives a sense of shaping trajectories that have brought us to where we are in environmental education today. The work is neither a comprehensive history nor a critical evaluation of the field / processes but stands as an open interpretative sociological study in/on the developing story. This seeks simply to shed some light on where we are, so that we might do things better with a little more understanding of ourselves<sup>4</sup> and the developing social processes within which we are intermeshed.

### ACKNOWLEDGEMENTS

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*I am grateful to the Natal Parks Board for granting me the necessary leave for the study. Thanks are also due to Pat Irwin of Rhodes University for registration of the project in the Education Department and for its co-supervision with Eureta Janse van Rensburg and Dinnie Nel. The leave and academic support gave me the time and rigorous company in convivial surroundings of disciplined detachment during periodic visits to Rhodes. Balancing this was continuing involvement during work in the Natal Parks Board and at the Umgeni Valley Project near my home in Howick, the two developing institutional settings of early environmental education in eastern southern Africa around which the investigation was centred.*

*To Norbert Elias, Steven Mennell and Johan Goudsblom I owe the challenging process sociology orientation and sensitising concepts for approaching the study. The developing synthesis of Eliasian civilising social processes was brought within reach by Mennell, opened up within a developing long-term by Goudsblom and found illuminating in the challenges of my work in the close company of Dinnie Nel, Jim Taylor and Eureta Janse van Rensburg.*

*To Dinnie my thanks for the supportive company and open maps enabling me to have a course charted amongst developing stories in the times with the interpretative tools of Eliasian sociology. Although Jim, Eureta and I travelled different routes, our paths crossed frequently. To both, and to other colleagues acknowledged in the text, I am grateful for a critical sharing of experiences and insights in a continuing engagement to understand the environmental education processes within which we are intermeshed.*

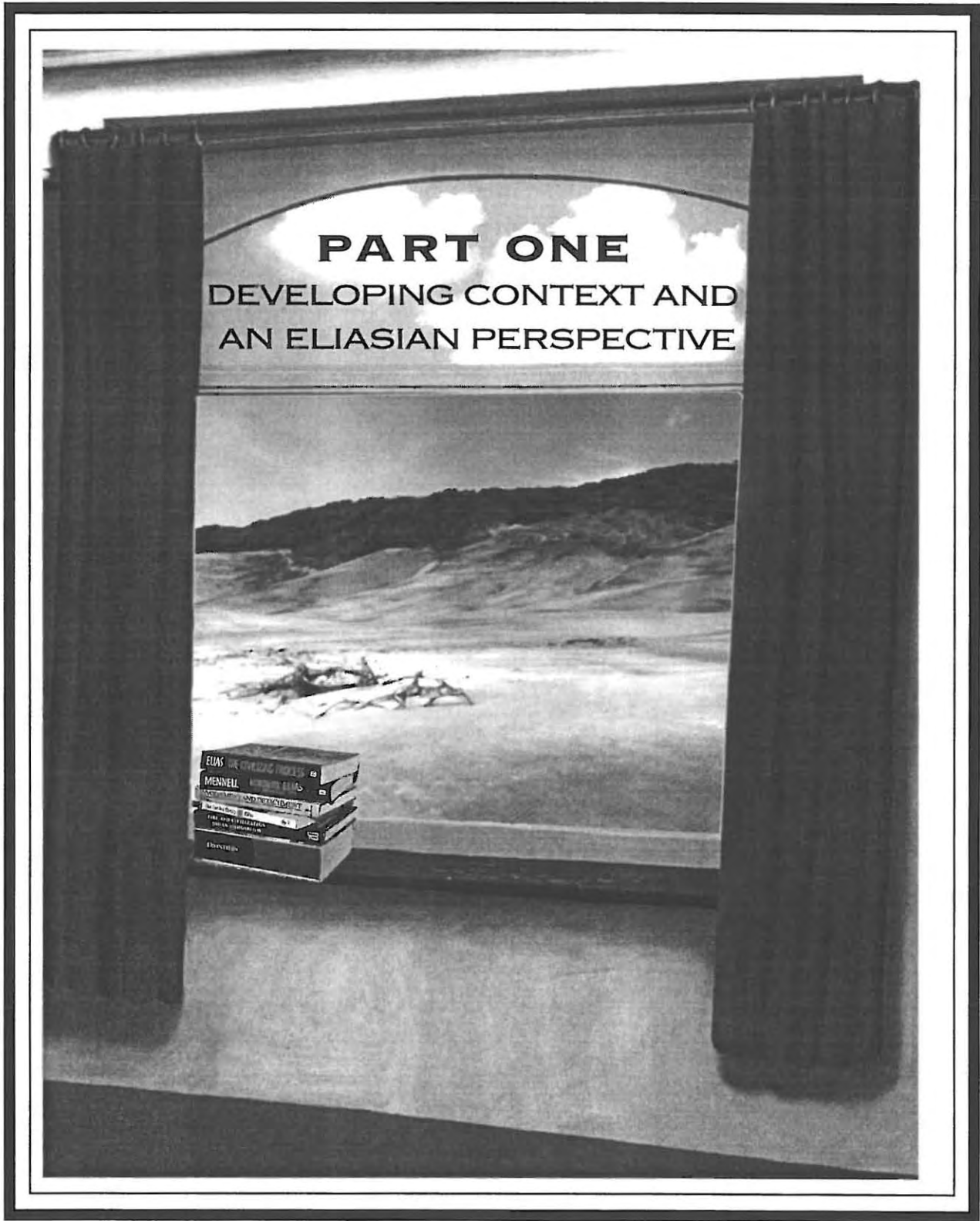
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<sup>4</sup> Not as 'self' experienced by individuals but in a sense of being in the company of others and preceding generations of humans in a developing long-term.

*The cover and preface pictures are reproduced with the kind permission of the National Gallery of Art, Washington DC and Museo Thyssen-Bornemisza, Madrid. All other illustrations are acknowledged to sources. In particular, I am grateful to Roger de la Harpe for access to the Natal Parks Board Library and to his own collection. My thanks also to Ian Player, George Hughes, Derek Potter, John Vincent, Sikhakane and others who helped in the lengthy processes of identifying people places and times depicted in photographs. The images were brought to life in the company of Vanessa Burger. She always listened to what I was looking for and then far exceeded my expectations with her creative interpretations. To Di Martin, my thanks for final changes and the images for Part One when Vanessa was on a walk-about in the Kalahari and deadlines for submission were pressing.*

*Most memorable in this project will be the company I shared with so many people who told me stories, read over sections or who like Tim Wright and the staff of the Umgeni Valley, freely shared materials and expertise. Beyond those who supervised the study and were thus 'paid' to engage with text in/on developing social process, giving freely of time, encouragement, expertise and support, numerous others took the time to read and to comment on my interpretative narrative. They suffered sweeping connectivities and tentative clusterings of detail in my struggles amidst evidence of developing axes of tension and the shifting complexities of human social process. Ruth Edgcombe for rich expertise in environmental history, Ian Player for shedding light on many open questions, Neil Murtough for introducing me to the 'Landscape and Memory' of Simon Schama and Dave Rowe-Rowe and Max Bachmann for ecological information on nagana, and to numerous others from the Natal Parks Board, Wilderness Leadership School, museums, libraries and art galleries who responded with generous enthusiasm to my questionings and requests. My thanks also go to Malcolm Powell, Trevor Sandwith and Jenny Mander for interacting with my struggles to expose and interpret difficult ideas, and to John Butler-Adam for looking at, and talking over, issues of complexity in language and style. In reviewing the developing narrative I erred towards treading lightly amidst some of the vagaries and complexity of expression and structure so as not to mask clarifying struggle or tenuous and shifting evidence in/as simple story when no such animal exists or has much use. Of this position, Spivak offers that 'we know plain prose cheats' (Lather, 1996:544). In simply striving to be clear, my way is littered with struggle in language to reveal and yet not to mask the tentative and open that must remain so.*

*An acknowledgement of the supportive company of close family and friends is in our interweaving in story and clarifying engagement in the text. Carmen, my wife, stands hand-in-hand in the story as supportive, critical companion and editorial eye. Our boys Kyle, Ross and Peter now run around and ahead in energetic creativity. Even in the darkest moments of lonely, individual interpretative uncertainty, the fine company I treasure would not allow any issue to be overlooked or any shedding of optimism in our developing human condition. Problems were simply brought into supportive, critical and engaging company with a hope-seeking realism which acknowledges a world seldom as we would like it.*



**PART ONE**  
DEVELOPING CONTEXT AND  
AN ELIASIAN PERSPECTIVE



## PART ONE

### DEVELOPING CONTEXT AND AN ELIASIAN PERSPECTIVE

*This research project examines long-term social processes in eastern southern Africa. The study is located, orientated and opened up in Part One and the developing story starts amongst early long-term social processes in Part Two. It then develops to shed light on the emergence and shaping of environmental education within wildlife conservation settings into the 1980's (Parts 3-4), and developments into the 1990's (Parts 5 & 6).*

*Chapter One opens with paradox on a wind swept beach where confidence in the warmth of close, like-minded company is juxtaposed within a shifting terrain of uncertainty, hostility and risk. That passionate conviction and ambiguity such as this can coexist within a developing field is revealed in a brief overview of emergent tensions in the work context that gave rise to the research imperative to review long-term social processes that shaped environmental education.*

*A second sensitising image of an experience of scuba diving is recounted as a metaphorical tool within the developing research process. More explicit, orientating features of an Eliasian research perspective are then outlined before methodological issues are examined in brief retrospective overview. This is done to assist readers in assessing features of a conjuncture amongst process images of shaping tensions in the emergent story that sheds light on environmental education.*

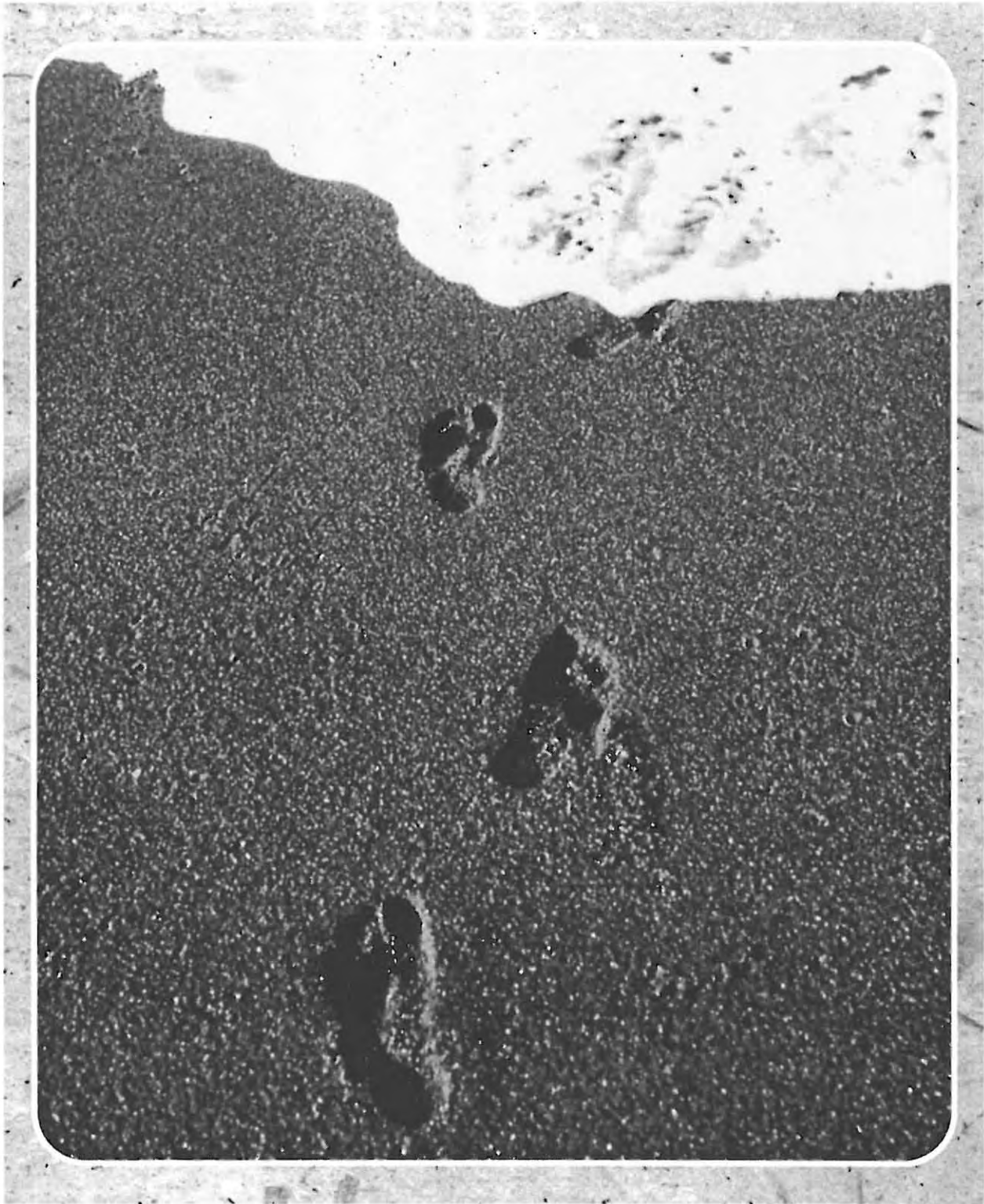
*Chapter Two* locates the Eliasian research perspective in a southern African setting. It opens with civilising processes in/of Europe in intermeshing struggle alongside long-term social processes shaping of people in/and surroundings in southern Africa. Other developing processes briefly opened and located for this study are emerging emancipatory tensions, widening moral turns and outsider ascendancy within relatively blind social processes. Education is examined as open-ended processes of social control civilising the Other, and finally ubuntu processes are reviewed as examples of developing, open-ended civilising in an African setting.

The chapter closes with an overview of sensitising concepts within the process sociology works of Norbert Elias. These are reviewed in some detail as conceptual tools for revealing shaping processes emergent in relational evidence within developing axes of tension in contexts of interdependent struggle. A sense of these earlier shaping processes is often beyond our view from within prevailing modernist notions of rational intervention. Within a long-term social process perspective in/on the past, however, it is possible to retrace and reveal shaping tensions and developing patterns of process that shed some light on the environmental education imperatives we experience today.

At the end of Part One, context and sensitising propositions are set aside. This is necessary in process sociology research where abstraction and grand theory of the day might obscure shaping story of earlier times.

*Part Two* then opens as research on early wildlife orientation. Slow, widening, often back and forth processes in open-ended story are revealing of long-term developing processes shaping people in/and surroundings. Here emergent axes of tension and shifting orientation tell a developing story reaching into wildlife conservation institutions, *Part Three*, and later, the emergence of environmental education as institutional communication and experiential processes of social intervention, *Part Four*.

*Setting out.....*



## CHAPTER ONE

### The developing context of the study

*..no person's knowledge has its beginnings in himself; ...each of us, with all his reflections, perceptions, intuitions, or experiences, stands on the shoulders of others, and that in order to understand the pattern of these intellectual activities, as they are today, you have to re-trace the long intergenerational process, in the course of which they have become what they are (Elias, 1982:31).*

#### i Early close circles in environmental education

In the developing contexts of over a decade of work in environmental education, the image that comes to mind is that of a beach swept with an intrusive chilly wind of illdefined and often conflicting ideas. In such situations, humans are often inclined to wrap themselves up with others of like ideas / experience and to figurate themselves in a way that shelters them from the discomfort of chilling uncertainties. The warmth of this company can then create a false sense of security / certainty that insulates one from the doubt, and a search to clarify apparent contradictions simply does not come to mind<sup>1</sup>.

In the mid 1980's, in close involvement and unaware of these social processes, with certainty and excitement, I entered a still somewhat pioneering community of environmental educators in South Africa. There was both a shared vision and a driving mission as we looked around us at the threatening storm-clouds, wind and waves whipped up by the environment crisis. At this early stage there was little doubt about what environmental education was and why it was important. World conferences had spelling it out for us and we were all keen to get about the important task of making people aware like us so that some sustainability might be restored in a land at risk.

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<sup>1</sup> This is apparent in social processes of involvement which can create intimate emotional attachment and a decoupling spiritualisation where spiritual leaders emerge amongst a following of believers with an spiritual mission to save the earth-spirit, mother earth. In situations of involved, doctrinaire solidarity one often finds that the people involved live with sometimes blatantly obvious contradictions but have not yet developed the detachment to clarify these, especially where spiritualising double-bind processes can threaten their exclusion from the group should they question doubtful foundational tenants.

Over time, and as I worked alone and with others in the field, I began to feel that we were somehow stuck on the outside trying to look in, and that the conceptual terrain which we occupied was not very secure. Amidst the warmth of the company and the excitement of the challenge I kept feeling the discomfort of shifting sand between my toes and even felt some in the corner of an eye obscuring a clearer view of what we were doing.

To dislodge this sand and to hopefully derive clearer insight into environmental education, this sociological study looks into some of the shaping tensions in the developing stories of human activity and conservation in eastern southern Africa. In doing so, it seeks to follow / trace how environmental education came to emerge through and within conservation institutions. My purpose in undertaking this study is to examine this processual terrain and some of the influences which have shaped notions of environmental education in the institutional settings in question.

## **ii Context and developing research imperative**

This study of intergenerational social processes shaping the context of my work emerged from a recent series of papers that sought greater clarity in environmental education<sup>2</sup>. The contexts demanding a greater coherence were the Share-Net resource development project with the Wildlife Society of Southern Africa and my job as an education officer with the Natal Parks Board, a wildlife conservation agency in KwaZulu-Natal.

The need for greater clarity in environmental education has been a concern of mine for over a decade of periodic papers to clarify some of the myth and muddle in the field<sup>3</sup>. A persistent feeling of a lack of coherence motivated the writing of these papers to enhance existing conceptual and methodological propositions for environmental education. The search for clarity emerged within the nature reserve, school curriculum, tertiary education and rural / urban community contexts of my day to day work.

Much of this work involves projects to develop resource materials. The process of working with teachers and conservation field staff on teaching and learning materials required that we seek better ways of approaching environmental education. Early amongst these projects were

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<sup>2</sup> O'Donoghue, 1993a; 1994b; 1994c; O'Donoghue et al., 1994.

<sup>3</sup> O'Donoghue, 1984; 1986c; 1987b; 1987d; 1991a; 1993a; 1993b; 1994b O'Donoghue and Taylor, 1988; Taylor et al., 1988.

the Action-Ecology project<sup>4</sup> and later a succession of Share-Net resource development initiatives<sup>5</sup>.

Within these projects, successive enhancements of environmental education emerged in a shifting socio-political terrain of rapid social change, but these failed to resolve persistent conceptual tensions. For example, technicist intervention orientations persisted within an apparent shift from 'top-down' to more 'grass-root' approaches into the 1990's.<sup>6</sup> There was little resonance amongst prevailing nature experience / earth-love perspectives on environmental education and the diverse social contexts of risk that confronted us in our work with teachers, on school excursions, within curriculum projects, and amongst youth and community groups.

The search for better orientation within the developing field of environmental education was sustained throughout my work at the Natal Parks Board and in the Share-Net resource development initiative of the late 1980's. By the 1990's some of the prevailing approaches to environmental education were being popularised as the solution to the environmental problems of the country. The ideas and approaches being proposed by key government agencies<sup>7</sup> as environmental education for the 'new' South Africa had earlier been exposed as having little relevance<sup>8</sup> within the challenging social contexts of environmental risk and social change in southern Africa.

The conceptual struggle became one of trying to clarify or to extricate ourselves from early 'experiential intervention' in nature, concurrent institutional orientations of 'information targeting' to communicate messages to Others, and most recently, the 'facilitatory empowerment' of communities of Others. These presented as competing perspectives, all vying for prominence in widening contexts of concern for environmental education.

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<sup>4</sup> O'Donoghue, 1985; 1986a; 1986c; 1986d; 1987a; 1987f; 1988b; 1989; 1990; O'Donoghue and Mc Naught, 1991.

<sup>5</sup> These include the Hands-on field guides, charts and poster of coastal and inland habitats; Global Rivers Environmental Education Network water test kits and manuals; Catchment Action series; How-to series of low-cost science and technology projects; Indigenous Knowledge Series; Enviro-Picture-Building. All were developed with teachers and produced as low-cost, copyright free materials in cooperation with the Wildlife Society of Southern Africa through Share-Net at the Umgeni Valley Project, Howick.

<sup>6</sup> See O'Donoghue, 1990 and 1993a for discussion on grassroots curriculum development and community action research.

<sup>7</sup> Here the idea of a separate subject proposed by the Department of National Education and the 'Earth-Love' (values education) activities of the Council for the Environment come to mind. These are examined in Chapter ten of the study.

<sup>8</sup> Here a popular brand of earth-love education founded on cultural aesthetics and difference (Opie, 1992) and technicist communication to target groups (Odendal, 1986) come to mind.

Within our clarifying struggles there developed critical discourses seeking to displace early institutional notions of psycho-experiential and communicative intervention<sup>9</sup> with more interactive 'social process' and cooperative problem solving orientations. These were initially clarified in our reshaping struggles within symbolic interactionism<sup>10</sup>. This slow shift brought in history and interacting individuals in/as communities,<sup>11</sup> a developing change in orientation where environment was seen as a social, political and economic idea and not just a physical world of people interacting with resources, plants and animals.

The conceptual shift was not an easy matter. It led to considerable worry in state and scientific institutional settings<sup>12</sup>. Concern about a politicising of conservation and environmental education were particularly difficult. This prompted the development of contesting perspectives and further clarity seeking papers, mentioned earlier. This study advances the process, seeking further sociological insight and clarity through an examination of the socio-historical shaping of environmental education within developing conservation institutions in eastern southern Africa.

Preceded by, and located within, an extended struggle for greater clarity, the research process started with 'a search for clear action'<sup>13</sup> a paper which examined developments and shifts in environmental education in the region. Further papers examined the underpinning notions and claims of 'earth-love' education<sup>14</sup> and some aspects of an increasing concern for the inclusion of indigenous knowledge in environmental processes<sup>15</sup>. A fourth paper on the 'shaping of Share-Net'<sup>16</sup> served to cast some light on social processes that were at play in the context of much of our resource development work. These projects were undertaken over a period of

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<sup>9</sup> Individual other as unaware psychological object to be communicated to and changed.

<sup>10</sup> Charon, 1995 and Nel, 1990

<sup>11</sup> Elias referring to a decisive step by Leibniz suggests that *one might experience oneself not as an "ego" (or institution) confronting all other people and things, but as being among others* (Elias, 1994 [1939]: 205 My bracket insertion).

<sup>12</sup> Added to this, competing conservation and education institutions that each set out to create awareness and to reshape the values and behaviour of others, made the task of an engaged clarification of environmental education somewhat difficult at times. Any critique ran the risk of been seen as competitive self interest. For example, the 'Bananas and Frogs' embargo (O'Donoghue, 1987e), the We Care controversy (O'Donoghue and Taylor, 1988) and Earth-love dispute (Taylor et al., 1993 and O'Donoghue, 1994b). These are examined later in the study as shaping axes of tension in the developing story of environmental education.

<sup>13</sup> O'Donoghue, 1993a (Appendix A).

<sup>14</sup> O'Donoghue, 1994b (Appendix B).

<sup>15</sup> O'Donoghue, 1994a (Appendix C).

<sup>16</sup> O'Donoghue et al., 1994 (Appendix D).

over a year prior to, but looking towards, this study

The research and continuing co-operative resource development thus opened up an extremely large pool of concerns and social issues. I was soon somewhat out of my depth in a sea of qualitative impressions but was, at the same time, compelled by a succession of useful interpretative insights. Within these formative research papers, I adjusted and refined my research perspective by delving into sociological texts, particularly the long-term process sociology of Norbert Elias. This perspective provided insight into developments in sociology and social theory which was then refined on a visit to the World Sociology Conference at Bielefeld and during a period of reading Eliasian works at the Figurational Sociology Institute, Amsterdam<sup>17</sup>.

Early on, clarifying writings and the development of a research orientation for this project was a relatively blind, circular process amongst contesting oppositions with little sense of historical shaping and connectivity. Elias and an interest in historical and sociological processes brought with it flashes of shaping insight within a developing story out of the long-term. Within this struggle I found myself in continuing clarifying play on the beach within metaphorical imagery.

### **iii A metaphorical process image emerging within the research**

Within the developing research the image of a more and more skilled swimmer / scuba-diver gaining insight with experience and then venturing into deeper and more exciting waters, emerged in reflections with colleagues and friends. As I successively visited Eliasian and other sociological texts and read into the early history of the region, this image developed to illuminate diverse features of the research.

The idea derives from a metaphorical signifying of features of the research process and the experience of snorkelling in winter on the Zululand coast with my children. Memorable is how the dry winter winds can make snorkelling a rather cold experience but this seldom holds back children. With me, however, it takes time and considerable coaxing before I don the necessary equipment and venture into the water. Once in the water, the cooling wind gives one little choice other than to immerse oneself in the situation.

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<sup>17</sup> This study was made possible by Joop Goudsblom and is reported in O'Donoghue, 1994c.

For those who have not had this type of experience it is difficult to understand what happens. When one stands on the beach, on the outside as it were, one merely gets the hint of something under the water; the flash of a school of tiny fish or a murky and intermittent image of coral encrusted rocks. When one ventures in for the first time, however, the shock of the sweeping colour and diversity is somewhat mesmerising. I am often held breathless with wonder at the complexity of the underwater landscape to be enjoyed, explored and interpreted, as if for the first time. And then the goggles mist up and, suddenly remembering that I need to breathe, I have been known to suck in a mouthful of sea water and to emerge spluttering and gasping for air on the surface.

With experience, equipment is adjusted, techniques learned and a revised perspective emerges as one becomes immersed in new and unfolding story. Once beyond the anxious and mesmerised stage, and with the interplay of shared experience and text, a world of new challenges, connectivity and insight is revealed. These experiences and issues are not easily shared with people who only dive in their imaginations, speculating on how it must, could and should be for others, whilst sitting on the beach trying to ignore or to shelter from the chill. The same is true of trying to share a detached view with those immersed in the heat of pressing events and strongly held compulsions.

I have developed these dimensions of a snorkelling experience as many features resonate with the study process. Not unlike other metaphors, however, this imagery has utopian deficiencies. It does not reflect many of the uncertainties, fears and risks when working amidst institutional tensions or interwoven compulsions, wonderings and insights that lead one on in clarifying struggle.

#### **iv A developing research perspective**

The study examines shaping social processes and emergent perspectives on environmental education that became sedimented within conservation institutional contexts into the 1980's<sup>18</sup>. It then traces developing orientations in a continuing struggle for greater clarity in environmental education amidst rapid socio-political change in South Africa into the 1990's.

As the sociology of Norbert Elias and other socio-historical narratives informed a developing

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<sup>18</sup> The shaping of 'outside' ideas and 'objectifications' of change which figurations of specialists functionally enact to change the values, attitudes and behaviour of the peoples of the region are discussed later in the text.

research orientation, a process sociology vantage point was developed and clarified within the study. Sociological writings used were all scrutinised for consistency in orientation.<sup>19</sup> In sustaining consistency in interpretative orientation I followed Elias who argues that one can find both right and wrong, and good and bad sociologies. Developing coherence and reality congruence in our sociological endeavour is thus not simply a matter of an audit of similarity in orientation. Any developing intellectual endeavour is, in no small measure, dependent on the quality of a continuing contested engagement within processes shaping the social fabric of society and emergent narratives within this.

With this issue in mind, I draw on a number of authors within whose work I detect, or they report, a similarity in orientation, but amongst whom there is also a healthy contestation within the pressing questions of our times. Another feature of these sociologies is that they are latently positive and hopeful in critical engagement with the socio-historical fabric of human social process. This study is thus also latently positive and hopeful, a spirit that I imbued within the contexts of my work of the last twelve years with the Natal Parks Board, Wildlife Society of Southern Africa and all of those who may experience both exciting insights and worry within the developing narrative of this study. I share these concerns.

The study emerged as a rigorous, interpretative endeavour seeking empirical evidence of shaping processes within developing historical patterns of continuity and change. In exploring a particular event, fact or tension in history, no prior judgement as to validity, correctness or truth is explicitly considered. What becomes important is how things were then, and how these and people are found to change over time. Evidence of social orientation is found in how social figurations emerged within functional chains in history, located processural patterns which reveal shaping processes in developing context and social discourse. Simply put, an Eliasian perspective is a retracing search amidst shifting orientation, ambiguity and object congruence found in the symbols humans use to derive and sustain orientation in our developing world.

Within the study, the interpretation of shaping social processes of environmental education develops with a sociogenesis character. Great care had to be taken to eliminate pre-understandings. Initially this was simply a matter of a conscious effort to set these aside in search for a sense of how these were shaped within the developing story of conservation and environmental education.

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<sup>19</sup> For readers who may share a concern for discursive intellectual conjuncture I would suggest a look at the history of sociological endeavour as Elias has done. See Elias, 1970 and Goudsblom, 1977 for historical issues and Wagner, 1994c for some contemporary connectivities and advances.

Throughout the research process I have endeavoured to be consistent within an Eliasian perspective by *not allowing one's wishes to dominate one's thinking*.<sup>20</sup> I, as seeker of evidence of process, teller of developing story and reflexive interpreter in text, in the company of others amidst a symbolic capital of shared and contested meanings, locate within the social space of my environmental education work and the current perspectives we struggle within. I see this as an open-ended social process where we continuously seek to illuminate, to test and to extend the horizons of our understandings in day to day activities and in review processes such as this study. Within an open process of critical review, clarification and reintegration such as this, the study stands as an open project in my continuing work.

#### v A retrospective overview of the research process

To make features of the 'research method' (an interpretative sociological process on/in developing long-term social process) more explicit, I have attempted to provide readers with a retrospective<sup>21</sup> overview firstly clarifying and then mapping out 'methodological' features of the developing study.

This Eliasian study presents as a sustained struggle for clarity to open the way for a sociological understanding of environmental education in eastern southern Africa. At first glance, the research process with Eliasian sensitising concepts suggests a classical methodological *modus operandi* where research instruments are used to arrive at defensible conclusions to a stipulated question. A methodological reading such as this is both superficial and in error. This study does not approach its topic as a problem (research question) examined with research instruments (methodology) which serve to remap the social history of environmental education (conclusion).

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<sup>20</sup> Goudsblom, 1987a:333, reviewing some of the conceptual distinctions of Eliasian sociological perspectives, and adding that: *One ought to exert all one's powers to help terminate the self-deceit of dressing up short term social ideals as eternally valid sociological theories* (Elias, 1987:357). This orientation was to shape the study as an open interpretative project.

<sup>21</sup> After the study there was a call to make plain the method so that readers might assess research question, determination of the selected objects of study and value claims as to the reliability of evidence and answers. In justifying the inappropriateness of shoe-horning an Eliasian study process within an analytical research convention such as this, I found, in the resultant review, new insights and grounded elegance within Eliasian process sociology. I also deduced that an embedded and emergent 'methodology' might be made more explicit for readers by my providing a brief introductory overview of my locating, orientating and interpretative processes. At the time, these did not have the located and developmental coherent apparent now. If this had been the case prior to location and developmental interpretative investigation, a defensible sociological study of long-term developing processes would not have been possible.

Process Sociology makes location demands that does not allow a simple imposition of research instruments or apriori interpretative frameworks. Interpretative insight into shaping processes needs social location and validating congruence in context amidst shifting orientation in developing intergenerational social processes. Here researcher, with an array of Eliasian sensitising concepts<sup>22</sup> set aside but at hand, delves into the early and developing game. Sensitising concepts resonate within empirical evidence of emerging patterns of process with voice in the times to add a developing congruence of location for emergent interpretative insight. Eliasian sensitising concepts thus open up in/as a developing yet open-ended shaping story. Further emergent axes of tension and voice in context enables one to track a shaping journey in developing social processes amidst richer webs of validating congruence into the present to shed light on prevailing orientation.

It should be noted that the research process was not as explicit as a remapping abstraction such as this might suggest. Elias studiously avoided process reducing notions of method and apriori research question<sup>23</sup>. These conventional orientations can blind one to a socially shaped location of questions and the interpretative impositions of external analytical frameworks<sup>24</sup>. They also obscure possible developmental epistemological conjuncture and concurrent reorientation of the emotions within grounded sociological research endeavour. Within social process research such as this, congruence amongst grounded story and interpretative search for insight into shaping processes is somewhat like how rhythm, melody and song might carry meaning and mood in lifted spirits and dance. Amidst developing processural resonance such as this resides a grounded interpretative elegance where long-term shaping processes, in located

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<sup>22</sup> These were derived within the open-ended, intergenerationally mapped and socially located Eliasian Process Sociology theory about civilising processes revealed and articulated in the works of Norbert Elias. Located exemplars of developing social processes in southern Africa and an overview of sensitising concepts are provided in Chapter Two.

<sup>23</sup> This is not an abdication on methodological questions of rigour and validity. A passionate attention to these issues is to be found in a lifetime of research by Elias. Within his developing project, repeating patterns of process were located and followed time and again until derived as 'sensitising concepts' in continuing engaging clarification amidst long-term, open-ended social processes shaping emergent differentiation and orientation in social context.

<sup>24</sup> In looking back within the vantage point of an Eliasian spiral staircase, any interpretative signifying of developing processes obviously requires an imposition of language to tell an open-ended story. Aware of this Elias insists on 'sensitising concepts' to reveal intergenerational social processes in developing interpretative illumination. To get a grasp of the importance of this point, I have found it useful to note that interpretation is not a matter of finding and putting the right piece of a developing puzzle in place. Against this direct impositional matching to a grid of predefined concepts, Eliasian 'sensitising concepts' merely serve to expose shaping contours in/of process as emergent 'pieces in process' amidst a developing picture within the shifting terrain of human social processes, and reaching into the tensions in/of the present.

Eliasian 'rereading,' intermesh within cumulative webs of open-ended, validating congruence. These reach into the present enabling new insight, exposing paradox and posing challenging steering choices.

In retrospective overview here, the issue of being more explicit on 'research method' enjoined in review of the study, sensitised me to some of the refinements of Eliasian conjunctures within which I have been immersed in postures of shifting involvement and detachment as story and present orientations came to interact within an interpretative clarifying journey out of a developing long-term. This reflexive process reveals how emergent webs of located insight in/on developing social process might shed light on current orientations with a cumulative interpretative confidence that remains open-ended in and out of a developing long-term.

Emerging orientations and tensions in current social processes of environmental education have been made explicit as experiences of intangible ambiguity and somewhat circular clarifying contestation (myth and muddle) developing in and round the contexts of my work<sup>25</sup>. Within and behind these developing tensions are long-term social processes that are only open to located interpretative illumination in context, amongst emergent concepts and orientations in developing processes. A research process such as this needs located orientation and an opening up of emergent axes of tension. A sensitising locating, orientating and opening up in developmental southern African socio-historical processes is initially undertaken in Chapter Two.

Here Eliasian civilising, loosening frontier struggle, emancipatory tensions, moral turns and shifting ascendancy, all open-ended processes interacting within widening intermeshing, are revealed as relatively blind shaping social processes, the threads of which are woven behind and within developing orientations and a later institutional imperative for environmental education. Within the sweep of history, shaping processes cannot be made explicit without located evidence and congruence amongst story and study in grounded conjuncture revealed within developmental interweaving opened within social process study<sup>26</sup>. Education and civilising are clarified amongst and along with open-ended civilising emergent in *ubuntu* processes in Africa and *civilising* trajectories in Europe.<sup>27</sup> Today these developing processes

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<sup>25</sup> See appendices for a sense of this circular process of clarifying contestation which is examined in Part Four as developing institutional political sociologies of institutional, process reducing abstraction.

<sup>26</sup> This feature of the research process is made more explicit in section five (v) of Chapter Two.

<sup>27</sup> In illuminating processural similarities one must not fall into the trap of oppositional comparison as each exists in developing context within the social figurations in question. These only rub shoulders in continuing intermeshings as one finds today but which must remain open-ended.

remain, as always, open-ended in continuing social intermeshing amongst humans in/and surroundings.

A further early 'methodological' opening up of Eliasian Process Sociology research orientation is the concluding overview of sensitising concepts in Chapter Two. The map of concepts outlined in overview here is derived within the advancing Figuration Sociology / process sociology project of Elias<sup>28</sup>. As sensitising abstractions, these models of process can only have interpretative life when they shed light on and emerge within the contours of developing social process.

Throughout the study, an interpretative 'methodological' fine tuning and clarifying is undertaken within the emergent picture in developing story. A grounded capital of process images related to developing wildlife orientation, for example, emerges with compelling interpretative congruence within the stories of shifting struggle in/of Parts two and three. These resonate in windows on voice in/on the times and develop coherence within webs of validating insight in developing orientations and axes of tension throughout the twists and turns of the developing interpretative narrative. The works of Elias and others provide evidence of similar examples and an interpretative depth within the developing story of social processes shaping the emergence of environmental education.

In nearing and entering the present (Parts five and six) a sensitivity to grounded conjuncture that might advocate more congruent and useful orientations in developing context become important. Here one is simply back in the company of others with new insight in developing steering choices. And one finds that it is not a matter of knowing better or more but hopefully shedding some light on developing challenges with the prospect of being able to do a better job within the opportunities that develop or might be created in positive, creative and energetic company.

#### **iv An overview of the developing study**

The study is structured as it unfolded over eighteen months of one and two month periods of

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<sup>28</sup> Mennell, 1992 provides as overview of developing works revealing that Figuration / Process sociology is not easily tagged conventional historical sociology and Elias admired for some novel originality. The developing project grasps and resolves some key issues in sociology as a developing social process.

study leave.<sup>29</sup> Throughout this time, a cumulative wealth of facts and developing process images shaped more and more refined insight into the developing picture of what became environmental education into the 1980's. As the project developed, all later materials and evidence encountered added to open pictures of process enabling more and more refined interpretation and insight. This experience prompted me to develop the study as an open project within my continuing work. Each of the parts thus retains an open character to be enhanced and redirected as further new materials and insights continue to emerge. An open-character is to be found in footnotes that not only reference and expand on issues in the text but also note questions and issues that must remain open in my continuing work in environmental education in eastern southern Africa.

Chapter two looks at Eliasian social process in a southern African setting. It opens with an overview of wider developing processes that shed location and shaping light within the emergent story of conservation and environmental education in eastern southern Africa. In doing so, it examines relatively blind processes in the times but which none-the-less emerged as shaping of people in/and surroundings of escalating risk. Of particular note are insights into early outsider ascendancy and developing struggles that shaped emancipatory movements and moral imperatives. These were to emerge in socially critical environmental education perspectives in southern Africa amidst a late levelling of power gradients and rapid social change in the 1990's. Chapter two also provides an overview of an Eliasian process sociology orientation and key sensitising concepts for interpretative insight into how humans in the struggles that engage them (us) are shaping of the developing story within which we are intermeshed.

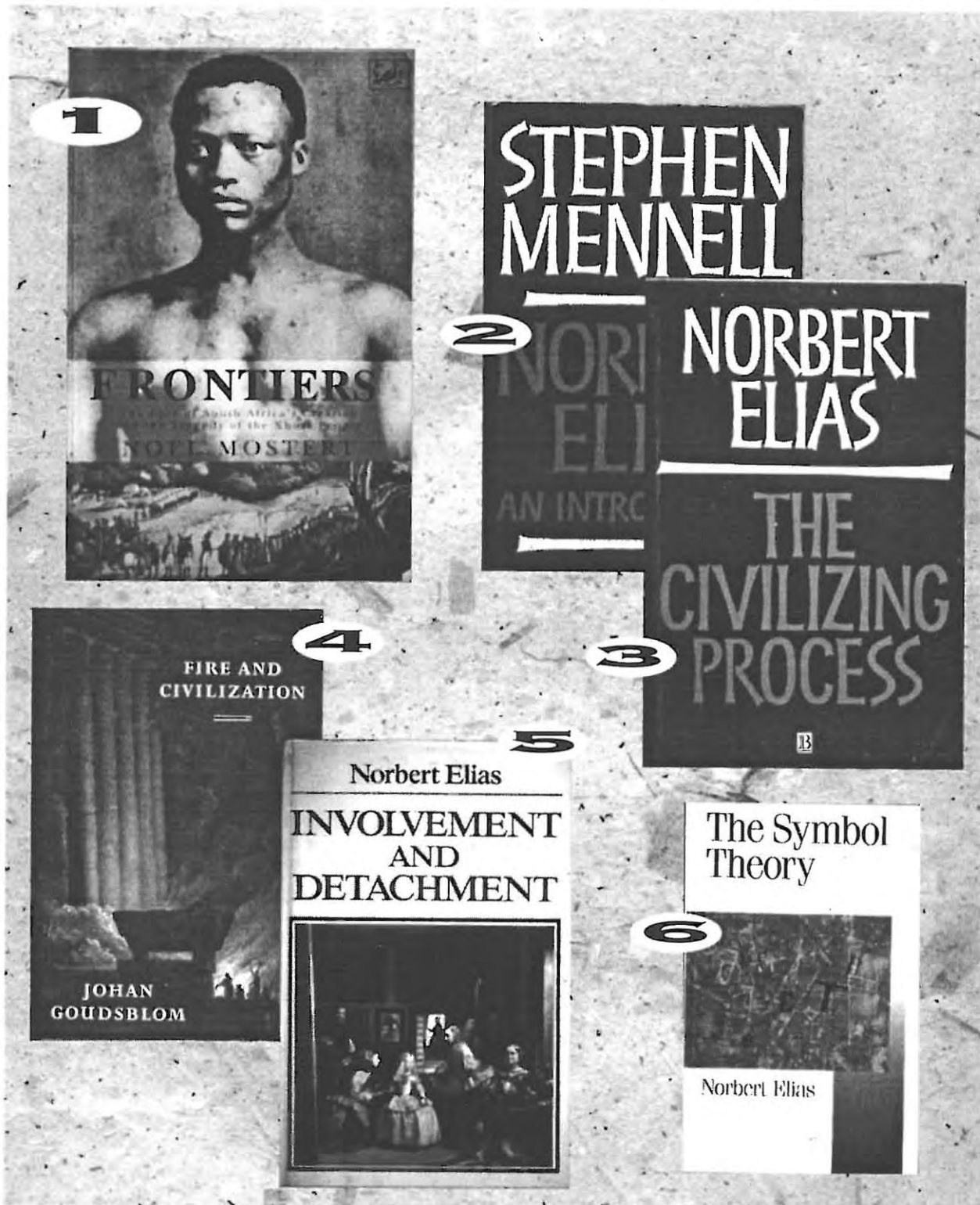
Following this locating and orientating backdrop of **Part One**, the study is developed in five parts. **Part Two** examines early social figurations and struggles during which a conventional wisdom of hunting to conserve was inverted in developing struggles with Nagana and the establishment of nature reserves to protect wildlife. **Part Three** examines social processes

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<sup>29</sup> In conceptualising these and the research process I tried to work within a balancing interplay amongst involved and detached orientations. Within a preponderance of one I would seek out the other. This I conceptualised and enacted by travelling away to work at Rhodes University where I locked myself away at times and hotly debated/clarified issues with students and supervisors at others. Within this detached vantage point on the region, I also spent many hours sitting up on the rock hill sides amongst dassies on numerous extended daily walks, wrestling with myself and the difficult problems that confronted my engagement with the story of environmental education. My rock vantage point overlooked the colonial town of Grahamstown, the township and that karoo bush reaching into the Transkei grassland and KwaZulu-Natal. At other times I worked at home with a closer involvement in co-operative resource development projects and the development of new structures for environmental education in an integrated administration amidst post-apartheid change.

within early protected areas, with particular attention being given to the Umfolozi Game Reserve as an early site of environmental education in the wilderness. **Part Four** gives attention to conservation institution processes shaping environmental education as a rational, professional endeavour in/of specialist agencies. It also examines the developing story of how environmental education emerged within the Joint Venture, the Umgeni Valley Project and a widening concern that led to the formation of the Environmental Education Association of Southern Africa at the Treverton Conference in the early 1980's. **Part Five** continues this developing story, examining academic and statutory processes shaping the developing field into the 1990's. It also gives attention to three distinct but interlinked cases that shed light on some of the tensions and ambiguities in the field today. Looking back on Parts Two to Five, the project enters the present day, in **Part Six**, with an account of a case of environmental action. This throws up questions about developing notions of environmental education, before a concluding chapter looks back on the story by way of a single thread that highlights change and struggle that has been shaping of people in/and surroundings. The project is concluded with an open question leaving the story and its parts as a capital of symbols for insight into the continuing struggles for more sustainable living in the region.

*Some sensitising company\**



- \* 1. *Frontiers*, Mostert, 1993 2. *Norbert Elias: An Introduction*, Menzell, 1994. 3. *The Civilising Process*, Elias, 1990 [1939] 4. *Fire and Civilisation*, Goudbloom, 1992. 5. *Involvement and Detachment*, Elias, 1987 [1983] 6. *The Symbol Theory*, Elias, 1991 [1989].

## CHAPTER TWO

### Eliasian social process in southern Africa

*The deeper we penetrate the wealth of particular facts to discover the structure and regularities of the past, the more clearly emerges a firm framework of processes within which the scattered facts are taken up (Elias, 1994 [1939]:513).*

My opening concern in this study is to examine widening civilising trajectories amongst earlier long-term socio-ecological processes, all of which shaped people in/and the land amidst developing risk that gave rise to environmental education imperatives into the 1970's. To do so, I draw on the process sociology of Norbert Elias in developing a grounded enquiry within evidence of long-term social processes in eastern southern Africa. This perspective enables the study to examine early social processes as these emerge in context and develop shaping trajectories, initially within in conservation settings and education in the outdoors, to underpin the shifting conceptual terrain of environmental education into the present day.

This chapter locates, opens and develops key long-term social processes as background to, and examples of, shaping process within and around the frontier settings of eastern southern Africa in the 1800's. These orientating process images reveal relatively blind early intermeshing, the emergence of moral imperatives and open processes of outsider ascendancy in day to day steering choices. They serve to locate and to orientate the research process for Eliasian civilising to be viewed in an African context in interaction amongst and resonance with early tribal processes of ubuntu. This intermeshing interaction continues today within the appropriation of ubuntu in struggles to engineer an African social habitus within a 'New South Africa.'

Within this introductory overview, developing axes of tension and reshaping struggle pose open questions that are left to the tracing review of/in developing long-term social processes that follows. The chapter closes with an overview of Eliasian perspectives and sensitising concepts, briefly developed as an orientating introduction to conceptual tools within the study.

Throughout this study, I have attempted to follow a consistent 'processural' approach drawing on the process sociology of Norbert Elias for interpretative sociological insight. My interpretations are exploratory and firming rather than conclusive in a work where I have sought both a broad scope and an interpretative depth in a search for better understanding within developing processes of environmental education.

## **i Civilising frontiers and long term processes in southern Africa**

In the opening chapters of his '*History of Manners*' Elias(1994:3) examines developing concepts of culture / civilisation as these emerged in diverse orientations within social processes in Germany and France. Early social processes within these developing trajectories are then examined as relatively blind and long-term processes shaping people in/and the states of Europe. Elias explores how the civilised and these civilisations not only came to reflect individual / national self-image, but he also illustrates how:

*shortly before the turn of the century, it starts on its journey as a rallying cry throughout the world.... Unlike the situation when the concept was formed, from now on nations consider the process of civilisation as completed within their own societies; they see themselves as bearers of an existing or finished civilisation to others, as standard-bearers of expanding civilization.... "civilisation," from now on serves at least those nations which have become colonial conquerors, and therefore a kind of upper class to large sections of the non-European world, as justification of their rule, ....the consciousness of the superiority of their own behaviour and its embodiments in science, technology, or art began to spread over whole nations of the West<sup>1</sup> (Elias, 1994: 41).*

*'Frontiers: The Epic of South Africa's Creation and the Tragedy of the Xhosa People'* by Noel

<sup>1</sup> Elias gave his attention to the conceptual tools and broad trajectories of developing human social processes in Europe and not to the twists and turns of more recent globalizing. For a sense of the widening story see Heller and Feher (1988:133). A philosophical discourse on '*The Postmodern Political Condition*' with a tendency to present objective pictures with little revealing of developing social processes and interpretative tools, it is none-the-less an elegant text moving beyond conventional boundaries amongst history, sociology and philosophy. It tells the story and gives some examples of changing relational dynamics that have shaped a broad levelling of power gradients into this century. These are exposed as long-term developing trajectories by Elias (1995:27) and are examined in chapter nine as key shaping processes of environmental education in the 1990's as South Africa underwent a period of rapid change with a receding of apartheid governance.

Mostert (1993) gave me an early glimpse of how developing processes in the past has shaped the socio-ecological landscape in southern Africa. He examines history as events interwoven within physical and social processes on the eastern frontier of South Africa as colonial outsiders and established indigenous tribal figurations interacted within lengthening and strengthening intermeshing. He develops a picture of historical processes of shift, mixing, conflict and expanding social connectivity within the civilising frontier of European colonial expansion in the Eastern Cape.

Developing processes flowing from these early struggles reached north into Natal and Zululand, the terrain that was to give rise to the conservation institutions and environmental education examined in this study. Slow and halting processes of change had occurred as early hunters and expanding Trekboer and British colonial administrative figurations, interacted with the Zulu Kingdom of the 1800's. Guy (1979) provides a long-term image of how the Zulu tribal civilisation of the 1800's was preceded by earlier smaller tribal figurations and social processes which shaped the southern African eastern landscape with fire and cattle:

*Fire, the iron hoe, and the axe in the hands of man, and the grazing patterns of his stock had, over a period of perhaps 1 500 years, slowly altered the vegetational patterns. The forest was driven back to the crests of the high ridges, and the bush to the wettest slopes and along the water-courses, and it was replaced by grassland. In the dry valleys burning and grazing reduced the wooded element of the savanna, opening it up and favouring the grasses (Guy, 1979: 5).*

These long-term processes had shaped the Nguni cattle peoples on/and the east coast grasslands of southern Africa. The Nguni emerged not as static tribal communities but as developing social figurations interacting within the changing biophysical surroundings of the region, with each other, amongst other indigenous peoples and within later colonial empires. In examining these long-term developing processes my concern is with how they shaped people on\and the land and also gave rise to wildlife conservation institutions and environmental education into the 1980's. The civilising processes shaping of this story are found in early long-term processes in southern Africa and in the European colonial reach into the region as expanding social figurations interacted within developing struggles on the eastern frontier of the Cape Colony.

## ii Early struggles on the Cape eastern frontier

Early interactions in the Eastern Cape set in motion developing processes of interdependence that might cast some much needed light on how conservation and environmental education came to be what they are today. At that time, across the ocean from Europe and into the southern frontiers regions of the Nguni tribal civilisations came the vanguard of an expansive colonial civilising process. Mostert sketches some of the broader implications of these expansions and intermeshing struggles:

*Upon the coast of Africa therefore converged all the principal frontiers from which came the global expansion and fusion of human society, and it was the Cape of Good Hope specifically that symbolized for many centuries the two great formative frontiers of the modern world: the physical one of the oceanic barrier to the east, and its concomitant one of the mind, global consciousness (Mostert, 1993:xiii).*

Shaping interdependence within these widening interactions are to be found as early as the 1800's as semi-nomadic trekboers on the outer fringes of European colonial expansion had been rubbing up against the frontiers of the Xhosa (Nguni) for some time. Here developing webs of intermeshing emerged through a sustained intermingling of Trekboer and Xhosa in the region of the Great Fish River. It is of note that these early interactive processes, although vigorous and harsh to us today, were not initially marked by an overt enmity<sup>2</sup>. Mostert reports that:

*The Boers adapted easily to Xhosa life so similar to their own, when it suited them. None of it was at any rate strange to them. What foreign visitors might recoil at they took for granted. They lived unconcernedly with the encrusted flies, dark clouds of fleas and rancid smoke of the kraal and its huts.<sup>3</sup> These things were in their own hut-like homes. Skin was not their problem. They took black concubines, as they had Khoikhoi women, and sometimes took up residence in*

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<sup>2</sup> Mostert describes how a clear differentiation was apparent from earliest interactions where the Dutch had no intention of making colonial inroads into the subcontinent and sharply distinguished themselves from indigenous peoples they encountered and kept at a distance.

<sup>3</sup> This may appear somewhat of an overstatement but it serves to shock one out of a modern blindness to life before pesticides. What is shockingly abhorrent to us now was common-place and taken for granted in earlier times. These seasonal and developing conditions in older rural settlements were no shock to colonists given the lice and conditions on ships. Things did, however, change as have the sensitivities of people like ourselves.

*Xhosa kraals, under the authority of the chief.<sup>4</sup> It was a strange association in that, whatever the common ground, however easy it may have been to fall in with Xhosa life, the boer very rarely if ever allowed themselves to be fully absorbed into it. Finally, this was what drew a line. Proximity and intimacy achieved familiarity, sensual gratification, shared lifestyle and mutual convenience, but not tolerance and understanding (Mostert, 1993: 240-241).*

These developing patterns of interaction within the frontier vanguard of early trekboers were not sustained with the Bushman,<sup>5</sup> aboriginal peoples who were successively consigned to oblivion or to the desert scrub further west. Wildlife which had been exploited in developing ways<sup>6</sup> within earlier nomadic and later more sedentary tribal social processes, was also influenced by the processural change on the frontier. New technologies and changing processes of interaction amidst increasing trade within longer chains of connectivity, all contributed to changed patterns of resource exploitation and land clearing of wildlife on an expanding frontier. Mostert reports on the impact of this on wildlife.

*The results of this perpetual havoc upon the game was evident. On the plains, thousands of skulls of springbok and wildebeest 'were strewed around wherever the hunter turned his eye', and at trekboer farms 'the skulls and horns of hundreds of black wildebeest (Mostert, 1993:172).*

The change was, at the time, seen as a desirable taming of the frontier. The developing processes which increased security and control over surroundings brought changing patterns of risk. Changing processes of hunting, trade and risk were not limited to the European colonists. Neither were these patterns of wildlife exploitation a radical departure from indigenous

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<sup>4</sup> These realities are also difficult to grapple with today as they have been studiously ignored or exaggerated in politico-historical rhetoric. They also changed, slipping behind social curtains of shame, dark family secrets obscured from new generations as developing waves of social colonisation tamed the frontiers.

<sup>5</sup> See Wright (1978) for a review of San (Bushman) history. Recent works are reviewing much of the early research owing to greater sensitivity to successive idealising revivals and how narratives of primitive difference became themes of apartheid separation. Of interest to me were how biophysical change marked many early boundaries amongst pastoral and hunter gathering peoples and how predation on cattle was reshaping of hunter-gathering towards a raiding and trading economy (Wright, 1987:7). Strongly held perspectives on the San make it very difficult to engage in a clarifying of these issues as environmental education has 'ecologised' and 'idealised' the harmonies of these and other aboriginal peoples, ascribing them with spiritual orientations for a more sustainable society in eastern southern Africa and elsewhere.

<sup>6</sup> Although change was slow and impact apparently slight, creating the impression of static societies, early tribal societies were in fact subjected to considerable change. The idea of timelessness and an unchanging stability and existence in a sustainable harmony are actually poorly founded romantic relics that people still believe today as they longingly look back at the past within the turmoils of the present.

dispositions, except perhaps in terms of hunting technologies tending to individualise the hunt. Over time, tribal communal processes of mass mobilising hunts with spears were successively displaced by smaller groups of individual hunters with guns.

The change was not simply the result of new technology, the gun, or a blood-lust attendant with greater power over nature and a loosening of social constraint / self-control on the frontier. It was, however, through an intermeshed and a developing web of shifting social process of interdependence that the two cattle peoples, Xhosa and Trekboer, came to contest, to dominate and to reshape the landscape (political, social, economic and bio-physical) within the eastern frontier and further afield. A key point is that, at the time, those involved had little sense of these processes and their broader, long-term trajectories.

The dominant interacting peoples were further shaped within a developing British colonial administrative influence, a continuing and shifting processual struggle of changing fortunes described so vividly by Mostert in his study. In expansive mood Mostert suggests that:

*More than at any other settlement point during the ages of the oceanic expansion of Europe, it was along the frontier line of confrontation in the Cape Colony that uneasy questioning of the dark side of universal involvement became lodged. ....Upon the Cape Colony's military-colonial frontier were focused the moral imperatives born of the abolitionist cause and the rise and power of evangelical religion.<sup>7</sup> These both extrapolated abolitionist principles into a commitment to create a universal conscience concerning questions of race and to establish a censorious vigilance over the fate of indigenous societies grappling with colonial intrusion.*

*The frontier line of the Cape Colony accordingly assumed, as the nineteenth century advanced, a commanding role in the moral struggle for the soul of the new British empire after the loss of the old.<sup>8</sup> The Cape Colony became a microcosm of the tension between high-minded conscience<sup>9</sup> and self-interest which accompanied the nascent industrial age and its expanding commerce (Mostert, 1993:xvi - xvii).*

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7 Elias (1995:26) identifies these emancipatory movements as key shaping trajectories especially amidst a broad levelling of power gradients into this century. In South Africa one finds this held up within Apartheid struggles and then developing in somewhat of a rush into the 1990's and the present day.

8 Elias (1995:xiii) cites England as a great power that has had to grapple with the shadow of a greater past leaving open the implications of these struggles. The South African conquests and wars were a particularly turbulent period of ups and downs in the British imperial civilising struggle.

9 Elias (1987b:41) locates the roots of this reflexive struggle in the earlier blind civilising process coinciding with an emergent *consciousness of civilization, the consciousness of their own behaviour and its embodiments*. These feelings were to be severely questioned amidst the escalating risk that accompanied modernist expansive and intensive development and resource exploitation.

That shifting patterns of long-term social interaction reshaped the physical environment is self evident and apparent in the array of socio-ecological problems that have emerged in the region. That within this story, the land and long-term social processes also shaped the people is less obvious and remains relatively opaque without the conceptual tools to interpret shifting social process.

Elias (1995) provides an overview of the emergence and development of tensions and trajectories amongst processes of conscious formation so eloquently alluded to by Mostert above. The frontier struggles for ascendancy shaping of emancipatory moral imperatives within a developing imperial civilising machine were key processes. These sought to restore and retain older glories being lost, following shifts in globalizing economic and political processes. Within southern Africa, an outsider vantage point was shaping of a detached idealism that shifted within the changing fortunes of Empire. Emergent orientations were crystallised within people and in developing institutions which became *responsible for ensuring that the most different people of a society acquire the same characteristics, possess the same national habitus*<sup>10</sup> (Elias, 1995:xix). It is within these institutional processes that one finds the roots of education imperatives that were to emerge in open-ended ways within the twists and turns of emancipatory struggles and escalating risk .

### iii Shifting struggle and early emancipatory tensions

The early colonial missionary eye upon African tribal life recreated the noble savage of Africa in the image of earlier European romancing of sylvian virtue, a simple soul in need of civilising

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<sup>10</sup> Elias gives evidence to support this observation in his opening to 'The Germans.' Here he provides a picture of developing processes within his early works on Civilising and state formation and the widening intermeshings of this century. In doing so, he reviews changes in humanity as a whole including improved living standards, emancipatory movements, levelling of power gradients and emergent risk; all as observations of processes reshaping of social habitus. Although this work then looks in on the Germans as a specific case the synthesis is a useful sensitising concept for helping one to look for emancipatory movements and developing moral turns, as well as broad levelling of power relations amongst former established and outsiders. Through struggle and revival these shaping stories reach into the emergence of education as processes reshaping of the fortunes of developing and contesting human social figurations.

salvation<sup>11</sup>. Set against this developing process, the everyday activities of frontier farmers led to a sustained axis of tension. John Campbell, an early missionary, describes how ownership of land and the monopolisation of resources developed as a tension in the times.

*we came to a Hottentot kraal, where we would have halted for the night, but their fountain was dried up, so that they had no water for man or beast, and were to remove from it on the morrow. From their own account they had once a better place, but a boor having asked permission first to sow a little corn, then to erect a mill, they allowed it; after which he applied to government for a grant to the place, which they promised, not knowing that it was in possession of these Hottentots; of course they were driven from it (Mostert, 1993:173).*

Here we have both an example of social processes of land contestation and the roots of a narrative of moral indignation against the injustice of such processes. Slowly, these developing processes, continuing change and emergent risk were to shape the extended liberation struggle in the region and a reflexive turn within discourses of social justice and retribution into the 1990's. These ideas came to underpin environmental education during the socio-political change that sought to shed the yoke of apartheid and to foster more democratic processes of governance.

This sketch is a large jump from early struggles within relatively blind injustices, over the engineering of separation within apartheid and into the reconstructive struggles of the present day. It is presented in this way to illustrate an open-endedness in processes that, within a developing long-term, have shifting trajectories reshaping of people in/and surroundings. In the present and looking back, we are prone to overlook the relatively blind early story and have little sight of the processes that have reshaped humans with increasing feelings of moral concern for the injustices of the past and for the plight of others. Here, in the heat of the strong feelings that come with a growing moral indignation at past injustices, history is rewritten within developing rationalist hegemonies. With some sight of how such processes develop, I have tried to examine earlier times as they were then and to explore how people and things have come to change into how we experience them today. This is not easy as it requires a level of detachment that does not always sit well with the strong feelings of current struggles for social justice and retribution.

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<sup>11</sup> The roots of this myth are to be found in eighteenth century fascination with the primitive virtue of Helvetic communities and its romancing revival in widening social interaction with indigenous peoples of the colonies. See Schama, 1995:487-490 for an overview of shaping processes of this myth in European romantic literature.

It is not too difficult for us to achieve the level of detachment necessary to see that the taking over of this land was part of a sustained and complex process of land contestation amongst early colonists and indigenous peoples. As these processes developed and the cloak of apartheid enveloped the region, injustice increased with a blinkered intent of the ruling elite to engineer separations. These struggles were, in turn, reshaping of peoples and landscape in pervasive developing ways that are lost to reductionist moralist debates today.

Elias uses a 'land' example to illustrate how such long-term social processes bring about change amongst people in their surroundings. He states:

*"He didn't want all the land; he just wanted the land next to his."*

*This simple and precise formulation expresses very well how, from the interweaving of countless individual interests and intentions - whether tending in the same direction or in divergent and hostile directions - something comes into being that was planned by none of these individuals, yet has emerged nevertheless from their intentions and actions. And really this is the whole secret of social figurations, their compelling dynamics, their structural regularities, their process character and their development; this is the secret of sociogenesis and of relational dynamics (Elias, 1994 [1939] :389).*

The level of detachment here can have its problems if one is unable to see it as a process vantage point on/within developing long-term and contesting pictures, and subject to change. The change comes amongst developing axes of tension and within ruptures in the open-ended processes where people are intermeshed in struggle and story.

Here one finds competing ideals and levels of involvement which interpret the past from within the dispositions of the present, a form of process reduction that can successively transform earlier open-ended, relatively blind and ambivalent processes into things, fixed states and rational progressions. Without a degree of detachment and a realization that these perspectives reflect a differing and later level of synthesis, one may be prone to rejecting a process sociology perspective because, in this case, it could overlook the injustice of colonial land grabbing. This is not the case, however, as it seeks simply to suspend the pressing ideologies of the present to engage within a developing past that was shaping of people and the present we currently experience as somewhat fixed and at risk. Human social processes are, however, a lot more harsh, fluid and open-ended than we would like or are currently capable of having sight of

within prevailing orientations and struggles.

If one is able to achieve a suspensive distance within the perspectives of the present, the next challenge and most difficult of all, is to see the connections amongst developing processes in the past and the emergent orientations within which we find ourselves today. All are linked in time and space within intergenerational processes of shifting interdependence and a greater need/capacity for reflexive judgement, at a differing level of synthesis, as people come to look back upon social process and social injustice with greater insight. Elias (1995) describes how status uncertainty and other risk associated with rapid change and a levelling of the power gradient, comes with processural change amongst former established and outsider groups leading to *a change in the conscious-formation of both* (Elias, 1995:27). Involved as we are within this, it is difficult to face how it was different in the past and how we and things have changed.

Elias likens this change in humanity as a whole, to climbing a spiral staircase and looking back on what happened as well as in on oneself in past and present events. This change in people has developed over sustained intergenerational struggles, developing a capacity to stand outside and to make more considered steering choices. Outsiders can be advantaged especially when involved in novel encounters and rewarding struggle in a foreign and hostile land that becomes home.

#### **iv Outsider struggle and an open question on early ascendancy**

A sense of the open-ended processural and developing co-shaping of people in/and their surroundings is apparent in Mostert's description of the contrasts in a changing environment. He portrays some of the colonist struggles amongst the familiar, larger than life imaginings and the unspeakably harsh and terrifying, all experienced and visited upon people during the passage of daily life and the unpredictable pattern of seasonal cycles. Mostert states

*One moment it is a land that seems to be all English meadows, parkland. Roses*

*and carnations bloom, orchards hang with fruit. Go some distance, not very far, and one is within an even cooler form of natural refreshment, the abrupt highlands. Streams fall misty from high ledges, spray upon ferns, bracken, heathers and all the flowering entanglements of green tropical abundance. Then, at no distance at all again from these, mere yards it sometimes can seem, one confronts the other side of it: all drought, dust, despair. It is here that the aloes burn, among vast cracked granite boulders that radiate heat like furnaces, and serve as alters for coiled and venomous serpents, which add a new aberration to their threat by spitting their poison unerringly into the eyes. And all about, mile after mile, stretches thick mimosa bush, a hardy greenery, wielding massed thorns the size of small daggers, which stab and strike at whatever passes Mostert, 1993:xxiii).*

An obvious interpretation here is that the colonists brought with them an image of their homelands. From this it follows that these perspectives were used to interpret and interact in the new environment in ways that the images of a foreign homeland were imposed on the landscape and thus also upon defeated indigenous peoples. On the surface, there is a lot of compelling evidence on the developing physical landscape for this static and reductionist perspective. When applied to human social process it lacks a grasp of the complexities of interdependence and has little explanatory depth for how struggles amongst outsiders might enable greater reality congruence and a developing symbolic power within continuing processes of intermeshing. Here, struggles and a mastery of control chances in challenging and novel surroundings on an unforgiving foreign landscape of great extremes may have contributed to some early and developing ascendancy. Some insight into these processes is possible if one examines the patterns of interaction amongst outsiders during a developing daily life in the times. This was an important orientating perspective for a process sociology vantage point and its interpretative value for insight into some of the complexities of human social process.

In the day to day experience of foreign outsiders, the newness of things can be advantageous where interaction is not subject to rigorous social control that might disadvantage them. A sustained experience of the newness of things and accompanying processes of 'shock' and 'delight' can be advantageous. For the insider, however, the obvious is seldom remarkable and is more often than not taken for granted within established social perspectives. Here prevailing orientation and interdependence may be double-bind processes which hold people together within established myth and mystery, taken for granted and are thus beyond critical review.

Describing these social processes, Bauman illustrates how *knowledge picks up from the point of breach, disruption, misunderstanding*<sup>12</sup>. These open processes ‘work both ways’ amongst contesting groups but are often accentuated among outsiders<sup>13</sup> who can, within a changed experience of time and space, derive ‘advantage’ and develop a more differentiated symbolic capital for steering choices within the stream of day-to-day events. This is further enhanced by a developing capacity for detachment which can shape a more reality-congruent symbolic capital for continuing steering choices, bringing further advantage.

In developing this process image here, my intention is to reveal some of the complex dimensions of early meaning making interactions that are all too easily overlooked. Similar processes were to develop in early nature reserves where novelty and fascination in wild nature were key processes around which knowledge of ecological interdependence was picked up and developed as a underpinning of environmental education. These are examined in Part Three of the study.

Although these images are useful sensitising concepts for examining developing social process, Elias would seek actual examples in preference to abstractions, as I do within the developing study that follows. I thus do not advance this as a proposition here to explain developing colonial ascendancy. These intermeshings were far more diverse and complex and to describe them in a hypothetical way would not be sociological, except to raise open questions and to develop sensitising concepts as I do here. Elias always warns of falling into the trap of abstract propositions that are not located in accounts of social process amongst people in the events. At the same time he points out that, in the everyday and taken for granted, people have little sight of the social processes within which they are intermeshed.

#### v **Grounded conjuncture amongst story and study in the research process**

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<sup>12</sup> Bauman (1993:148) describing social process and drawing on the works of Schutz and Heidegger.

<sup>13</sup> See Elias (Mennell, 1992:115) on ‘the outsider’ and his processual epistemology within the notions of involvement and detachment. For a complementary insight into Schutz see Nel (1990) who examines a connectivity with Mead and American pragmatism.

Story and study have been opened side by side in this chapter within a locating of Eliasian civilising in southern Africa. Within brief windows into developing historical processes in the Cape eastern frontier the study provides a broad orientation to early social processes and some insight into their shaping of people in/on the land. The story of environmental education in eastern southern Africa cannot be addressed without a sense of colonial civilising outreach, an image of the long-term shaping of indigenous peoples in/and surroundings and an examination of the relatively blind intermeshings. These illuminate emancipatory imperatives which emerged amidst outsider ascendancy in further processes of developing struggles that shaped people in/and surroundings of pressing socio-ecological risk into the present day.

Elias calls for, and his process sociology enables, such a conjuncture<sup>14</sup> of grounded research examining shaping social processes past, into the suspended tensions of a developing present, for a better grasp of these and self amongst others in/and surroundings. In attempting this disciplined engagement within the developing story of environmental education in eastern southern Africa, I have sought empirical data and windows in/on emergent social processes for a picture of how these fit together to reveal a better sense of the imperatives and ideas we have developed for what we call environmental education today. In approaching the study within an Eliasian perspective, education ceased to be a fixed proposition and the process was seen to have emerged within early social processes in diverse and open-ended ways. This shaped further open questions which were clarified within reshaping breaks, ruptures and axes of tension amongst the peoples intermeshed in the developing story.

As I approached the study with developing open questions in mind, I have centred my attention on texts of / in the times. Where possible, the discourse of and in the times is allowed to 'speak for itself' to reveal an open-ended complexity of human social process. An open ambivalence are often lost when process reducing wishes and images of the past are viewed from within the

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<sup>14</sup> Here 'conjuncture' is used in an intentional sense where the research process, in 'picking-up' an orientation within the long-term, seeks to sustain this congruence within the twists and turns of the developing story examined, and the questions and lack of clarity in the times that it seeks to illuminate within a better grasp of the developing intermeshings in the environmental education of the day.

orientations and imperatives of the present. This is an important issue as not only does it give a sense of the fluidity of human social process, but it can enable one to locate emergent critical and reflexive discourses within the developing story in ways that reveal how these struggles were shaping of where we are and how we see things today.

After locating clarifying imperatives within developing axes of tension in the present, I set these aside and sought a research orientation rooted in developing stories and struggles of earlier times. By doing so, to paraphrase Elias, I exercised all of my powers to terminate any self-deceit that might dress up short-term ideals within interpretations that conform with my wishes and thinking.<sup>15</sup> This disciplined research orientation has, at times, necessitated confronting some rather harsh realities and also grappling with some uncomfortable questions in the developing field of environmental education. As open questions emerged and firmer interpretations slowly sedimented in the emergent story, the study developed an open character as a grounded sociological discourse in/on environmental education in eastern southern Africa.

## **vi Education to civilize the Other**

Early on, common sense shaping in daily life was displaced by schooling that sought to develop conformity amongst the prefunctional Other, mainly young children. Slowly, those who felt superior amongst others, also sought to improve them so that they might be more useful or less threatening and less different but none-the-less distant, as in the case of indigenous peoples in southern Africa. Within these open-ended developing processes, education in many forms emerged as diverse ways of establishing and extending civilising in the colonial development of a christian nation amongst the heathen in/of a foreign land.

I have briefly outlined these open process images here to illustrate how education is not seen as a narrow specialist field in this study, but as a developing process of civilizing social control.

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<sup>15</sup> See Goudsblom (1987a:333) who in providing an orientation to the sociology of Elias develops this issue more fully.

Specialist, objective and instrumental perspective emerged much later in developing processes located and shaped in emergent academic and statutory institutions. Early and obvious amongst education institution / processes are mission and farm schools that sought to prepare children for adulthood and later to shape a Christian nation. These preceded widening imperatives which extended the scope of institutional education to the shaping and changing of others in increasingly diverse ways so that they might conform within prevailing ideals of human social life. These open-ended processes are rooted in an increasingly intentional civilising of prefunctional and different others. By the 1980's these processes had emerged as diverse institutional activities amongst which environmental education sought to reshape functional deviance that was seen to be degrading the environment and its life support systems.

As these processes developed within recent turns in environmental education they were reshaped in narratives seeking social justice and the restoration of indigenous harmonies lost. These developing processes are to be found in earlier noble savage ideals and emancipatory tensions but within a recent revival they were merged and reshaped as key orientating processes within environmental education for change, social justice and sustainable living<sup>16</sup>. The need for environmental education that we take for granted and the moral imperatives of social justice and indigenous harmony that we feel today are all rooted in an earlier and developing story that has shaped people in/and our surroundings.

The shaping origins of the feelings and risks of the present are to be found in early struggles for ascendancy and in the developing story that shaped us in/and the land and the company we share. Within the intermeshed struggle on the Cape eastern frontier, a processural vantage point reveals diverse shifts and a developing unequal struggle that leaves little room for utopian sentimentality. These processes shaped escalating socio-ecological risk and emergent imperatives to educate, all of which are interlinked within the twists and turns of the developing

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<sup>16</sup> Of note here is that when we look back on historical events we tend to impose a guiding hand or an engineering intent where this was most improbable. The failure of apartheid to engineer change is a salutary lesson, the misery and disruption it caused being more a warning of the dangers of large scale social engineering than a lesson on historical injustice passed. Many of the horrors are still with us and the idea of social engineering is alive and well. A recent turn seeks for people to engineer themselves to the tune of the facilitating expert outsider.

story of human social process in the region. Without a clear sense of this, we have little hope of a more sustainable interdependence amongst others and a better grasp of our surroundings during our current struggle to reduce pressing socio-ecological risk through environmental education.

A social process vantage point looks for patterns of social interaction; an everyday and historical world of people and their changing activities and orientations. There is a world of intergenerational interdependence within what is experienced in daily life today as relatively static objective images and facts. The study of social process is essentially a search for interpretative insight and for clarity about civilising processes by which humans come to shape their worlds and are themselves shaped within developing patterns of interdependence.

## **vii Civilising in Europe, Africa and developing struggles**

The more I have read Eliasian texts, the more I have been struck by an elegant deriving and locating of concepts and clarifying discourse in social space within the same emergent patterns of involvement and detachment that Elias detected within those same developing human social processes. The colonial civilising examined earlier and the 'civilising' of Elias may appear to be very close and to rub shoulders in ways that might cause some confusion. To avoid this one must realise that Elias uses the notion of civilising in specific process sociological sense. I have found it useful to see the civilising of Elias as grounded models of process that seek to model the often invisible twists and turns of shaping process and developing trajectories of shifting controls amongst people in the company of others in/and surroundings. In this section I examine some key aspects of the civilising of Elias before observing that similar social processes emerged in Africa in open-ended developing ways. I also observe that, within globalizing intermeshing the open trajectory of 'both,' in continuing tension and/or a developing integration, remains open-ended in the challenges within which we are intermeshed today.

Following the earlier images of colonial civilising outreach and intermeshing struggles on the

eastern frontier of the Cape, I must caution readers on the specific sociological use of the word 'civilising' by Norbert Elias. In his studies he identified processes within societies through which there emerge key orientations and trajectories that advance and sustain chains of interdependence; a sedimenting and a lengthening of social connectivity that binds, and is interwoven within, an emergent sense of self, other in/and socio-biophysical surrounds. This developing, society-wide sense of identity and location holds diverse social figurations together as societies and civilisations. That these developing processes have direction but are open-ended, ebb and flow and become intertwined, and are successively more extensive within emergent state figurations is what Elias so elegantly reveals in his study of Europe (Elias, 1994 [1939]). Also of note is that these ties and social constraints can loosen on the 'frontiers' and are subject to ruptures which, as processural change, can shape shifts in orientation. These tend, none-the-less to advance established trajectories but remain open-ended processes of social connectivity and subject to change.

It is of note that Elias did not lay claim to revealing 'The,' or even 'A,' *Civilising Process*. Direct translation of the original German text reads 'About' *The Civilising Process*. The publication of his study as *The Civilising Process* can mask an interpretative refinement, lost in translation. This point of clarification has enabled this study both to note a 'civilised' sense of superiority apparent amongst the European colonists in Africa and to develop insight into the relatively blind 'civilising' social processes shaping of this and continuing as socio-ecological processes within advancing globalization.

In engaging within these processes, the study is of shaping orientation, ruptures and advancing patterns of change towards and around the emergence of environmental education in Natal conservation institutions settings into the 1980's. It is not explicitly located within the struggles of the indigenous peoples of southern Africa who were central contestants in the historical processes of social change. They have also borne the brunt of considerable environmental stress but the indigenous voices were, throughout much of the period examined, as if silent against the

vibrancy and all powerful trajectory of other voices<sup>17</sup>. Also of orientating note is that, if this study was centred among indigenous discourses of suppression and liberation, I might have been disabled from seeing both an ambivalence in historical process and much of the latent ambiguity within decoupled academic post-colonial critical discourse that now tends to colonise and control much indigenous voice in idealised emancipatory images of empowerment and change.

By locating the critical process sociology discourse of this study within developing and shifting patterns of interdependence, the indigenous struggle is not lost but is intertwined within all others. This may in fact provide a better perspective as indigenous voices are emergent once again. Although they sometimes lack coherence and are not often themselves, they are hopefully listening to themselves more critically than has been the pattern amongst past ruling groups in South Africa<sup>18</sup>.

To locate the Eliasian insight 'about civilising processes' in an African context, beyond its obvious underpinnings within expanding colonial processes, I cautiously offer that the socially located 'civilising' of Europe might, for illustrative purposes, be equated with the pre-colonial tribal socialising processes loosely termed *ubuntu*<sup>19</sup>. Both social contexts have given voice to a word for socialising processes which might identify and bind people together within developing figurations and which seek to enhance social connectivity within globalizing trajectories.

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<sup>17</sup> Even today indigenous people are 'given voice' by external agents. They are also often facilitated 'to voice' when outsiders feel that they should be heard. The academic colonisation of indigenous peoples so that they and their community nominated representatives have become 'herders of voice' merits further processural scrutiny. Also, silence is a powerful process in education that seeks to change others. This, and active resistance, was a key process in early extension processes that sought to uplift rural communities during the apartheid years.

<sup>18</sup> What to make of this in environmental education, and how some have tended to grasp at a utopian image of the indigenous amidst the risks and uncertainties of the times, is examined as an open question in the latter part of the study.

<sup>19</sup> I caution that any dialectical comparison would be beyond my descriptive use of the term here. I further venture to suggest that, an advancing and stabilising voice that they share may contribute to the shaping of civil society in South Africa today, within a longer global connectivity. That the ideas might converge in some way, following the dark hole of apartheid from which we are currently still trying to extricate ourselves, would ratify Mostert's reading of the co-shaping social history of the Eastern Cape. That this was superseded by other events which brought about the abuses and struggles of the apartheid era, might later be revealed as part of broader and more long-term civilising processes.

To clarify this illustrative comparison I note a recent academic trend to popularise *ubuntu* as a communal / ethical cement of and in a newly democratic South Africa<sup>20</sup>. This modernist elevation of ubuntu by abstraction from early tribal social contexts, and from an associative sense of racial solidarity seeking within anti-apartheid figurations, into the ambivalent conceptual atmosphere of liberal democracy and civil society today, throws up open questions about the continuing, open-ended trajectories of civilising. This is beyond our view, as it has been in the past, and can be a very difficult position to face in our current condition of rational self-importance. The reified academic discourse on/of *ubuntu* may be of little more than rhetorical note within the open-ended struggles for ubuntu in/and civil society that are shaping of people in the company of others within escalating socio-ecological risk.

For this study, however, the broad feeling of ubuntu that many people share, serves as a comparative illustration of an early and developing civilising imperative in African social history<sup>21</sup>. *Ubuntu* is a processural feature within tribal orientations and was also associated with the expansion of some tribes and an absorption of others into larger social figurations in earlier times<sup>22</sup>.

I am cautious in these illustrations as none of the web of struggles and civilising can be separated or dealt with in simple comparative or oppositional terms. Social processes like this can only exist, and thus be considered at all, within the processural context of social location. For this study, therefore, the notion of oppositional or dialectical analysis through comparing propositions emergent within the text, with facts commonly held by others elsewhere and today, is untenable. This point of orientation serves to acknowledge that others may hold different opinions or have research perspective that dispute ideas reflected in this interpretative text.

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<sup>20</sup> See Sindane, 1995.

<sup>21</sup> Here, sociologically speaking, civilising processes are open-ended shaping and binding processural threads within shifting figurations. These are forged and are socially sustained and reshaped within the advance of so called modern, traditional and more global societies.

<sup>22</sup> For example, the remarkable expansive activities of the Zulu in the 1820's, although the scope of these is currently under review as having been over stated to attract British intervention in the interests of colonial trading companies.

This is an interpretative study and does not seek to be a definitive, objective analysis of environmental education, seeing a position such as this as untenable. Its purpose is to shed some light on the social emergence of environmental education in the contexts in question. To do this, it draws on various sources and fields to see how developing processes might have fitted together in the shaping of environmental education. This would give a better sense of how environmental education developed and became established in eastern southern Africa. It is thus that I stipulate, for the orientation of readers, that this study does not seek to develop or to argue towards a new, unified and more tenable form of environmental education or to comparatively develop one form as superior to any others. It does, however, seek to locate and to develop insight into emergent notions of environmental education and to examine conceptual and contextual orientations and limitations in the developing field.

In this text, useful comparison is thus not possible outside the relational dynamics of social context<sup>23</sup>. In these one looks to identify patterns of connectivity, emergent orientation and trends in continuity, as well as breaks and ruptures where reshaping processes have been enacted, or might be more apparent. Here, process does not become object or thing but socio-symbolic struggle that can give rise to socially located images of possibilities and imperatives that often take on thing-like qualities for people involved in the struggle for clarity of ideas and social change. Some of these processes were repeated in numerous intermeshed social contexts to shape environmental education in the 1970's and beyond. Nothing can be taken as self evident and there will always be room for clarifying how relatively stable social orientations and a sense of shared identity have come into being, and how they might be understood with greater insight and interpretative clarity as the outcomes of earlier and continuing civilising processes. Some of the outcomes and implications of this will be examined in the unfolding story.

Now that a number of key points of clarity for interpreting 'civilising and text' have been dealt with, it can be reported that for this study it is noted that civilising processes in Africa and of

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<sup>23</sup> Disputes are thus examined in social context and within the narratives and claims that carry the ideas forward as notions of and advances in environmental education.

Europe took diverse forms in changing figurations and are now intermeshing within broader political sociologies that have shaped and continue to provide orientation within the struggles of the day<sup>24</sup>, including advancing patterns of globalization. This civilising is historically evident in both Western civilising connectivity, in the intermeshing of the peoples in early colonial history as well as within pre-colonial tribal figurations.

In drawing together this conceptual overview I must stress that Eliasian process sociology does not provide a universal theory of civilising processes. It does, however, provide a sociological perspective on developing social process and offers sensitising concepts for uncovering how humans have become intermeshed in open-ended ways within developing socio-ecological settings. In developing a narrative within and on the intergenerational processes that gave rise to increasing socio-ecological risk and shaped environmental education in eastern southern Africa, I have drawn on a wide range of sensitising concepts. To introduce readers to these and to give a sense of how they gave orientation within the developing study, they are now briefly reviewed.

#### **viii Eliasian sensitising concepts for uncovering shaping social process**

It was only with a repeated re-reading of the works of Norbert Elias<sup>25</sup> over an extended period that a successively more refined sociological vantage point emerged within the developing study. This enabled insight into how long-term historical processes and changing patterns of connectivity have shaped developing social orientation to wildlife in/and environment. With this came the imperative for this study to examine the emergence of environmental education in institutional settings in eastern southern Africa.

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<sup>24</sup> As the story of conservation and environmental education unfolds, a need to articulate an environmental education that is sociologically conceptualised within the diverse social processes that shape society will become apparent.

<sup>25</sup> Renewed contact with, and insight into, the works of Elias was greatly aided by the introductory text of Mennell, 1992. This assisted in interpreting Elias and gave a sense of the developmental features of his works. Also useful, was access to the Elias collection in Amsterdam and the guiding assistance of Joop Goudsblom.

This section seeks to introduce key features of the sociology of Norbert Elias. In this study, the sensitising concepts of his processual vantage point were used to examine how developing long-term social process shaped changing orientation to wildlife and environment within the emerging institutional processes of nature conservation and environmental education, in and around the Natal Parks Board.

Being able to see and to think in and about 'social process' requires some reorientation away from our everyday world of objects. Defined notions like conservation and environmental education take on a character of developing social processes. The concern is not only with the prevailing objective character of the process but with how this was shaped within earlier developing struggles. An object character that we experience and argue about in a field like environmental education can thus be found to have developed and to be sustained within processes where a specialist social figuration has come to share a symbolic universe that gives identity, orientation and the necessary differentiation for steering the activity in everyday institutional life.

The process sociology of Elias does not provide a framework of objective concepts or definitive models that can be applied to sociological analysis. It is, however, a sociological perspective and a pool of sensitising concepts for identifying and interpreting the processual shaping of people and things within the developing social contexts in question. This means that one cannot apply the observations of Elias as either a stipulated research method or an analytical framework of theoretical propositions. The orientation and open sensitising concepts simply help one to pick up and give attention to shaping processes within interpretative accounts in/of the times. For greater interpretative insight I drew on Eliasian sensitising concepts which might shed light on the open-ended socio-ecological processes<sup>26</sup> that were shaping of people in/and the environment.

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<sup>26</sup> Elias acknowledges bio-physical shaping influences without separating these from, or discounting, a pervasive influence within the stream of processual developments. It was to be in his last work, *The Symbol Theory*" that he brought these into an long-term and intermeshed focus that looked beyond a nature / culture divide, characteristic most current human orientations.

The process sociology of Elias provides an open-ended perspective for examining developing human social interaction. Within this perspective one looks for developing processes within which human social figurations came to have a sense of control over surroundings and how, within this, people came to organise themselves and to interact in and as groups. As a picture of process develops one is able to see how people were immersed in and become orientated to make steering choices within the developing patterns of socio-ecological interdependence, risks and tensions of everyday life. With this comes a sense of how surroundings and people were/are sustained and reshaped within relatively open and ongoing processural change, and sustained trajectories that are sedimented within lengthening and strengthening patterns of social connectivity.

This brief and somewhat abstracted overview of a processural perspective can be of limited value if one is predisposed to research providing firm concepts and abstract propositions for critical reflection and rational comparative analysis. My concern is not to impose, or dialectically to test, but to trace and follow developing social process that has brought prevailing orientations and ideas into being what they have become for us.

The research into developing social process seeks to cast some light on how these recent orientations emerged, and on their value within contested notions of environmental education, but only later in the developing story. At the outset these current dispositions to conserve and to educate must be set aside if one is to see how processes and developing orientations of earlier social contexts were very different to, and yet preceded and are behind, the socio-symbolic imperatives that derive our sense of what we are doing in environmental education today. To do this the study examines changing orientation to wildlife conservation and the shaping of environmental education within emergent conservation figurations in eastern southern Africa.

The Eliasian sociological vantage point enables one to examine these shaping social processes among people within lengthening chains of connectivity and changing biophysical surroundings. What follows is a brief overview of some key orientating and sensitising propositions within developing and open-ended civilising processes.

To examine historical shaping process in this study, simply stated, I look at a changing intermeshing of ecological, sociological and psychological patterns within the shifting figurations of people in the region. To derive this sociological perspective Elias illustrates how shaping social process can be assessed by examining an interacting and open-ended triad of controls<sup>27</sup> within social context and changing patterns of long-term social development. He thus illustrates that an assessment of the way historical social processes develop or shape a society and its orientation can be ascertained:

(1) *by the extent of its control-chances over **non-human complexes of events** - that is, control over what are normally called 'natural events;'*

(2) *by the extent of its control-chances over **interpersonal relationships** - that is, control over what are normally called 'social relationships;'*

(3) *by the extent to which each of its members has control over himself as **an individual** - for, however dependent he may always be on others, he has learned from infancy to control himself to a greater or lesser degree (Elias, 1970: 156).*

This notion of an interdependence within a triad of basic controls has been derived as a useful sensitising concept for sociological enquiry. It is suggested that these interacting control-chances are interdependent both in their emergence and in their functioning at any given stage of development<sup>28</sup> within a social figuration. The notion of a stage of development within his open-ended perspective of civilising processes serves to enable one to use these ideas as interpretative tools to examine social processes within an advancing synthesis in historical contexts that give rise to, and in other ways shape, the changing orientation, structure and functioning of emergent social figurations.

The Eliasian sensitising concept of a triad of controls and relatively open-ended social development enables one to get a sense of intermeshed 'individual' and 'social' processes within

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<sup>27</sup> Elias (1970: 156)

<sup>28</sup> This notion of development and the idea of a stage is an open-ended concept concerned with unfolding social process and level of synthesis in context as against the modernist notion of progress and linear advancement.

prevailing socio-biophysical contexts<sup>29</sup>. This enables insight into how, within prevailing figurations and developing orientations, risks and other problems emerge to impinge upon people in particular ways. What people do and how things change illuminate how historical social processes shape emergent orientation and differentiation in further developing contexts or institutional figurations, not with a rational guiding hand, although a sense of that may come later, but among the intermeshed intentions and actions of individuals in/and groups. These processes simply happen<sup>30</sup> within prevailing social orientation and among shifting figurations, and thus the story develops within and from these social processes. Latterly Elias noted a developing reflexive insight and the beginnings of some social control within and over the trajectory of events. We are in a time now where fewer and fewer things simply happen for and around us so we seek to explain and are often confronted by ambiguities that were not apparent in earlier times. A common error today is the transposition of a rational hand and much of the open-ended ambiguity of our current social condition, into the struggles of earlier times, when things were a lot more 'clear cut' and blind.

To achieve an examination of shaping social processes for the study of environmental education within conservation, I essentially explore the story of the struggle amongst shifting figurations by drawing on historical documents and texts, and my work in the developing field of environmental education. I then examine the social tensions and changing figurations<sup>31</sup> within the vantage point of social process and Eliasian conceptual tools<sup>32</sup>.

For example, how social orientations of controls interact provides diverse *spheres of events* that

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<sup>29</sup> The notion of context as 'together-language' is particularly useful for a sense of socially signified and mediated reality.

<sup>30</sup> This simple point Elias makes so graphically in his works seems to worry many researchers. It is, however, clear and unambiguous relative to the circular discussion it often provokes. In his later works he notes a sense in which there is a rising capacity to influence and to guide events but cautions interpreting things as they seem at the time. History has a way of revealing other things, quite outside articulated intention, in the longer term.

<sup>31</sup> These are identified by looking for threads of continuity and then for breaks and shifts within these.

<sup>32</sup> The Eliasian idea of 'sensitising' concepts' is used here. These come out of the situation and give one a sense of seeing into how things were then and the social forces behind how they have changed now. They thus hold the prevailing orientations as 'facts' in the social contexts of the time; within the prevailing level of synthesis in a developing story.

shape social orientation in the long-term. Elias shows how control-chances within the sphere of events of daily life foster patterns of engagement and distanciation<sup>33</sup> which shape orientation. To illustrate this he states that:

*the less amenable a particular sphere of events is to human control, the more emotional will be people's thinking about it; and the more emotional and fantasy-laden their ideas, the less capable they will be of constructing more accurate models [reality-congruent] of these nexuses, and thus of gaining greater control over them (Elias, 1970: 156, My brackets).*

Elias illustrates how shifting controls are shaped within social processes among the patterning of human figurations within the developing landscape. With this vantage point on historical patterns one is able to examine how social networks emerge from and are interdependent within random events and sedimented patterning of control-chances within the processural stream of social interaction. This provides insight into the shaping of people, their (our) societies and their surroundings within the social processes through which they (we) have come to construct these. A triad of controls, and its associated notions of developing social processes constructing our reality, provides the conceptual vantage point to research how the social figurations and processes in institutional settings in eastern southern Africa shaped the emergence of environmental education in the contexts in question.

Access to these perspectives and sensitising concepts was greatly assisted by Mennell (1989). He describes how the clarification of developing relational dynamics was initially done in [About] *The Civilising Process* (Elias, 1994 [1939]). A social process perspective was then refined and clarified through other works, those of note for this study being *Established and Outsiders*, *Involvement and Detachment*, *Games Theory* and *The Symbol Theory*. These and his other works served to refine and to open up the scope of his challenging long-term social process perspective. *The Symbol Theory* brings into focus the nature / culture double-bind in which we are currently struggling and which is central to clarifying diverse social processes of environmental education.

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<sup>33</sup> For this study I use these terms as sensitising qualifiers of the usual notions of 'involvement and detachment.' Although cumbersome they do lend an important processural quality to what can be seen as static propositions the significance of which is difficult to grasp on a first reading of Elias.

Throughout his life Elias did not deviate from a clarifying mission to open up better vantage points with more refined, open-ended sensitising concepts for humans to understand themselves and others within developing long-term social process. His works have had and are a continuing influence in contemporary sociology within which philosophy still seeks and holds a pervasive classificatory, analytical and validating influence. Elias was steadfast in rejecting the imposition of classificatory categories, notably Figural Sociology. Academic categories can impose an unnecessary distance from an increasingly human-wide, open-ended and developing struggle, making it difficult for people to develop better steering choices with more interpretative insight into the situation within which they are intermeshed. The challenges of the day and the risks that these pose amongst humans in/and their (our) surroundings make it more and more pressing that we develop greater insight and are critically reflexive within continuing civilising processes and the developing risks that these shape.

In keeping with this orientation, I have sought to avoid contemporary academic labels which, although often of value for clarifying developing ideas, shed little light on human social process. In environmental education as a defined field in the 1990's one has little sense of a process character as the process takes on an objective life of its own. This study as an interpretative sociological examination of developing human social processes is centred on processes that shaped the notions of environmental education that we find in eastern southern Africa today.

The emergent story is often allowed to speak for itself with an open ambivalence, and a narrative of interpretative insight is developed with Eliasian sensitising concepts which reveal pictures of process that were shaping of our present conditions and ideas. As these develop in the study an interpretative discourse emerges to illuminate the shaping of environmental education and to raise further open questions for review. Sensitising concepts and orientations to examine some of these developing questions are drawn from other authors who have developed process perspectives, notably Bauman, Kilminster, Beck, Wagner and Popkewitz, some of whom have not read, fully understood or have distanced themselves from Elias on certain issues. This does not detract from the critical value of their ideas, suggesting a healthy process of contestation within developing sociological perspectives.

Just such an open-ended and clarifying contestation continues today on a shifting terrain of struggle for a more sustainable civil society.

## **ix An Eliasian perspective and environmental education**

Within the long-term sociological perspective of the first part of this study, my concern is for insight into the processual reshaping of peoples in/and their surroundings. Attention is centred on uncovering a sense of the social field within the sweep of history and among the interdependent groups<sup>34</sup>, interacting within the shaping processes that gave rise to conservation and environmental education amongst some developing conservation institutions in KwaZulu-Natal.

To reveal this I give attention to changing habits of thinking about surroundings among people figured within the interacting functional strata of the region<sup>35</sup>. I also give attention to how, around the emergent conservation and education institutions, people became bonded together within shifting power relations. To apply this interpretative sociological perspective by attempting to map out, track and interpret key features of these shifting relational dynamics within social figurations, Elias suggests one first considers how:

*the whole figuration of a social field is more or less differentiated and charged with tensions. ....because the social fabric and its historical change are not chaotic but possess, even in phases of greatest unrest and disorder, a clear pattern and structure (Elias, 1994 [1939]:489).*

When confronted with the apparent chaos of the vast and complex social processes in history, my concern is to identify and to examine structures within the social field which, developed within prevailing tensions, led to changing functional differentiation and the emergent orientation of conservation in developing institutional settings. To achieve this I examine some of the key

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<sup>34</sup> Zulu, trekboer and colonial farmers in early history and then with the addition of Zululand conservators, scientists and administrators.

<sup>35</sup> The apparent distance here is counteracted by counting and seeing myself among these figurations and by reflecting on them happening in and around me all the time. It is this that drives the critical interpretative analysis within the project.

'axes of tension' within and among prevailing figurations and ultimately how the processural history of conservation left a *specific stamp* within emergent approaches to environmental education.

To cast light on this pattern, I start with a sketch of some of the social figurations before the emergence of colonial conservation management. I then examine how chains of functions and key axes of tension within early colonial conservation management shaped scientific conservation and environmental education as we have come to know and contest them today.

It is with and within this shifting pattern of human figurations, and their intertwining realities, that I am engaging to seek clarity on environmental education and its prevailing orientations. The purpose of the study is to shine some light on developing environmental education imperatives which emerged to address the rising tide of local and global environmental risk.

The study is thus not a history of environmental education or a work that might neatly be labelled an historical sociology of conservation institutions and their educational activities. It is, however, a sociological study that is centred on key features of the socio-historical shaping of conservation and an intermeshed emergence of environmental education within interacting institutional contexts in eastern southern Africa<sup>36</sup>.

This conceptual overview of the study briefly sketches how the research will address the broader socio-historical setting to identify processes that shaped environmental education as a defined concern by 1980. Numerous developing variations<sup>37</sup> within this, and some of the emergent differences, are then explored through an examination of their relational and processural development amidst periodic breaks and ruptures that take us into present day orientations within environmental education.

It is hoped that this study will provide a clearer sense of 'where we started,' 'what we have got'

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<sup>36</sup> NPB and WLS within Share-Net being examples.

<sup>37</sup> Extension, conservancies, interpretation and wilderness being examples.

and 'the issues we are struggling with,' all of which are key concerns if the peoples of southern Africa (we) are to change in ways that might enable more sustainable living.

This study thus starts with a broader and more long-term examination of the sweep of historical social processes in southern Africa. From the Kingdom of KwaZulu and the Colony of Natal, into and through the apartheid Republic of South Africa and within the transitional democracy of today, it looks to uncover social processes that have shaped the contexts and orientations of environmental education in eastern southern Africa.

In later chapters, the study looks at the Share-Net environmental education resource development initiative, a national earth-love curriculum and research on neighbour relations and sustainable living. The concern here is with more short-term social processes that have given shape to and reorientated many of the resources for and concepts of environmental education. Finally, some of the implications of these processes and orientations are examined in the wider context of southern Africa and within a case of environmental action. The possible implications of a sociological perspective in/on environmental education are then considered.

In a conventional methodological sense, therefore, I am working from a macro-level, long-term sketch of the broad South African setting, historically speaking, through to a micro-level to look into developing institutionalisation processes within a specific region. Then the focus shifts to shaping processes within interacting micro-contexts before, conclusively, it examines interconnections back to a macro level synthesis to shed light on orientations, tensions and ambiguities within developing discursive patterns.

The prime focus of concern is with the shaping and emergence of environmental education within and around the contexts of my educational activities over the last twelve years. To illuminate this, I have centred my attention on reports, documents and historical reviews of the period in question, as well as records of experiences in the field over the last twelve years. These data with the sociology of Norbert Elias, illuminate developing stories within shaping processes in context to shed light on social figurations which emerged to articulate and address

environmental education concerns.

This study might thus be said to examine a sociogenesis of environmental education; its emergence within institutional social processes amongst socio-historical patterns of increasing environmental risk in KwaZulu-Natal. Within this developmental review, I hope that the subtle yet powerful shaping influences of developing social processes will be revealed in the unfolding story of conservation settings, within which the seeds of environmental education were shaped and took root. In later chapters I look at the processes that nurtured, battered and served to shape this sapling further, before reflecting on what we have today and how we might sustain fruitful of socio-ecological problem solving and change.

In approaching this study, my sociological predisposition is to examine the interwoven array of *apparently blind, uncontrolled processes*, in developing and interacting conservation institutional settings, within which environmental education emerged by the 1980's. In doing so I hope to make the orientations, tensions and changes in environmental education *more accessible to human understanding* (Elias, 1978a [1970] p. 145). This sociological orientation and the Eliasian processural vantage point reveals:

*that though the developmental processes of human society can indeed be explained, they have no pre-existing aim or significance. Their only meaning can be that which people may one day ascribe to sequences of events which now seem random and uncontrollable, once they have learned to understand them and control them better* (Elias, 1987a:154).

Herein lies a value claim that developing stories are useful in as much as they shed explanatory light within which we might understand and avoid contradiction and ambiguity in our environmental education activities.

As I approached the enormous task of clarifying the emergence of environmental education in the region, my hope was that the study will cast some light on the endeavour. My purpose was simply to be able to approach education tasks with greater understanding of social processes shaping prevailing models of process and strongly held emotional imperatives within the contested diversity of environmental education in southern Africa today.

In elaborating on the figurations and processes of history, oversimplification is clearly unavoidable. My purpose is neither to articulate nor to simplify the complexities of the socio-political histories of the figurations involved but simply to reach into the stories of past processes so as to derive some insight into the orientations and tensions, and how they might have contributed to the shaping of environmental education in the present.

The features that are touched on and interpreted with the conceptual tools of figuration sociology are elaborated in the earlier accounts from which the data was drawn<sup>38</sup>. Students of environmental history might read these texts and those interested in conservation, any of the more comprehensive texts on this issue. For this study both the histories of conservation and environment are peripheral to my concern for environmental education within these, and most important, the implications of environmental education processes for change to a more sustainable society.

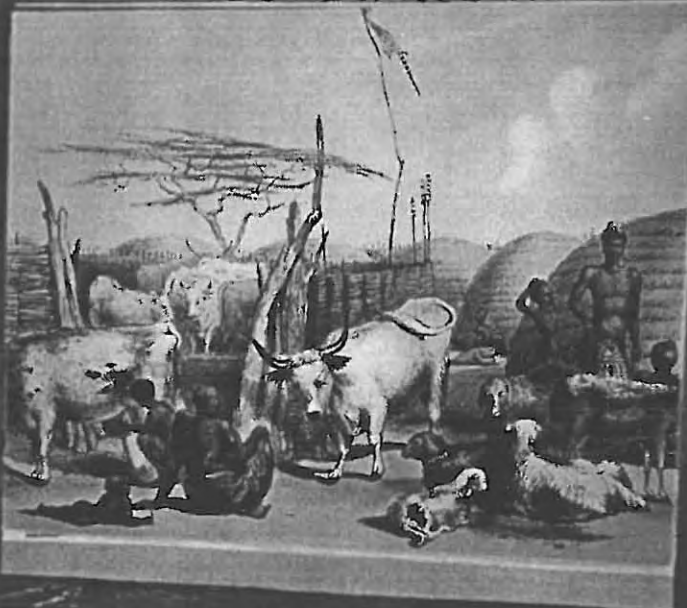
My opening sketches of developing interdependence on the Cape eastern frontier illuminate features of how people met and mixed, and how social processes changed within the open-ended and developing story. These developing social processes gave rise to further risk and tensions amidst continuing change as new social figurations developed, paving the way for a developing story of change amidst longer and stronger patterns of civilising social connectivity. Wherever possible I give readers windows into the past so that the story and its open-ended complexities are revealed rather than told.

The research process continues with an examination of early social processes. This develops with an opening up of the story of Nguni social figurations and wildlife in southern Africa and examines emergent axes of tension as outsiders entered the game from the south.

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<sup>38</sup> For texts on environmental histories of southern Africa I am grateful to Ruth Edgecombe, University of Natal, Pietermaritzburg and Graham Dominy, Natal Museum.

**PART TWO**  
**EARLY SOCIAL**  
**PROCESSES**



## PART TWO

### EARLY SOCIAL PROCESSES

*Following on from a southern African orientation to and an overview of a Process Sociology vantage point, developed in the previous chapter, this first part of the study seeks to examine long-term developing social processes in the region. To approach this, it reaches back some fifteen hundred years by drawing on sources about, and windows into, the past to reveal an open picture of developing social orientation, particularly to wildlife, within the emergent social continuities of the times. A sustained shifting struggle with, and within, wild nature amongst early small tribal functional units is followed into the lengthening chains of tribal interdependence within the emergent Zulu Kingdom.*

*Developing processes of control over surrounding wildlife emerged within closely intermeshed tribal patterns of interdependent social and self control. Key sustaining processes of grassland management with fire, and the hunting and driving of wildlife to control the nagana cattle disease, maintained fluctuating, but none-the-less developing, continuities towards lengthening and strengthening patterns of intermeshing. Ancestral spirits and close patterns of communal social control were shaped and sustained amidst developing patterns of socio-ecological continuity, as the Nguni cattle peoples in the area of the Umfolozi rivers emerged at the centre of the expansive Zulu Kingdom into the 1900's.*

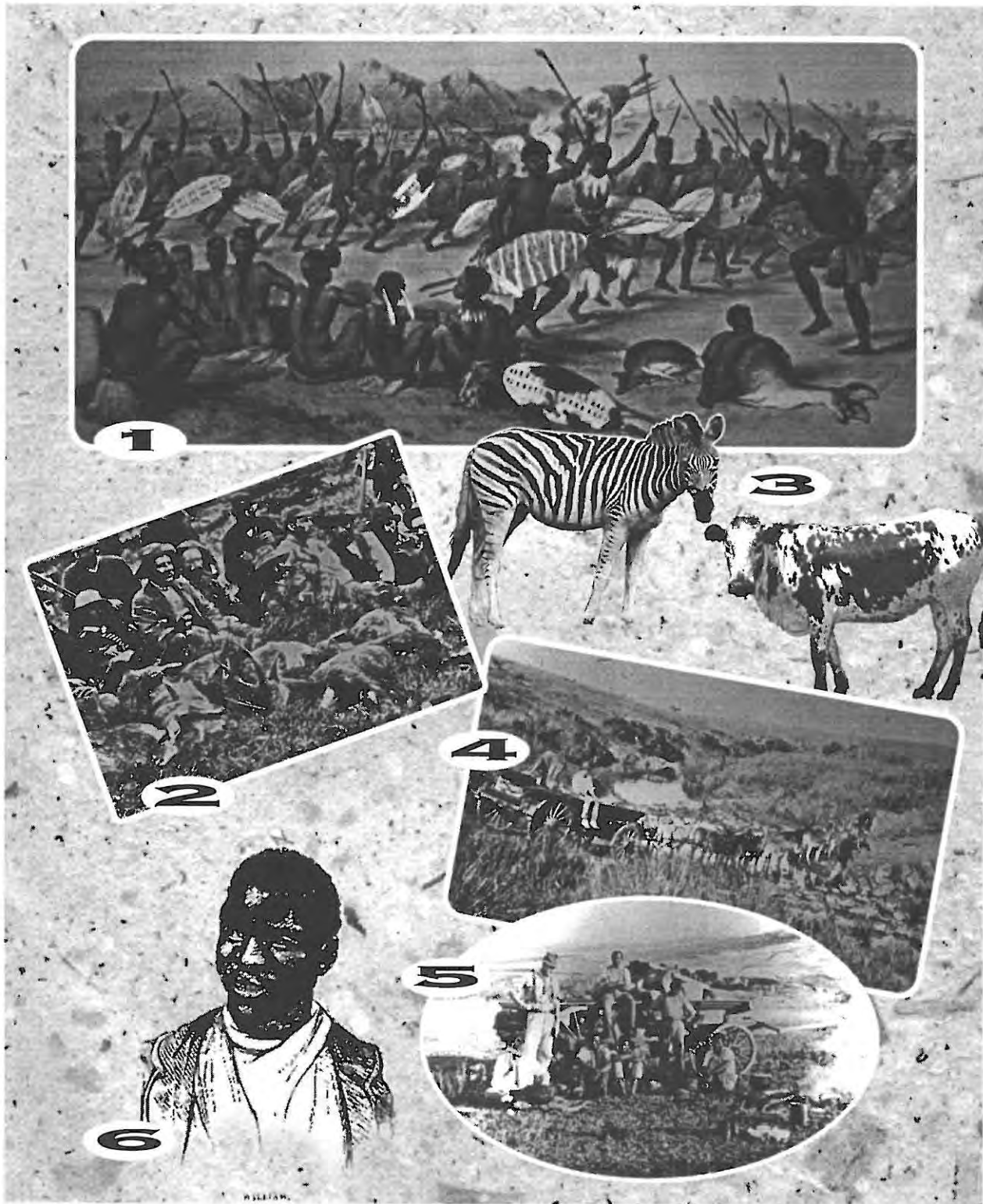
*In delving into this long-term developing story, Chapter Three opens with a review of social processes to expose a sense of developing structure and regularity within these long-term continuities where the hunting and driving of game animals became a sedimented symbolic capital shaping land and early peoples. Into the nineteenth century, within more widely*

*interacting social figurations, the established Nguni tribal mobilisation to hunt appears to have informed and certainly resonates with outsider frontier hunter / farmers who similarly came to value land that had been cleared of wildlife. The established age-old social conventions of clearing the land of wildlife thus continued within patterns of tribal mass-mobilisation interacting with colonial social figurations, new hunting technologies, shifting patterns of interdependence and changing political economies.*

*Early consumptive / antagonistic tribal and frontier colonial orientations to wildlife slowly shifted within sustained socio-ecological disruption and changing processes of social control amidst the widening civilising trajectories of colonial intrusions. Colonial game laws, for example, sought to control / curtail the slaughter of wildlife and to contain indigenous peoples in an idealised harmony amongst wild nature. Other processes of interaction and change led to a sustained struggle for and against wildlife preservation during reemerging cycles of the nagana cattle disease.*

*Within this struggle, examined in Chapter 4, the colonial administrative disposition to preserve wild nature wrought significant suffering and change amongst indigenous tribal peoples and colonial farmers during sustained struggles culminating in the conclusive establishment of nature reserves as the sole preserve of wildlife under the protection of a developing conservation institution. A protracted struggle amongst declining wildlife and the successful eradication of nagana firmly established specialist conservationists with the task of managing protected areas and conserving wildlife in the region as a whole. This processual shift brought on a continuing, reshaping struggle that preceded the emergence of environmental education and is examined in Part Three of the study..*

*Early hunting, 'anti-fly' markings and travel in Zululand\**



\* 1. Zulu Hunt painted by George Frens Angus, mid 1900's. 2. Zululand hunt in the late 1900's. 3. Zebra and Nguni cow (*Inkonekazi eyizikhala zemithi* - Shadows in a forest) with similar 'anti-fly' markings. 4. Donkey wagon of Symons and Jackson crossing the upper Umgeni in 1917. 5. Same wagon outspanned on the road to Hluhluwe. 6. William Ngidi who travelled to Zulu country in 1859 with Ndiwane and Magema, journals in *Zulu recording their daily doings*. (Edgecombe, 1982:76).

## CHAPTER THREE

### To conserve is to hunt and to drive out wildlife

*Long as it may have taken to overcome the idea of the force of nature as manifestations of the intentions and whims of supernatural agents, it is even more difficult to see that many social processes are also unplanned and unintended. ....the intentional sequences of events planned and intended separately by many independent people interweave with each other to produce structured, directional processes of change which no-one has planned (Mennell, 1992:182).*

This chapter explores the shaping of the environment and how early Nguni social figurations were, in particular, orientated to wildlife. It examines these processes amidst developing patterns of social interaction that were to reshape environment and its peoples, and ultimately, give rise to conservation and environmental education as we know them today.

To examine these processes I sought a socio-ecological picture of Zululand prior to 1947 when the Natal Parks, Game and Fish Preservation Board was formally constituted. This point in time was selected as it heralds an institutionalisation of nature protection<sup>1</sup>. Earlier wildlife conservation is said to have been apparent in the 1820's during the rule of the King Shaka<sup>2</sup> and to derive from the establishment of the first game reserves in Zululand by the British colonial administration in 1895<sup>3</sup>.

<sup>1</sup> Nature protection was initially seen as wildlife 'preservation.' The idea of preserving / conserving coexisted with preservation successively falling from use with the advent of conservation science. Carruthers (1994:263) illustrates how conservation as 'hunting restrictions' and preservation as 'game reserves' were the legal avenues for nature protection by the state in the Transvaal; game reserves being places of protection which served to secure control over and access to the resource for particular groups. In the text the defining of these terms is not made explicit. The reason is that, with the exception of smaller, more distant, powerful and increasingly specialist social figurations, the terms and the meaning ascribed to them were not explicit. A manifest lack of 'awareness of' conservation (term / concept), amidst a rising environmental crisis, was to give rise to calls for first conservation education and then environmental education into the 1980's.

<sup>2</sup> The setting aside of part of the now Mfolozi Game Reserve as the hunting grounds of King Shaka (Buthelezi, 1995; Natal Parks Board, 1995b).

<sup>3</sup> One of these 5 reserved areas was the junction of the Mfolozi rivers earlier reserved by King Shaka. (Natal Parks Board, 1995b).

To develop a sense of the processural chronology and some insight into socio-historical detail I read histories, stories and reports about the Nguni peoples and early wildlife conservation in South Africa. An emergent picture of social figurations and orientation was also clarified with Zulu speaking colleagues and in the poetry and stories that they recounted<sup>4</sup>.

Within this interaction among history, story and experience I came across a wealth of interwoven images beyond both the scope of this study and my capacity for synthesis. My key concern was, however, not with these multiple images. It was centred on the social figurations of peoples, emergent axes of tension and a sense of socially shaped continuities, and shifts within these. As orientations and trends were identified, a stream of interconnected themes emerged to reveal an unfolding picture of people, wildlife and conservation in a shifting struggle on / for the land.

The study gives closest attention to developing social orientation amongst the Zulu before examining reshaping shifts in the struggle for and against wildlife preservation into the 1950's (Chapter 4). The narrative seeks to trace and to examine key features of a shifting multiplicity of contesting realities among social figurations struggling with wildlife and conservation issues. Consistent with this orientation, the text of the chapter has been organised as an unfolding story. Little attention is given to specific events and individuals other than where these shed light on social orientation shaped within developing social process. The text thus seeks to reveal how developmental social processes have shaped the way we have come to see nature conservation and eventually also to initiate notions of environmental education within it.

The picture emerges as the text unfolds in a spiralling developmental way, providing vantage

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<sup>4</sup> I am sensitive to the reporting and interpretation of indigenous intellectual property, a right outsiders are often said to have wrested from local ownership. I therefore merely draw on the resonance and clarification of insight that these interactions and discourses afforded me, without directly presenting them in the text. They served to signify and to authenticate features of existing written text (history, biographies, fiction and reports). Here I am particularly indebted to my interactions with Mba Manqele and to her engaging clarification and support in the project. All of the processural interpretations and any errors of emphasis are, however, solely my own.

points that derive from and are imbedded within historical patterns of socio-ecological tension<sup>5</sup> and changing orientation. This enables one to look into the processural tensions of the times, and also to look back on them as things change. In this way one is able to get an open-ended sense of how things have developed in particular ways. The picture that emerges is neither fixed nor conclusive. Processural tensions, shifts and turns continue today. These are shaped by what has gone before and within the issues of the day. A view that *things are as we see them and that others lack awareness* was to emerge in the 1980's and to contribute to education being seen as a process of creating awareness and telling others what must be done.

The way people saw 'environment and wildlife' in the past was very different to how it is seen today. Only through a protracted struggle did the diverse perspectives develop that we share in an increasingly diverse present day. We still have some way to go in the clarification of these. This quest might be advanced with insights into how things were and how they have changed since the times of the early indigenous and colonial peoples of Africa, the theme of this chapter.

Myth and muddle abounds about the dispositions of early indigenous peoples and colonists to wildlife. The colonists have come to be seen as killers<sup>6</sup> and the indigenous as harmonious conservationists of earlier times<sup>7</sup>. These oppositional images are part of a modernist revival of idealised images that has little historical substance, having emerged in a present with little sense of the slow developing struggles and narrower orientations of earlier times. To understand the social context of the control, hunting and consumptive use of wildlife, one has to examine the socio-historical fabric of society and the social processes in/of the times. Of particular interest is the sustained shaping interplay among people, fire and cattle on the grasslands of the east coast of southern Africa.

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<sup>5</sup> This refers to the web of interneshed tensions articulated with the Eliasian notion of a triad of controls (surrounds; social; self) for developing social figurations.

<sup>6</sup> Pringle (1982:31) refers to the *century of the big shoot*, and Buthelezi (1995:3) to the killing of hundreds of thousands of head of game and to the demise of the natural environment.

<sup>7</sup> Buthelezi (1995:3) ...elephant, lion, wild dogs and cheetah, roamed the Zulu domain in symmetry with the Zulu people.

## i The shaping of the environment and its early peoples

The most striking feature of the early history of this area is the way the Zulu nation came to be figured as a resilient tribal kingdom on the grasslands. The grassland environment had successively been won by small social figurations who preceded the Zulu cattle kingdom of the 1800's. Over some 1 500 years developing tribal peoples with shifting agriculture, fire and cattle had occupied and shaped the landscape of the area<sup>8</sup>.

This extended period is characterised by a sustained struggle against wildlife and its associated cattle diseases, and the emergence of larger communal figurations centred on agriculture and livestock. The early Nguni peoples occupied and created much of the extensive grassland of the area. The grassland successively expanded and penetrated the valleys where woodland gave way to savanna under the influence of the interplay of fire and shifting agriculture<sup>9</sup>.

The need for food and the presence of wildlife associated cattle diseases made it imperative that the pastoral people of southern Africa mobilised to hunt. They came to have dominion over, and to protect their grasslands and stock by hunting and driving out wildlife, particularly larger grazing species. Fire and social mobilisation to drive out wildlife did more than simply create and sustain grassland pastures. These social processes became a central feature in how the people came to organize themselves in tribal social figurations. Thus, in part owing to the successful patterns of mass mobilisation to drive out wildlife, and also owing physical characteristics<sup>10</sup> of their hardy cattle and natural processes of immunisation<sup>11</sup>, cattle diseases

<sup>8</sup> Guy (1979:5). Goudsblom (1992:29) provides insight into how, through the use of fire, humans may come to appropriate the land and to create *ecological circumstances beneficial to themselves* within long-term social processes.

<sup>9</sup> Hall, 1978 and 1981.

<sup>10</sup> Through a mixing of the black highland and white lowland cattle in north west Africa, the hardy Nguni developed as the cattle of Africa. Like the stripes of the zebra (Waage, 1981), their speckled hide was a natural defence against the fly-borne diseases of Africa. Here, white underbelly and patchy coloration, which also served to enable the Nguni to know and to name each animal with wonderfully poetic and insightful language, gave the animals protection against the tsetse fly, one of the few fly species that hunts for its host by sight. The 'retreat' of the Zulu from the region of the Umfolozi to the upland grasslands in the south was no doubt due, in part, to the return of nagana amidst tribal disruptions and colonial wars. A contributory factor may have been the establishment of the herds of white royal cattle in the

were contained. The Zulu as an Nguni tribal people, with their cattle (also named Nguni), thus came to be socially figured within the rolling expanse of the Zululand grassland ecosystem.

The Zulu people had intimate bonds on the grassland and with their cattle. Young herders tended their cattle on the grassland, knowing each animal by name and signifying intricate detail of markings. Communal status was associated with cattle numbers and wider tribal linkages were cemented with a bride-price (lobola) also determined in cattle. Control came to be vested in a king with dominion over the land, cattle and widening figurations of people, mediated by consensual social processes within the events that confronted people in the passage of developing communal life together. Close communal ties were shaped within an unfolding and open-ended pattern of long term socio-ecological processes shaping people in/and environment.

A sustained struggle with nature and wildlife developed a utilitarian orientation and an antagonistic disposition to wildlife amongst the Zulu. Within this pattern of developmental social processes a unitary, responsive and resilient people was shaped within the shifting moods of the land and the hardships that this exacted on expanding figurations of tribal peoples. The people came to be held together within a communal solidarity that could burst forth with a united responsive passion in a land that was wont to do the same with periods of intense drought and pestilence. These patterns shaped an orientation where self interest was of little or no consequence within communal needs and will. This character and an economic self-sufficiency was to sustain Zulu social figurations against colonial intrusions for longer than any other tribal system in Africa <sup>12</sup>.

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area. This must remain an open question, along with many others, on a period of our history from which there is little direct evidence remaining.

11 Veterinary science has deduced that the Nguni cattle are resistant to many diseases, particularly ticks. They are also extremely hardy and have many adaptive features that make them well adapted to the southern African region. Much of this is recent scientific knowledge and the discourse on the cattle by the Zulu, besides having a 'male' character, and in ancient royal idiom (an insightful observation by my colleague Lynette Masuku), is dominated by poetic associations around physical characteristics, particularly colour. See Schroeder, 1994 for a detailed account of colours and Zulu names. The Zulu cattle culture is currently an area of revivalist myth making amidst much speculative narrative of indigenous wisdom and sustainable living, another area of many open questions and passionate feelings that is impinging on the emergent field of environmental education.

12 Guy, 1979.

The significant point for this study is that the peoples of these pastoralist figurations had a hunting and driving orientation to wildlife. At times, however, they were dependent on wildlife for their survival, particularly during the drier winter months and in times of drought. This led to the signifying of game species as 'meat' and wildlife / edible wild plants as 'drought foods' (*Mhlozo* - forage food)<sup>13</sup>

## ii A window in/on hunting on a trek into Zululand

I am struck by a coherence of processural interdependence in the socio-ecological development of Zulu figurations, within their grasslands, with a 'mobilising' social solidarity and as resilient peoples. To 'conserve' in the social imperative of maintaining the balance of things (*ukulungisa*<sup>14</sup>), was to hunt together for food, to burn the grassland and to drive out wildlife. Glimpses of hunting dispositions are found in the writings of some young Zulu students who in 1859, after having been educated by the early missionaries, travelled with Bishop Colenso to Zululand to visit *Umpande, King of the Zulus*. They kept a *book of the day* in which they recorded events. Magma writes of John, a driver, under Nozilwa a wagon leader:

*As we were still trekking, John saw a pauw (bustard); he went to it, going stopping, stealing along, till he got near by little and little; he knelt on knee, he fired, he hit it on the wing, it fell; he ran, he caught it, he killed it; we looked at it, we then trekked, we passed on. In the afternoon again he killed an oribe (Edgecombe, 1983:164).*

The writer is totally captivated by the hunt and exhibits a striking literary skill for capturing the event. Undiane also writes about John hunting a bird:

*John got down, he fired; he hit it on the toe, he ran, the bird got up; after that he climbed into the waggon. I saw him writhing himself, and said, 'Hallo! how is it? what is the matter with you?' He said, 'I have been kicked by the gun.' Said I 'Ho! leave off to be continually firing the gun, lest you should no longer have strength for...driving the waggon (Edgecombe, 1982:174).*

The sore shoulder did not discourage John as Undiane later reports towards the end of the

<sup>13</sup> Brooks (1990:81) quoting Maqubu Ntombela.

<sup>14</sup> Kotze (1995:10) drawing on Ngubane (1977).

return journey to the mission school at Ekukanyeni:

*We trekked, we now coming here, home to our people. But John went, he hunted bucks. Said Jojo, 'Why is it that John should go to hunt bucks now? Who still wants a buck now, since we are now going actually home? He shall eat it....by himself entirely. Let us just trek, we, and leave him behind, that he may taste a little going on foot, having been long going by wagon.' Well, we trekked, we reached home at Ekukanyeni (Edgecombe, 1982:179.)*

The authenticity<sup>15</sup> of these writings is apparent in how, earlier on, Undiane gives an account of an embarrassing moment. He reports how, somewhat overcome by the situation and having been away from his tribal home, he forgot his place in the presence of Cetshwayo, stating:

*I stood by the hut, I leaned against it, I forgot to sit down; all the people sat. The young man looked at me, before whom I stood, and said, 'Ho! sit down! are you chief here?' I sat (Edgecombe, 1982:173).*

Besides reporting the experience of returning and the hunting activities whilst on the move with their wagons, the writers also report the start of a communal hunt as they arrived at Cetshwayo's kraal. William writes:

*I reached Emmangweni; I arrived, there being collected all the people, there being carried on a hunting-party, they coming out through a side-entrance (Edgecombe, 1982:182)*

Of the same event Magma also reports key social features in a matter-of-fact way:

*On that day Cetshwayo had summoned a hunting party, it being about to hunt buffaloes; there were then many people at Cetshwayo's kraal (Edgecombe, 1982:166).*

The communal hunt not only served to get food for visitors to the royal kraal but was also an impressive show of strength and possibly, most important, a means of maintaining social solidarity in mobilising everyone for the hunt<sup>16</sup>.

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<sup>15</sup> These writings reflect an honest spontaneity of young people. This was a surprise to me, given that they were records which in all likelihood were to be read by Bishop Colenso. There must have been many opinions and events that they did not report and others, like arguments and mishaps, that they recounted with care and restraint. Given this, the writing reflects an openness and an honesty of a close and mutually valuing relationship with Bishop Colenso.

<sup>16</sup> It is of note that, with the decline and cyclical control of cattle disease, mass hunts came to be the ritualistic 'sport' of the king. Elias would have found this particularly elegant against similar processural trajectories he explored in Europe.

### iii Communal hunting

Ellis (1975:5) records the use of staked pits on these hunts that were held *about six times a year in any given locality and were called by the most important person in the neighbourhood*<sup>17</sup>.

She quotes William Drummond<sup>18</sup> who described:

*...upwards of five hundred men would form a circle driving the game inwards, while those who depended on the speed of their dogs would stand outside at such spots as their experience suggested would be chosen by the antelope to break out at. The poor brutes had thus to undergo the chasing of scores of curs, and then to run the gauntlet of dozens of spears before they reached the place where the fast hounds were stationed, so that it was no wonder that many were caught; indeed, it was extraordinary how many escaped under all these disadvantages*<sup>19</sup> (Drummond, 1875:320).

The communal hunts functioned to sustain figuration and orientation along with, and within, the other rhythms of communal life. To hunt was to get food, to drive out wildlife and, with fire, to conserve pasture and cattle. This was built into the processes of growing up, coming of age and living day by day.

Although these social processes were to undergo significant change into the 1960's, a romantic view of the rural boyhood of Zulu game-guards in Hluhluwe / Umfolozi still echoes with features of the long-term intergenerational and experientially shaped hunting and driving orientation to wildlife:

*In his formative years he and his friends had learnt bushlore by heart. Even the weather held no fear for him. He spent many hours sheltering from the sun under an acacia tree or in the shadow of a placid cow, sometimes cowering behind boulders from a driving rainstorm. Most of the time he and his friends were semi naked. Bird calls were his music and birds sometimes his food. If he was lucky he managed to kill one with a sling or well aimed stone, cooking his prize over a small wood fire in the veld. Zulu boys learnt to hunt from an early age, first concentrating on small prey like cane rats which they ran down with their dogs and assegaied, and later joining in the big hunting parties as camp*

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<sup>17</sup> Ellis, 1975:5.

<sup>18</sup> Drummond, a hunter / naturalist was among the first preservationist voices to protest against *wanton and wasteful wholesale destruction ...for the purpose of immediate gain*, and called for policy to restrict and control the killing (Drummond, 1875:220-221).

<sup>19</sup> Note an undertone of discomfort and disapproval at the destruction of wildlife. This feature is emphasised throughout Pringle (1982) but whilst considering this to be of note, my intention is to emphasise it as a sustained axis of tension where barbarism to a city vantage point, is ordinary, everyday event and social necessity in rural Africa.

*followers (Steel, 1992:26).<sup>20</sup>*

This 'outsider' image of rural life both illustrates change and opens up a utopian timelessness for the romancing of Zulu tribal life that was to follow. Also of note is the idea of the 'noble simplicity' of rural life socially constructed during colonial times. Sikhakhane, a game-guard in the Umfolozi reports on the game-pits of Shaka's ceremonial winter hunts, probably of later years when there was no winter military campaign.

*Regiments (amabutho) would be summoned and would drive the game for miles around, ...the pits were very deep. ....the lines of beaters on either side acted as 'fences,' driving backwards and forwards, the animals that managed to escape the pits. Game falling into the pits would be speared to death. Anyone hunting unofficially would be killed. For the same offence nowadays the Whites lock people up (Hall, 1977:11).*

The image of mobilising communal hunters is not fixed but is responsive within an open-ended communal social processes given shape and voice within the developing events in the times<sup>21</sup>. In the large social figurations of the Zulu monarchies, here, hunting took on a more ceremonial function in periods when cattle disease may have been under control<sup>22</sup>. A similar mobilising responsiveness in the moment is apparent in an open spontaneity of indigenous communal singing and in praise songs and poetry that create, capture and captivate people in the solidarity and excitement of the communal hunt..

When one pulls these processural threads together it becomes clear the indigenous peoples essentially 'created'<sup>23</sup> and clearly sustained and extended the grassland with cattle and fire, but

<sup>20</sup> Steele's idealised and somewhat romantic account of the early life of his game guard colleagues was selected as its reflective view of The Other, wild and free and learning in nature was to become a key narrative in environmental education; the adult in the wilderness reflecting on youth with a nostalgic sense of loss in the youth of the present and a connectivity with the youthful experience of the indigenous people of Africa. Many of the game guards I have had the pleasure of knowing reflect similarly on their boyhood experiences and have many hunting experiences, as I also do.

<sup>21</sup> This open endedness of response and change within large figurations and lengthening chains of connectivity is of particular note.

<sup>22</sup> It cannot, with any certainty, be established that the tsetse fly disappeared from the region. The Nagana cattle disease did, however, erupt with the collapse of the Zulu social system, the return of the game and the re-development of woody vegetation.

<sup>23</sup> Lighting is offered by ecologists as the natural process that shapes and maintains grassland but there is no clear picture on the relative impact of the 'hand of nature' and the 'hand of man.' For other figurating features of fire that are beyond this study, but might cast light on human

not in a conscious and strategic way that scientist / farmers might do today. The cumulative effect of intentional and relatively blind processes drove back the bush to watery glades and river valleys making the place more habitable to pastoral people. These developing processes provided grass for the cattle and also reduced the cattle diseases associated with the tsetse fly by reducing the dense bush in which the fly thrived<sup>24</sup>.

These changes and social processes also enabled wildlife to thrive. This occurred in an oscillating pattern of 'disease and conflict' and 'a saving source of food in times of drought.' The apparent paradox here was simply a shifting rhythm amongst times of drought, plenty, plague and peace<sup>25</sup>. This was the way of things and within these processes the people came to be figured as a tribal kingdom<sup>26</sup>. Within these intermeshed socio-ecological processes, people were also shaped, developing dispositions and orientations within the developing processes through which they came to be held and sustained in shifting social figurations amongst emergent socio-ecological tensions and widening connectivity.

#### iv An interpretative picture of developing wildlife orientation

The Nguni cattle kingdoms<sup>27</sup> had thus 'naturally' been in a state of war with wildlife,

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agency and fire see Goudsblom (1992).

<sup>24</sup> Guy, 1981:5; Ellis, 1985:72.

<sup>25</sup> Peace amongst people, and peace as interludes without pests and wildlife, may have gone hand in hand. This must remain an open question and beyond the scope of this study.

<sup>26</sup> Here one should not make the error that, over time, 'what came to be figured out by people' led to people becoming figured in particular ways. There is an element of 'conscious intent' in a sedimented sense of this as right and proper. Elias is, however, at pains to point out that it is only relatively recently that we are exhibiting a capacity to organise ourselves within the processual streams of everyday life, and then, only in a very limited way. This becomes an issue in environmental education into the 1990's.

<sup>27</sup> Here I am conscious of similarities amongst the Nguni but also of significant environmental differences outside of the Nagana areas, and where grassland gives way to other habitats that are less amenable to large pastoralist figurations. See Robertson (1977) for an account of the *great herds of game* in the interior, another area where developing processes appear to have been different. Here, grasslands are assumed simply have existed in climax form with abundant game, rather than having been wrought by fire and cattle in opposition to wildlife,

especially in the early times and when figurations became larger and / or ranged closer to wild game lands of the valleys that were not always amenable to cattle. Then the people had to 'work harder'<sup>28</sup> with fire and cooperative game drives to clear the land of game and disease to make way for and to maintain a close economy of grass and cattle<sup>29</sup>.

Hall (1978:15) reports on the development of larger social figurations and on seasonal processes during which upland grasses were used in summer and valley thornveld in winter.<sup>30</sup> He also notes how the junction of the Black and the White Umfolozi became the *heartland of the Mthetwa in the late eighteenth century*. It was to be here that the development of wildlife conservation and early wilderness environmental education was to be played out into the 1960's.

The developing picture that emerges is of dynamic and shifting social figurations amongst grassland and cattle, for the maintenance of which, fire and the mobilisation of people to drive out wildlife were key processes. The Zulu were thus able to maintain a 'communal fortress on the land' where mobilising hunts <sup>31</sup> and outlying huts kept the wilderness at bay in much the same way as other expanding civilisations.

These early figurations and orientations to wildlife / environment are loosely shared amongst indigenous African tribal communities like the Xhosa, given differing regional and historical

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especially in the Nagana areas. This and a short, mid 18 century colonial frontier economy of wildlife slaughter are the foundations of *The conservationist and the killers* dialectic of Pringle (1982), and the later inversion around notions of indigenous sustainable living.

28 Not in a conscious way as we might suppose.'

29 This is apparent in how the area of the Umfolozi and further north became the frontier of contestation among conservationists, native commissioners, indigenous peoples and colonial farmers, with the rapid return of tsetse fly and cattle disease examined in the next chapter.

30 In doing so, he brings into question earlier interpretations of Zulu economic and political history, leaving a number of possibilities open-ended. His open questions resonate with the changes that were to follow and with some of the open possibilities of change today.

31 See Hall, 1977 for an account of the Shakan game pits at the junction of the White and the Black Umfolozi.

developmental patterns and relational dynamics.<sup>32</sup> Features of these orientations were also taken up by migrant pastoralists of the Cape Colony who became the Trekboers. This happened through a sustained intermingling among cattle peoples of the subcontinent<sup>33</sup>. The acquisition of this and other expertise enabled the Trekboers to move throughout the subcontinent.

If, as is commonly believed, the disappearance of wildlife led to a struggle for its preservation, it is somewhat surprising that the Cape did not more firmly establish game reserves long before the developing struggles for wildlife preservation and the game reserves of Zululand<sup>34</sup>. It is also striking that Trekboer and Xhosa did little else but note the disappearance of game<sup>35</sup>. The decline was noted by all, particularly hunters who moved further afield and sport hunters whose excesses were hardly remarked upon at the time<sup>36</sup>.

Carruthers (1993) explores how the exploitation of wildlife was a key process in the

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<sup>32</sup> A review of these has had to remain beyond the scope of this study. See the works of Peires for details on Xhosa communal life and developing history. His works on socio-political processes is particularly incisive. Of particular note to me was a turn in hunting processes where a young girl took the part of the game to be hunted while the men played the hunters (Peires, 1981:5).

<sup>33</sup> Mostert, 1993:Part Two.

<sup>34</sup> In 1657 the Dutch East India Company made laws about the shooting of birds and animals within the rigorous politico-economic controls they exacted over settlers at the times (Pringle, 1982:14). I found no early evidence to support the notion that, simply noting the disappearance of game, people and governments started wildlife protection in nature reserves. Somerset's Cape Game Laws of 1822 are noted as significant by Carruthers (1994:266) and dismissed as having been ridiculous by Pringle (1982:35). They do, however, reflect a slow and developing response to disappearing wildlife. Of particular note in these early laws is an ambiguous provision allowing travellers, presumably the Trekboers and colonial traders, to hunt freely on the road. The pragmatic socioeconomic and political features of wildlife laws and the idea of conservation as a response to species extinction and resource degradation was to be lost as the developing process was institutionalised as a thing mediated by scientists and seeking to make others aware through education.

<sup>35</sup> Mostert (1993:599 - 601) highlights a reverence and a developing regret amongst trekboer and Xhosa at the loss of the elephant. Carruthers (1995: 10 -11) reports on Cape regulations and on how in the Transvaal early processes were early political exhortation seeking to avoid waste and developing regulations to secure the dwindling resource, particularly against outsider access. Early on outsiders were both indigenous African peoples and the increasingly intrusive British.

<sup>36</sup> It was only much later that the horror stories of mass slaughter became a way of whipping up a pro-conservation hegemonical fever. See Pringle (1982:31-44) for an account of the *Century of the big hunt*.

establishment of trekboer social figurations and the establishment of the Afrikaner states. She sheds light on early orientations to wildlife in dispelling the myth of Paul Kruger as conservationist fighting to set aside land to save wildlife. She quotes Kruger as reporting:

*...it was our task to clear the recently-acquired land of wild animals, which had hitherto roamed about, unrestrained, side by side with the wild races<sup>37</sup>, and thus protect our pastures. Every boer took an active part in this work, and the rising youth ...did a great deal in this way to make the country habitable (Carruthers, 1994:266).*

This and the early somewhat off hand treatment of the disappearance of wildlife, as if of passing concern but tinged with a sense of possible future significance<sup>38</sup>, suggests that the disappearance / dispersal of game was, at the time, not an undesirable frontier feature, particularly for figurations of predominantly cattle people, Trekboer and Nguni alike<sup>39</sup>. It was a sign of dominion and a civilising of the land that made people feel secure.

The early rolling back of a frontier of forest and wildlife was thus not necessarily new and colonial. This had been for many centuries sedimented in the ways and images of the peoples of southern Africa. That the process worked in reverse at times, rolling back hard on them

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<sup>37</sup> It is of note that although the 'wild races' were similarly disposed to clearing new lands of wildlife they were still seen to be surrounded by it. Guy (1979) casts some light on this, noting that the Zulu seldom needed to go into the wooded river valleys that tended to be frequented by larger game, thus appearing to have been surrounded by wildlife. In both the early tribal and trekboer figurations there was no conscious sense that we must keep the wildlife out. This was simply done by periodic mass mobilisations to hunt and the continual hunting that was the pattern of early social processes in those times. When the wildlife disappeared people were happy unless there was a drought, or when it diminished they moved on. And this pattern is apparent way back amongst San hunters and gatherers, although now very difficult to see through mystical embellishments that have recently been woven around peoples of early times.

<sup>38</sup> The dominant sense I derived from all of the texts encountered was initially one of change for the better and advance but with a slow, and much later, developing concern for the protection of economic opportunities. This was to change within a developing emotional surge as a fascinating interdependence developed as an ecstatic element of religious proportions within a developing earth-love education into the 1990's. This developing process is one of the developing threads of environmental education examined in Parts 2 -4 of this study.

<sup>39</sup> Despite repeated assumptions and assertions of difference amongst black and white, indigenous and colonist and now Western and African, I have found more evidence of similarity in early common sense processes of clearing land and subsistence hunting, and as these developed a commercial orientation within widening trade in wildlife. Carruthers (1995:7 - 23) provides an unfolding account of aspects of these processes, with particular reference to the Transvaal. Without falling into the trap of assumed difference she leaves many issues relatively open-ended, pending further evidence and allowing for considerable variation as processes became more and more diverse in developing stories of conservation.

during times of drought and cattle disease<sup>40</sup>, shaped strongly socially bonded, resolute and resilient peoples. That the processes accelerated within widening and differing developing struggles amongst colonial intrusions with more people and within rapid modernist change is a story mirrored all over the world within developing, more global intermeshing this century.<sup>41</sup> Continuities within developing indigenous and colonial trade are an important part of this developing story.

## v Trade and the changing value of wildlife

Early on, key change in the value of wildlife would appear to have been a subtle shift in the Zulu disposition to wildlife. This occurred over an extended period during which the value attached to wildlife changed. Interactions with colonial hunters contributed to this change and wildlife acquired a new value beyond food in hard times.

That something similar did not occur in the Eastern Cape may have been that the Xhosa had secured their cattle lands and that the wildlife was in the wilder region in the south<sup>42</sup>. When the Xhosa intermingled with the Trekboers they met pastoralists and hunters. Early on they were even allies who shared a similar disposition to excesses of the dreaded San hunter-gatherers of the wilderness. There thus appears to have been a different set of processural events that did not develop a political economy around wildlife as apparently happened in Zululand<sup>43</sup>.

<sup>40</sup> Hely-Hutchinson is quoted as remarking of the rinderpest, "*Zulus who have lost cattle feel their losses deeply, but according to latest reports there is no sign of unrest or disturbance amongst them.*" (Unterhalter, 1978:67)

<sup>41</sup> Here I am not trying to diminish difference noted in other texts but to look at the developing processes in wider and more long-term trajectories of human struggle to get a sense of the narrowing turns of current discourses of difference. These texts have been written in a 'retreat into the present' and within dialectic conventions shaping narrowing stories that do not sit well with, and are less and less useful for examining, the challenges that currently face human kind if we are to continue to exist in pleasant surroundings and peaceful company on this planet.

<sup>42</sup> Even today the contrasts between the rolling grassland of the former Transkei and the valley bushveld further south and west are apparent to travellers.

<sup>43</sup> Also, of note is that this shift in orientation to wildlife occurred in and after a period of intense turmoil and social change that saw the creation of the Zulu Nation and the celebrated royal hunt in the Mfolozi, the game pits for which are still visible today (Natal Parks Board, 1995b).

The economic orientation of the Zulu was, at the time, one of independence and self-sufficiency not unlike most early African tribal state figurations. It was different in a sense that it remained more resilient in trade with colonists for significantly longer than other groups<sup>44</sup>. Economic independence, communal self reliance<sup>45</sup> and solidarity was such that the Zulu did not readily become wage earners on colonial estates or in industry<sup>46</sup>. They were held together and self sufficient on the land in a web of homestead figurations each of which was:

*a place where Zulu man and women consumed the products of their own labour, which provided the means of subsistence and reproduction of the homestead (Guy, 1982: 18)*

Without directly contesting the significance of this early communal self reliance and economic independence Colenbrander describes changing trading chains of connectivity first north to Delagoa Bay and then south with the Natal colonial hunters<sup>47</sup>. It was, however, probably a growing value of wildlife to outsiders that led the Zulu king to monopolise these economic opportunities<sup>48</sup>. This monopolisation and control of all aspects of life was the trajectory within the figuration of the time.

Of particular interest is how, despite the closed and tight social control exacted by the monarch at the centre, things loosened up on the frontier where trade was less regulated<sup>49</sup>. Also of note is that trade around local and seasonal needs remained loose and informal<sup>50</sup> without being formalised as trade routes or trading posts like elsewhere. At most, change may have simply been an increasing regularity of routes and frequency of visits.

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44 Guy, 1979.

45 It should be noted that this was a feature of the times shared by Trekboers amongst others.

46 When this initially began to happen it was done within the tribal administration with a share of earnings going to the king (Guy, 1981).

47 Hall (1978:13) contrasting ethnographic and historical accounts of the Zulu, reports that trade preceded colonists north and south suggesting an existing competency in this activity and lengthening chains of connectivity.

48 Ellis, 1975:2.

49 Colenbrander, 1985:109.

50 Guy, 1979.

Within and through this extended period there was a slow and sedimenting pattern of change in disposition to wildlife. Earlier ivory trade with Delagoa Bay and the rapid expansion of the Zulu tribe into a much larger nation under King Shaka<sup>51</sup> appears to have accompanied a shift in the political economy around wildlife. This occurred within a pattern of longer and stronger social control in a much larger figuration, and in contact with colonists to whom wildlife trade was a primary economic activity. The earlier wildlife 'problem'<sup>52</sup> necessitating communal drives was, with a subtle shift in orientation, to come to have an incidental economic significance. The communal hunt, as mentioned earlier, was similarly to undergo a subtle transformation into a means of demonstrating power to outsiders and of maintaining social solidarity and the centralised power of the king<sup>53</sup>. To hunt and to control hunting was to sustain the figuration.

With the apparent control of cattle disease after centuries of fire and driving out game, the mass mobilisation communal hunt was becoming less of a necessity and more of a military sport. It also remained a means of inducting youth into adulthood. The hunt was a way of identifying and rewarding bravery and leaders according to individual and group success.

This is notable in the traditions of the hunt when an animal is wounded it is 'marked' and claimed as the property of he, or those who wounded it. Other hunters would leave a wounded animal if it passed them, and would continue the hunt until they found one that had not been 'claimed.' The Umfolozi hunting grounds of the king were also a sacred area where the iron smiths worked and were thus shrouded in a myth and mystery that exacted a social control and a solidarity consistent with other closely intermeshing features of Zulu communal life.

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51 Within this there were numerous ruptures and breaks with some chiefdoms driven and opting to move away and to colonise other parts of southern and central Africa. Notable amongst these is Mzilikazi who, after confronting the Boers in the Free State, moved on through Botswana into what is Zimbabwe today.

52 Of particular note is Guy's interpretation that cattle disease was essentially under control during the Zulu era, as this would have softened the urge to drive out wildlife and enabled a shift to an exploitative tolerance and the protection of species of big game that came to have an economic value.

53 Readers should not see these shifts in orientation as something that was 'thought out' and then done. These were changes that were simply wrought in the changing pattern of processural events.

The developing pattern of social connectivity, emergent tension and intermeshed trajectories served over time to maintain and yet to shift the social perspective on wildlife. This essentially aligned Colonist and Zulu in a connectivity within which to conserve was to hunt<sup>54</sup>. Early on there was no call to count a possible ecological cost as this simply did not enter into the issue for outsider and insider alike. Within a lengthening and intertwining of social figurations that went with this, however, were wider forces and changing patterns of reflection that were to come into play to change all that. Just as changes in early dispositions and orientations towards wildlife were shaped in a sustained long-term social process, so these changes were to reshape orientation within continuing struggles for economic benefits, survival, land and political power.

The Zulu king was constantly at work maintaining a tightly controlled social figuration as widening economic chains of connectivity brought in colonial government administrators, following the war of 1879 and the civil wars that preceded British annexation in 1887<sup>55</sup>. Political and economic change heralded a shift in the fluctuating wildlife trade from its heyday in the 1860's and 1870's. Longer chains of connectivity and the British colonial administration brought the game laws and game reserves which, in turn, led to a struggle which was to bring about significant change among both Zulu and Colonist alike. Prior to this, however, to hunt was common sense.

To tease out further intricacies of this relationship of people in environment is beyond the scope of this study and I reserve this challenge for another time. Suffice it to say that there is enough evidence to begin to reflect on sedimented utopian post-colonial and modernist orientations which today are wont to paint the Zulu as conservationists who lived in conscious and ecological harmony with, and in, wild nature. And the colonists as wanton exploitative killers of wild game. Both were simply orientated within the shifting processes of the times; processural change which brought on rapid socio-ecological change and developing

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<sup>54</sup> This does not suggest that they were not also locked in a struggle for the land.

<sup>55</sup> Also significant within these figurations were the Boers, but their direct influence on the pattern of change was limited to their hunting activities in the north. This was, however, to be significant in advancing the spread of Nagana with the increase in wildlife and changing patterns of social control with the collapse of the Zulu kingdom.

environmental tensions that reach into the present. The socialised orientations of Africa were to be in tension with those of Europe in Africa and rapid modernising change on a global scale.

## vi Utopian myth and administrative muddle in Zululand

As illustrated earlier, the Zulu had been successful in a sustained struggle against / in nature. The uncluttered simplicity of this location and relationship had been admired by early colonists. When the 'European eye' of the colonial administrator arrived, the image of simple and healthy indigenous peoples surrounded by cattle and wildlife were there to behold. That which had been dynamic and processural was seen as fixed and timeless in the administrative mind; a people to be preserved, controlled and civilised within a new Imperial order<sup>56</sup>.

Thus, although the Zulu peoples had developed an antagonistic, utilitarian and exploitive orientation to wildlife, they came to be seen by colonists as among, and at one within, wild nature on a wilderness landscape; noble savages<sup>57</sup> in a savage land. A developing administrative disposition to control, change and yet to preserve natives and wildlife thus came to be sedimented in the administration.

At first the colonial administration was simply to oversee and to ensure order<sup>58</sup>. This was superseded by more direct and forthright administration in a pragmatic interplay of local interests and those of King and Empire. Simply put, it was in the interests of local people to have wild game to which they were accustomed and it was in the interests of the colony to profit from trade in an already declining wildlife resource; hence the promulgation of wildlife laws.

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<sup>56</sup> This orientation and contradiction was at the root of much of the early myth and muddle, not helped by a desire to keep the peace whilst they dealt with the troublesome Boers.

<sup>57</sup> This proposition has been so pervasive that it remains a powerful hegemonical influence today.

<sup>58</sup> Unterhalter (1978:60) illustrates how the social impact of controls and administration by omission, within the succession of socio-ecological disasters, somewhat blindly served to enact the shift in power to colonial capitalism.

The commonly held idea that the Zulu resisted colonial wildlife preservation<sup>59</sup> and thus simply became poachers when game laws and reserves were imposed by the British colonial administration needs close examination. Osborn, an early administrator, on the sensitive issues of enforcing the Natal Game Laws without upsetting the Zulus<sup>60</sup>, is reported to have replied that:

*he did not anticipate any difficulty in enforcing it for the Zulu were: "already aware of its existence and they were accustomed to restrictions in the killing of certain descriptions of large game during the reigns of Mpande and Cetywayo. They would understand the explanation of the Magistrates that the intention of the law is to protect ordinary game during the breeding seasons in order that they might increase and become more plentiful for use of the people during the proper seasons." (Ellis, 1975:15).*

He proved to be right in this assertion but what the British administration could not have known was, within this rationale of 'optimising of the bounty of nature' was a latent contradiction in the then socio-ecological context of Zululand<sup>61</sup>. It was simply not common sense for cattle people to preserve wildlife in this way in Zululand. The myth and muddle of noble savages and optimising the bounty of nature were contradictions which were to contribute to the reshaping of the Zulu people<sup>62</sup>.

That it simply was not common sense for cattle people to protect the game and to allow the bush to grow back was beyond the comprehension of the administration<sup>63</sup>. It responded to

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<sup>59</sup> Process-reducing narratives tend to 'paint' the indigenous people as hunters turned poachers in opposition within struggles against colonial game reserve conservation, a Eurocentric notion of hunting estates imported to, and imposed in, colonial Africa. This popular post-colonial theme is by no means a clear-cut issue and merits close scrutiny especially where within socially critical research it can be shaping of narratives seeking to liberate indigenous peoples by reinstating processes of sustainable living which were destroyed during the colonial era. An example of this is discussed in chapter 10.

<sup>60</sup> After the Zulu wars the last thing the British wanted was trouble in Zululand as they had their hands full with the Boer Republics.

<sup>61</sup> Ford (1971:8) on Trypanosomiasis asserts that those involved in imperial expansion had little sense of what they were caught up in.

<sup>62</sup> Here I emphasize one thread of interaction. See Unterhalter (1978:63) for a sense of the shifting power relations amongst administrative intrusions and responses to the succession of socio-ecological disasters that beset Zululand in the later 19th century.

<sup>63</sup> The case may be that the association of wildlife with disease was such common sense to indigenous peoples that it did not bear mentioning amongst a world of contradictions that assailed them with increasingly pervasive colonial intrusion, although these could, early on anyway, be ignored much of the time. What could not be mentioned because it was simply the way of things conflicted with the colonial idea of simple indigenous harmony with

communal requests by allowing / rejecting hunts so that the people might be controlled / well fed on wildlife<sup>64</sup>. And the bush might remain wild and the wildlife thrive along with the people.

As the bush grew back and the game returned there befell disaster after disaster on the Zulu Kingdom. Rational accounts fail to capture the complexity of this socio-ecological change<sup>65</sup>. The shift in power to colonial administrators / magistrates changed the patterns of human interaction. It brought sustained and ad hoc administrative efforts which sought to engineer, or simply overlooked by omission or design, issues and events that affected 'the Other<sup>66</sup>' in its charge. In this case a pattern of sincere, bungled and disinterested colonial endeavour to control / preserve Zululand as an area where people coexisted with bountiful wildlife spelled disaster for both the wildlife and the peoples of the area.

This error cannot be put down to a colonial conservation system that imposed nature reserves. The colonial conservation image was wildlife harmoniously preserved with people who were contented and quiet. Conservation of wildlife was, however, to be shaped within a sustained struggle to look to the welfare of people and wildlife<sup>67</sup>, not to exclude either<sup>68</sup>, and not openly to deprive or to suppress, at first anyway. Here I do not make the naive assumption that there

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wildlife, and was simply beyond being understood by anyone in the times. Elias often makes this point of people intermeshed in developing social process.

64 Supervised hunts were either acceded to, or rejected, depending on conditions and the abundance of wildlife, all within reasonable bounds in the eyes of the administration, and later, under a war of words with Warren in Pietermaritzburg with links to Vaughn-Kirby in conservation in Zululand. See Brooks (1990) for an account of this.

65 A reflexive rationalisation makes the error of imposing an assumption that what happened in history was latently rational and that this intent perpetuated a successive suppression and engineering of people.

66 This shift and the social construction of a sense of 'Other' is foundational to a later disposition to educate, and underpins early notions of environmental education.

67 The colonial policy was an ambiguous interplay of trying to keep the people happy so as to avoid further wars. Wildlife preservation and the selective approval of hunts was an early means of attaining this and keeping the people happy and at the same time ensuring that the wildlife would not be lost. This colonial administrative logic has subsequently been revealed as a period of myth and muddle that was to contribute to the socioeconomic collapse of the Zulu Kingdom. Key political, social and economic features of this are developed in Guy, 1979.

68 This distinction and the exclusion of people was to emerge within reserves and in scientific research over an extended period, somewhat later.

was not, from the outset, a domination and control intent and trajectory, and that this did not have developing consequences amongst indigenous peoples. What I want to avoid is current process reducing assumptions that a rational hand of colonial, apartheid 'Western' domination and suppression caused what happened and where we are today.

Many colonial administrators / magistrates allowed periodic communal hunts and were also lenient on 'poachers,' much against the wishes and to the vexation of game wardens, colonial hunters and emergent preservationist ideals. Ironically, the supervised / selective approval of hunts and leniency in allowing *mhlozo* (forage-food in times of drought) simply advanced the radical social change that was already under way in changed power relations within differing social figurations.

Not long after the first five game sanctuaries were created to protect wild animals<sup>69</sup>, the noble savage dimension of the colonial wildlife preservationist dream was in tatters<sup>70</sup>. A confidential dispatch in 1897 stated:

*Impossible now hope to preserve the native in their sylvan simplicity. Rinderpest<sup>71</sup> has robbed them of their wealth and if they want to marry and become well to do they must go and labour on the goldfields (Unterhalter, 1978: 68).*

The disruption of tribal structures through the colonial wars and occupation was thus the end of

<sup>69</sup> Ellis (1975:22) reports the proclamation of the Pongola game conservation area for Boer hunters in 1895. This and preservation ideas in central Africa appear to have influenced the proclamation of five reserves in Zululand. She also reports that there was little public interest in this event. Brooks (1990:66) reports Pringle's account of how the proclamations were influenced by the shooting of 6 white rhino at the Umfolozi Junction.

<sup>70</sup> It should be noted that this practical demise of the noble savage ideal was essentially part of a decoupling revival and continuing romancing that may have made the idea even more pervasive, it no longer having any grounded mediating social arena. The idea has served to accentuate difference within the dialectical discourses of racial conflict and scientific enquiry. A discourse of difference separates and decodes of it sediment within society as the disposition for making meaning in social situations. The significance of this shifting orientation dispels the notion of the emergent social order having been engineered by colonial processes. That clear patterns and orientations are apparent does not mean that there was always a guiding hand of exploitation / suppression at work. This is, however, a significant point for reflection as we deal with the problems of the day in our country in transition to a fledgling democracy. To blame and to claim an engineered suppression is often to lose sight of people caught in a struggle together and needing to make adjustments to enable sustainable living with a good quality of life.

<sup>71</sup> Virulent disease that spread throughout the subcontinent killing game and cattle alike.

close tribal figurations among the cattle grasslands and wildlife rich valley habitats of Zululand. During a further period of cattle diseases and mass game drives, the wildlife was to come to be contained in game reserves, and the orientations of people were to be radically reshaped within this struggle.

There can be little doubt that wildlife and the cattle diseases associated with it was a sustained axis of tension in the shaping of people on the land. A stable, although fluctuating pattern of social control had been achieved. This was subject to ruptures during periodic droughts and cyclical pestilence, particularly the tsetse fly and the associated nagana cattle disease. That this fluctuating equilibrium and long term socio-ecological struggle was ultimately lost with the collapse of the Zulu Kingdom,<sup>72</sup> within the sweep of historical processes, is both tragic and an injustice,<sup>73</sup> but none-the-less a significant reality. Within this, further struggles emerged among changing figurations.

A commonly held perspective that indigenous cultures embodied a self-contained socio-ecological continuity, sustained with subtle adjustments to environmental stress and remaining substantially unaltered over the many years needs close scrutiny<sup>74</sup>. Guy (1979:5) suggests this of the Zulu and tends to place them as something special and beyond our grasp today, but concludes with a position that is critical of both rational simplification and elevating mysticism. Although much must remain beyond our grasp owing to oral traditions being without written accounts of life in the times, evidence of cyclical outbursts of social turmoil and the struggle to develop and to control lengthening chains of connectivity, expose a changing political economy. Within this, developing tensions and emergent patterns of social

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<sup>72</sup> As indigenous social control lapsed, wildlife and diseases increased to the point of being catastrophic to the people.

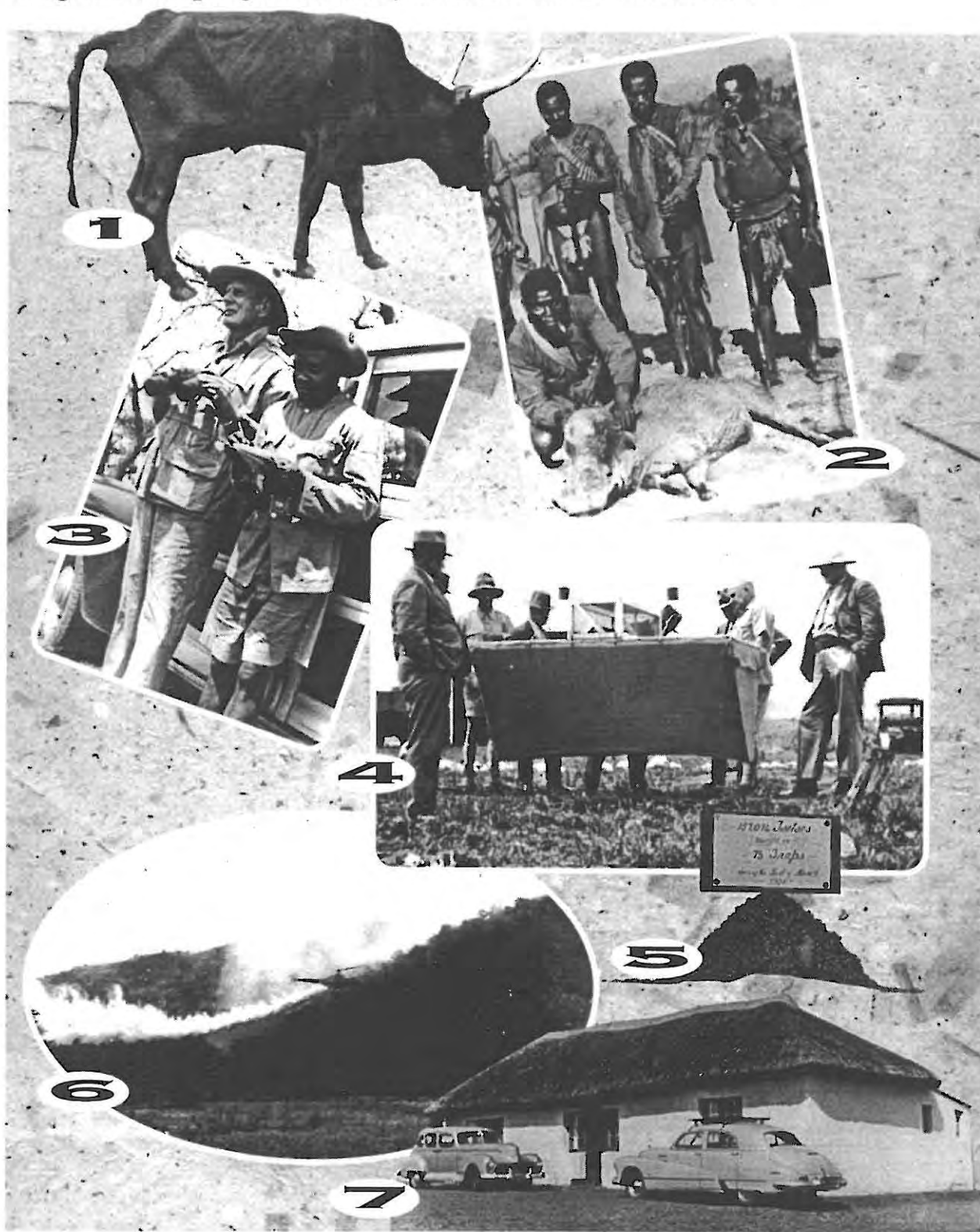
<sup>73</sup> These all too prevalent notions emerge within an inversion of a colonial utopian paternalism that either seeks to make amends and to salve its conscience, or to maintain itself in a continuing struggle within a shifting political sociology of change today. To this study the shaping struggles in the times are the key issue. My concern is with how the prevailing orientations and events shed light on the development of environmental education in the region.

<sup>74</sup> Here the mysteries of lost tribal myth of oral tradition are used in mystifying rationalist revivals to reshape decoupled fantasies within a reflexive romancing to develop compelling new myths for ecstatic social control within close figurations of involved environmentalists. This process image is carried forward as a sensitising concept within the developing study.

control are evidence of the monopolisation of violence in lengthening intermeshing. These processes resonate with what Elias revealed in Europe but, the lands and the peoples being different, developing processes were not the same prior to current intermeshed struggles within developing globalizing thrusts today. I do not extend or develop arguments amongst differing author / narrative / context, or from earlier times, except where dialectic is evident in the times or where there is direct evidence of struggles in opposition that were shaping of the developing story.

The trajectories towards longer chains of connectivity within an interplay of socio-ecological processes and developing tensions led to significant social change within a relatively short period. Much of the refined detail of earlier struggles must remain beyond our sight but developing processes of the shifting struggle for, and against, wildlife preservation are revealing of many of the shaping processes in early conservation in developing protected areas. These are explored in the story of the nagana struggle in the next chapter.

*Nagana Campaign and early conservation in Zululand\**



\* 1. Nguni bull with Nagana. 2. Nagana hunters with warthog, Umfolozi, 1930's. 3. Captain Potter, warden at Hluhluwe with guide Wellington in 1950's. 4. Harris Fly Trap at field-day, 1930's. 5. 157074 tsetse flies from 75 traps, 1931. 6. Sikorsky helicopter spraying tsetse breeding grounds in Hluhluwe, mid 1940's. 7. Early tourist rest camp, Hluhluwe, late 1940's.

## CHAPTER FOUR

### The Nagana struggle for and against wildlife

*...people themselves, are shaped over time in figurations of interdependent people. The full force of how their actions interweave to produce 'compelling trends' which no one has planned or intended, and which then constitute and constrain the perceptions, purposes and actions of people, can only be fully understood in developmental perspective (Mennell, 1989:259).*

This chapter explores how a conventional wisdom of hunting and driving out wildlife to conserve people, land and cattle, examined in chapter three, came to be reshaped within developing processes of conservation emerged, as wildlife protection and land rehabilitation, within wildlife management figurations into the 1950's. The change occurred within a protracted struggle as the colonial administration established wider dominion within the region. Through this, people became bonded together within longer and stronger chains of connectivity and more entangled webs of economic and political interdependence. Within the developing story, the South African state emerged with developing monopolies of violence and trajectories of socio-ecological interaction that shaped the environment crisis we experience today. Noting this bigger picture of wider developing processes, my concern in this chapter is to examine a key strand shaping of wildlife conservation amidst extended struggle for, and against, preservation during the cyclic emergence of the nagana cattle disease.

The social processes of the nagana struggle should be seen against a much broader and pervasive struggle amongst contesting social figurations, a key feature of which is the lengthening and strengthening of colonial and later regional administrations. Within these a developing wildlife preservation turn shaped the slow emergence of nature reserves and a scientific conservation agency, processural features of which are examined in Part Three. This shift and rapid socio-ecological change was to shape what emerged as environmental education

within the scientific conservation administration figuration into the 1980's.

As we have seen, between the 1850's and 1900's with the Zulu Kingdom in decline under increasing British colonial influence, both wildlife and its associated nagana cattle disease came to be protected under the Game Laws and in game sanctuaries. The laws and reserved areas were, however, periodically to be deproclaimed only to be reinstated again during a long struggle for and against wildlife preservation in a period extending into the 1950's and beyond, when wildlife conservation became an established institution.

The struggle emerged within a processual interplay of shifting power relations, competing interests and changing social figurations. Nagana was a key tension giving rise to the local need / drive to hunt. This was in tension with administrative policies and a rising urban lobby to preserve wildlife, both of which were to come to rely on scientific enquiry to solve problems and to regulate socio-ecological interactions on the land.

The complexities of these social processes and axes of tension amongst peoples and wildlife suggest that much of the intricacy of the early social struggles on / for the land must remain lost to us today. Current historical reviews and interpretations of early conservation activities either do not reflect or simplify much of this complexity<sup>1</sup>. The intertwined social processes that merit closer scrutiny include the intensifying struggles of Boer, Zulu and Colonial hunters for and against wildlife and reserves, colonial administration over and for Zulu interests, a growing ascendancy of science, and expanding preservationist perspectives exercising all possible social influence to save wildlife and wild areas.

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<sup>1</sup> Here I am thinking of Ellis (1975) a study of the chronology of events that analytically examines Zulu conservation against modern aesthetics and Brooks (1990) that is centred on the activities of protectionist characters and events, and is rich in materials of the times. Pringle (1982) somewhat overstates the role of the Wildlife Society of Southern Africa and overlooks and simplifies issues within an oppositional posturing of conservationists and killers. This text is also rich in materials. Minnaar (1989) is prone to a narrow view on nagana but is rich in detail.

In examining features of these trends my concern, once again, is not with people and events, but with social process within the struggles towards the emergence of conservation and environmental education as they have come to be seen today. Just as this development could not be understood without the earlier story of the Nguni and other hunters, so key shaping processes are not revealed without a review of over a hundred years of struggle for and against nagana and wildlife preservation<sup>2</sup>.

### **i Socio-ecological disaster and the struggle against Nagana**

In the 1880's Boer hunters in the north may have been instrumental through their seasonal hunting, in driving back the larger game to Zululand<sup>3</sup>. This wildlife carried the dreaded cattle disease, nagana. A closer look at this process would suggest that the disease might not necessarily have returned from the north. It may simply have been in a relatively dormant state, the fly being restricted to isolated patches of moist bush in the river valleys. Any spread of the disease may thus have been restricted by low populations of infected hosts<sup>4</sup>.

Be that as it may, however, the key issue is that during an extended period of social disruption, the disease did reappear as populations of larger wild animals increased / returned in a locality. The fly then colonised wider areas where thick bush had grown back.

This had happened with reductions in the use of fire and decreased game drives owing to a

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<sup>2</sup> This long struggle and slow shift reflects a profound change in power relations and social figurations bringing into play differing social processes. At the same time it should be noted that the change developed within wider trajectories of lengthening social connectivity around a new centre of administrative power and differing social processes of institutional science.

<sup>3</sup> Guy, 1979; Brooks, 1990; Ellis, 1985.

<sup>4</sup> Some ten years after the chemical eradication of the tsetse fly some appeared at Charters Creek in St Lucia prompting the erection of 'de-fly' houses to prevent the population recolonising the game reserves (Minnaar, 1989:21)

progressive disintegration of the social fabric of Zulu tribal life. Increasing dense, shady and moist bush was the breeding grounds from which the fly could feed off increasing populations of infected wild game and / or cattle<sup>5</sup>.

An intermeshed complexity of socio-ecological processes thus brought about the return of fly, wildlife and nagana. The cyclical pattern of returning cattle disease brings to mind an image of earlier hunting and driving responses, reaching back into the shaping of Nguni figurations and their grasslands, dealt with in the previous chapter. Elias points out that no story of human figurations is a static picture or even what one might get on the repeating cycles of a carousel. It is more an open-ended episodic process with sustained directional spurts. These spurts are often interspersed with periods of little change and reverses but trajectories towards longer and stronger connectivity seems to prevail. It was the developing story of these processes that I was examining for a sense of how the nagana struggle shaped changing orientation and a sedimenting of the idea of wildlife conservation in nature reserves.

Over time and within the cyclical pattern of the nagana crisis, the people involved in the story began to get a clearer sense of how things had and were changing. This slowly growing sense of connectivity was evident in earlier tribal social process but in a different way to how it emerges in the continuing story. People were to come to see more refined and different patterns of connectivity in a more detached way that enabled them to start doing something about problems. The contested struggles thus not only led to profound change which reshaped the environment, how people were socially organised and how they came to see the world, but some people began more directly to shape events and others.

With a growing ability to see a problem and themselves within it, some people were less

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<sup>5</sup> This was in the main owing to the decline of the Zulu Kingdom and the loss of tribal power and central social control that regularised hunting and game driving responses and the veld burning associated with it.

victims to changing events and started to develop ways of acting to change things<sup>6</sup>. That these people were, in the main, removed from events was to have a profound influence on how the story developed in further struggles to come.

These processural sketches serve to provide readers with a brief map of the contests which unfold in the text. They are also intended as an overview of the Eliasian interpretative framework used to reveal developing social process in the continuing story.

A picture of the socio-ecological return of nagana and of what to do was not available<sup>7</sup> to people at the renewed outset of the problem in the 1890's. The shifting trajectory of events had changed the land and its peoples. There was no unitary social figuration to mobilise in response to the problem as the Zulu once had. The nagana problem arrived amongst diverse, contesting groups held by longer chains of interdependence, and subject to an increasingly intrusive colonial administration on issues of hunting and wildlife. Here differing patterns of external control and social dislocation appear to have constrained sedimented drives mobilising people to hunt, so as to restore a shared sense of security and continuity.

The Boers, who decreasingly needed to hunt to subsist, wanted laws that enabled wildlife to be protected during breeding, but which also reserved hunting areas for Boer frontiersmen over Africans and foreign sportsmen. The Zulu on the other hand, increasingly needed to hunt to subsist, following the loss of their cattle. They also needed to drive out game so as to limit its breeding and thus to control nagana to have the possibility of restoring their herds. Colonial

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<sup>6</sup> The Eliasian image of the spiral staircase is a powerful conceptual tool for interpreting patterns of long-term social change. In the concluding sense of the emergence of increasingly powerful social actors to bring about change, Elias warns that we must not be fooled into thinking that we have anything but a small capacity and only glimpses into part of the processural webs within which we are intertwined. It is important to note that this clearly was not the first occasion that humans achieved 'elevation' of sorts to look back on events. This had happened differently amongst earlier Nguni figurations building the symbolic capacity to respond to the problem in the ways that they did.

<sup>7</sup> At least not widely and in a unitary sense with the disruption of the Zulu way of life and possibly owing to nagana having been held in a reasonable state of control by a lengthy period of unitary hunting and driving by the Zulu.

hunting patterns changed to include British army sportsmen and later sport hunters. Somewhat ironically, it was not only to be Zulu peoples but colonial Zululand farmers<sup>8</sup> who were to be involved in the driving and slaughter of wildlife to control Nagana. This response may seem much the same as that of the Nguni centuries before, the figurations and patterns of struggle were to be very different, however, bringing into existence nature reserves and early nature conservation<sup>9</sup>. The story develops from within the Zulu and colonial administration where the renewed struggle with nagana commenced towards the end of the 1800's.

The nagana was depressive to cattle and cattle peoples, the name itself meaning to be low and depressed in spirits<sup>10</sup>. Without a responsive tribal figuration there emerged a profound uncertainty and a fatalism amongst indigenous peoples. Colonial native commissioners report a simple, stoic and compliant acceptance of the tide of events. This was interpreted by them as the way of simple tribal peoples in a crisis. Beyond this administrative interpretation of the Other, there resided a profound crisis of common sense and a growing sense of powerlessness among the rural tribal people.

Any grasp of this dilemma was beyond the reach of administrators and preservationists who saw no common sense in driving away wildlife. On the one hand, therefore, tribal people found it inconceivable that wildlife could be protected with / above people and, on the other it was inconceivable that people could be indifferent, antagonistic and utilitarian towards wildlife, unless they were simply savages after all<sup>11</sup>.

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<sup>8</sup> It was common sense to both that wildlife and cattle didn't mix but, although the colonial farmers had an increasingly more powerful political voice, the game was changing and they were also subject to a distant administration, its regulations and its scientific research.

<sup>9</sup> An added irony is that nature conservationists were to continue the slaughter as culling in the management of reserves. This tension was to stimulate game capture practices later in the saga.

<sup>10</sup> Minnaar 1989:12.

<sup>11</sup> Warren reacted with horror to the cruelty and savagery of tribal hunts. He was never at one but read about them at his museum office in Pietermaritzburg from where he corresponded widely (Brooks, 1990).

Throughout these struggles, common sense social responses were in a continual state of turmoil and flux for indigenous peoples and colonists alike. Within the cyclical emergence of nagana came rising and subsiding axes of tension giving rise to confusion, frustration and anger on all sides.

As this period unfolded, the administration held and began to exact, an increasingly powerful mediating ascendancy over the everyday life of others. This was shaped in oppositional narrative of black / white, wildlife / people and killers / preservers, 'us and them' relational symbolic tools with which administrator and scientist came to see the world within the dispassionate vantage point of their detached positions over others<sup>12</sup>.

Insight into the intricacies of the socially shaped meanings and daily steering choices around nagana amongst Zulu peoples is possible in the writings of Magena<sup>13</sup> who reports:

*we trekked , we crossed the Umhlatuze, where there ...were many buffaloes. Jojo and John collected dry dung, and grass which is eaten by the buffaloes; they lighted a fire, there was smoke there, they made it smoke upon the oxen. Sobantu (Bishop Colenso) enquired and said, 'What is this? What are you doing it for?' They said, 'Why this now, people do it that so, when cattle arrive at the place of others, they may not come to take their sickness.' The Inkos' laughed. At that place it was burning upon my word exceedingly<sup>14</sup> ; we were continually washing ourselves frequently, thinking we were cooling ... (Edgecombe, 1982:169. My note and brackets).*

This story from 1859 is but a small window into some of the socially embedded tangle of ideas, drives and practices of the times. The dominant understanding was an association of the disease with larger wildlife, the local explanation being that the cattle got sick by eating grass

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12 The reductionist crudity of dialectic reasoning and its failure to touch the complexity of socio-historical process is still beyond the grasp of many social scientists.

13 Writings of young Zulu missionaries travelling into Zululand with Bishop Colenso.

14 Note the earlier smoke cleansing and now how heat and high excitement feature in the text. This illustrates an embeddedness of group knowing and simply doing what is done, and not an 'Ah, because of the possibility of saliva and disease we need to burn the grass.'

infected with the saliva of wildlife, buffalo for example<sup>15</sup>.

Ironically, just as the stage was set for a renewed struggle with Nagana, it was the rinderpest in 1897 that brought on the most serious socio-ecological catastrophe. The disease reduced both wildlife and cattle populations by as much as eighty five percent<sup>16</sup>. With this collapse in animal populations, at the end of the century, there followed a nagana-free period when human settlement expanded into historically 'cattle disease and fever' areas. 'The stage had thus been reset' for the return of the nagana.

The drastic loss of game to rinderpest led to the rigid enforcement of the Game Laws and thus a fairly rapid return of big game populations. This brought back the nagana problem by 1904 and started an extended struggle up to and during the later 'Nagana Campaigns<sup>17</sup>' into the 1920's, 1930's and 1940's, eventually concluding in the 1950's. The slaughter of game during the campaigns was to whip up a hegemonical fever<sup>18</sup> around the destruction and preservation of wildlife. These processes reshaped people and environments within changing social figurations.

Initially the cyclical outbreaks of Nagana simply set back the recovery of Zulu cattle populations in some areas. This deepened the sustained disruption of the social fabric of the Zulu Nation as socio-historical hunting and driving responses were constrained and controlled by the colonial administration of the Game Laws. The socioeconomic collapse of the Zulu Nation was thus not simply a political act of conquest and suppression. These were

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<sup>15</sup> The idea of saliva on grass to explain Nagana was later to be disproved by science, apparently revealing the myth in indigenous knowledge and the fact of science. Even today, however, the buffalo of the Hluhluwe - Umfolozi cannot be captured and relocated to cattle farming areas owing to cattle disease problems when they share pasture with cattle.

<sup>16</sup> Lambert 1985:298.

<sup>17</sup> Ellis, 1975; Pringle, 1981; Brooks, 1990.

<sup>18</sup> The idea of a developing process of heated language in opposition amongst contesting social figurations is encapsulated in this term. Elias used it in describing contestation amongst the great powers. (Mennell, 1992:219)

intermeshed with protracted socioeconomic and ecological change that happened with this. The change was, in part, owing to colonial intent or to neglect by omission. There were numerous administrative failures to address Zulu concerns but much of this was underpinned by a lack of understanding and a goodly amount of well intentioned bungling within misperceptions of socio-ecological process and contexts.

The emergence of the administrative voice is initially apparent in how magistrates came to administer the game laws so as to keep the noble Zulu happy, quiet and fed, but also to conserve wildlife. These noble images are paradoxical to us today but were a sincere and well intentioned part of the social trajectory of the time<sup>19</sup>. The magistrates would allow infrequent and supervised hunts, and also appear, from time to time, to have indulged in these pleasures for themselves<sup>20</sup>. The hunts were thus a lever to subdue, pacify and to keep the natives (as Others) content and peaceful on the land<sup>21</sup>.

The Zulu repeatedly lost numerous cattle in the roughly ten yearly occurrences of mass outbreaks of nagana. It was, however, to be the impact of the nagana on colonial farming interests that brought on the periodic organised hunts into the 1920's and the later game eradication campaigns. Simplistic interpretation would suggest that this was a case of the colonial administration being galvanised into action to look after the interests of its own. Along with this, however, went an historical pattern of 'resisted and bungled' hunts and drives on crown lands. The driving out / eradication issue was also 'held-back' by the creation of sanctuaries to keep the game apart and was 'muddied' by the ceaseless and increasingly more

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<sup>19</sup> This does not imply that there was not a rational intent at suppressing the 'native' but is stated in this way to point to the success being more despite than because of this colonial disposition. See Unterhalter, 1978.

<sup>20</sup> This was to lead to the transfer of the administrative responsibility to nature conservators and to considerable tension on the conviction of poachers in the courts of these same magistrates in the early 1900's and into the 1950's and 60's.

<sup>21</sup> This point is overstated by modern historians who with their rationalist ideological lenses ascribe far too much in the way of intent and achievements to the bungling of the colonial administration amidst the myth and muddle of the times. These arguments are convincing in the present for the important task of seeking redress to injustice but they do little justice to the past and are not useful for illuminating a more sustainable future.

convincing influence of those intent on the preservation of game<sup>22</sup>. When the white farmers lobbied politicians and regional government, all of this experience and struggle counted in their favour as did the allocation of fly-infected land to colonial farmers by the government of the time<sup>23</sup>. A counter struggle to the driving and killing of wildlife emerged among influential city dwellers who exerted increasing social influence in figurations of power, now somewhat removed from the contexts of contestation amongst people and wildlife.

Within this sketch of key social processes is a shift to an outsider view on the people in the situation and a history of inappropriate and failed responses to local nagana issues. These changed relational dynamics came within lengthening chains of connectivity and a shift in the political economy. The longer chains of social connectivity gave rise to administrative figurations which brought with them different ways of taking, holding and dispensing power.

## ii Science and power amidst protracted reshaping struggle

The colonial administrative figuration began to accumulate knowledge and ideas for decision making at a centre of power somewhat removed from direct experience of events. After the reappearance of Nagana, reports on the disease began to reveal the native association of it with big game sharing cattle pasture and 'eating the saliva' on grass, and a view shared with Europeans that it was also related it to the tsetse fly, the sedimenting of which suggested that:

*The tsetse fly may therefore be looked upon as a kind of "fingerpost" indicating to man how far he may go with his cattle, and no further<sup>24</sup> (Pringle, 1982:111).*

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<sup>22</sup> This is found in how Warren and Vaughn-Kirby initiated delaying and minimising reactions so that wildlife (their) interests might be protected and advanced. Their voices, Vaughn-Kirby from the field and Warren from the Natal Museum developed as a powerful process (political sociology) within the distant centre of regional administrative power in Pietermaritzburg (Brooks, 1990).

<sup>23</sup> See Ellis (1975) and Brooks (1990) for accounts of this.

<sup>24</sup> The utopian naturalism apparent in this 'man in benign nature unless the rules are broken' is in the background to much of the relational dispositions of the time. This orientation is to be found sedimented within the reserves as places of God's nature with man on the outside.

A possible explanation of this is that the established cattle peoples with the experience of numerous cattle diseases, from the sharing of pastures with wildlife and the success of their burning responses, had developed a common sense that worked. They knew what had to be done so the asking of why was strange and unnecessary. Being polite and understanding of the confusion of outsiders like Bishop Colenso, as we have seen earlier, Magera simply offered advice by saying what was to be done in the case of coming upon buffalo. Outsiders, however, came into the experience of the fly with no sedimented symbolic capital of pasture sharing diseases. They signified the fly as the problem, unaware of the more refined symbolic capital of the Zulu over numerous other cattle diseases and how the wildlife / fly problem was consigned to the periphery with hunting and driving.

But, as it happened, colonial science was to show a direct link between fly and nagana. Such a link was not necessarily apparent to indigenous people at the time. They existed in a much more closely imbedded and longer term fabric of common sense that worked in day-to-day encounters with wildlife, particularly in winter when lowland grazing and hunting occupied the people of the region. Here fly were very well known to be associated with wildlife but their signification with nagana was not manifest owing to a wider knowledge of saliva diseases and tick-borne east coast fever for example. Much of this closely integrated common-sense has been lost within the changes this century and is now being mystified further within narratives that seek a revival of African indigenous knowledge against Western knowledge. The shaping of this oppositional knowledge as a commodity of power is to be found in the developing story within which science and scientists were to become key players.

The colonial administration brought in Surgeon-Major David Bruce to investigate the disease. By then the situation was that nagana was becoming an increasing menace. As early as 1892, a report of a conversation with a local native in Mtonjaneni provided the administration with a picture that:

*'The natives attribute the increase of nagana to the increase of large game under*

*the protection afforded by the government.' he said. 'They<sup>25</sup> state that nagana has now made its appearance in localities where it has hitherto been unknown to them; that in the time of the Zulu kings<sup>26</sup> when new tracts of country had to be occupied, where there was large game, it was found that the cattle moved to these localities died of nagana, and large hunting parties were therefore organised to destroy the large game or drive it to uninhabited localities<sup>27</sup>, and the disease disappeared with the game, but made its appearance again on the return of the game. That, eventually, no attempt was ever made to occupy new localities without first clearing as much as possible of the big game<sup>28</sup> (Pringle, 1982:111, My interpretative footnotes).*

Bruce soon overturned the indigenous notion of saliva by identifying a *Trypanosome* in the blood of infected animals. With the scientific overturning of this experientially signified conventional wisdom of local people, it shifted the power of knowing about things to the outside expert. The indigenous voice of the Zulu and the conventional wisdom of everyday experience receded against the advancing power of a colonial regional administration in an alliance with science. The administration was a less responsive social figuration still intent on the conservation of wildlife amongst the people but increasingly pressured by events to restrict utopian images of Eden to game reserves<sup>29</sup>.

Within two months of his forced return after about a year's work, Bruce concluded:

*Trypanosome was the cause of nagana, wild animals provided the reservoir for this parasite and tsetse flies transmitted the parasite from infected to healthy animals (Pringle, 1982:112)<sup>30</sup>.*

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25 Note the authentic use of 'they' as 'my communal family' being viewed as Other by administration.

26 Note here the transformation of a story in the past to a time gone by; now being the time of the colonial administrative government.

27 Note the transformative distinction that opens up the possibility of administrative strategic options.

28 Note the 'fingerpost' interpretation may have shaped a further strategic option.

29 Colonial conservation had long collapsed and conservation by natural resource management and science was to supersede it. Also, much of the Zulu indigenous experiential wisdom and myth was reshaped in the struggle to preserve or drive out and destroy wildlife during the Nagana campaign to underpin the eco-tourism and peoples conservation movements today.

30 The discourse has undergone radical transformation here. Gone is the closeness of doing and knowing as common sense and this is displaced with a longer sequential logic that corresponds with the social figuration of administrative routine and decision in contexts of removal; the 'mind' as a mirror of what is socially manifest in the life-experience within the processes of the social life of the day.

This clear pronouncement is uncoupled from the prevailing social perspectives of local people and also masks the processural bungling that tends to go with scientific problem solving. It presents the problem as three objective positions harvested from, and buried within, a forest of detached scientific logic and language. This is a significant shift from inside social events, amongst the people involved to outside figurations and a detached vantage point.

With science, the power for understanding and addressing the problem was firmly shifted to the administration which now had an abstracted view with a sense of having, at last, a firm grasp on the problem. Bruce continued work with a London laboratory and in 1898 he published a comprehensive picture of tsetse fly and nagana. His a scientific picture, developed in a specialist scientific figuration and reported to the colonial bureaucracy, enabled detached administrators to understand problems better than the rural people and farmers under their administrative care. This developing process meant that the detached came to know more and better than those who experienced the problems within an involvement in the struggles of everyday life.

Ironically, the nagana problem had receded by the time this report was concluded and, owing to the rinderpest destruction of wildlife and cattle, the administration was occupied with other priorities. Wildlife issues became a local area problem once again.

However, following localised outbreaks in 1904, the disease made a significant reappearance by 1910. Game drives were restarted but a prominent and far removed scientist upset the administrative perspectives by concluding:

*the destruction of big game would be futile ...as practically all animals including domestic cattle can act as reservoirs of the parasite<sup>31</sup> causing the disease of sleeping sickness (Pringle, 1982:17).*

Here the synthesis bracketing cattle and wildlife, within an outsider abstraction, has undergone

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<sup>31</sup> This detached image is a reinserted transformation of what happens in a petri dish but it has a powerful imaging influence as a detached view within an administrative social orientation that wants to save wildlife or simply to do the right thing in a situation. Unfortunately, this symbolism was not yet able to differentiate the ideas that the cattle could be withdrawn from the pool by people and that low grade and regular infection can build up a natural immunity.

a transformation that does not mediate the issue within the experience of cattle farmers. The mediation is now an oppositional toss-up between cattle and wildlife, abstractions of opposition that were to be imbedded within the developing scientific narrative and mediating objectivity of opposites.

Information on this research came to the notice of the administration through the pen of Warren<sup>32</sup>, a key outside player within a growing preservationist lobby that was to influence and dispute administrative policies throughout this period. In 1915, Bruce, the recognised authority, stated conclusively from the Royal College of Physicians in London that:

*'Wild animals should not be allowed to live in "fly country", '.... 'Not only should all game laws restricting their destruction in fly country be removed, but active measures should be taken for their early and complete blotting out.'*  
(Pringle, 1982:118).

The contesting voices<sup>33</sup> of 'Science' had thus become the authority on both understanding and solving the problem. The more distant administration figurations could not do without this power so it came to defer to science<sup>34</sup> and to wish/need to regulate the lives of people with these findings. Science for all its power of distant objectivity was to prove to be not unlike any other detached social figuration; rife with contesting views that give it an internal momentum, prone to simplifying abstraction of social complexity and, because of its location and orientation, a dependence on oppositional propositions for constructing problems and for justifying conclusions in arenas of contestation that were to come.

Of particular note is its continuing ascendancy and advancing influence within the nagana investigations. This started, as we have seen, by identifying the cause of the problem. This is closely followed by pronouncements on what should be done, and then often by contesting

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<sup>32</sup> Curator of the Natal Museum and a prolific writer of letters to advance wildlife preservation (See Pringle, 1982 and Brooks, 1990).

<sup>33</sup> This is a key point as frank contestation of disputed facts and the ultimate delivery of truth became the trump card of institutional science.

<sup>34</sup> Amongst the issues passed on to the scientists, and taken up by them as priorities, were endangered species (eg rhino) and the death of cattle with the consequent threat to the economy of expanding nagana and other diseases.

voices that dispute findings and recommendations<sup>35</sup>. These disputes were simply 'grist for the mill' and an expanding scientific figuration which started 'grinding out' results and reports on what must / could be done in terms of what was known.

These ideas came to be mediated within a series of conferences as the cyclic nagana crisis recurred. The problem was, however, to be solved with a protracted struggle after which one finds nature reserves established on the socio-ecological landscape of Zululand.

Here I can give but a thumbnail sketch of some of the developing processes<sup>36</sup>, starting in 1916 when the veterinary scientists, following Bruce said that everything should be exterminated.

This was done in Lobombo where, after the repeal of legislation the slaughter started:

*A ceaseless bombardment went on from dawn to dusk. Zebras in their hundreds rotted on the veld as their skins were practically valueless<sup>37</sup>. ' On the plains below Ubombo rifle fire drowned the bird song. Women sang among the blood and the bones and the entrails. With wet red arms and dripping skirts, they chopped and they sliced and they sang all day, and when they set off for the long trek home, the wagons creaked with the burden of venison<sup>38</sup> (Pringle, 1982:118).*

<sup>35</sup> Elias illustrates how, depending on power differentials, this contestation serves to bring on a more even distribution of power amidst lengthening and strengthening connectivity.

<sup>36</sup> Most of the material is drawn from Pringle (1982) a work which errs on the side of glorifying the struggle of the conservationists. It is none-the-less rich in data and materials of the times. I draw on this for insight into key trends and shifting orientation. His work also tends to underplay the role of agents outside the Wildlife Society focus of his account. This does not impose limitations on this study as it is his documenting of issues and changes and not the people and agencies that make the text a valuable resource. Other texts used were Brooks which is centred on a critique of Warren and preservationists. This text is also rich in data and original material. For a sound chronology I have drawn on Ellis (1975).

<sup>37</sup> Vaughn Kirby writing to Warren after the event. Of note here is that the beauty of the zebra was to become a rallying call amongst preservationist lobbies to stop the killing. Later there was a protracted dispute as to whether or not the zebra was a carrier of nagana. Common sense amongst indigenous peoples may have been behind this as the buffalo, most common in the reeds of river valleys was seen as the main problem. Despite scientists finding the bugs in the blood of Zebra, but in low concentrations, the idea of the zebra not being carriers persists today. Current scientific thinking is that zebras are carriers but were only a problem at the height of an epidemic. Their stripes afforded protection from the predation of the fly so that and low parasite counts meant that they were not key players in transmission. Also of interest is that the reedbuck, in large numbers in the Umfolozi of the Zulu and not so apparent in a changed habitat today, are one of the few species of wildlife that, like cattle, can die of nagana. For this recent scientific information I am grateful to Dr Max Bachmann, state vet at the Allerton Laboratories, Pietermaritzburg.

<sup>38</sup> Pringle's interpretative synthesis in his story of the Wildlife Society conservationists against killers in the contest to save wildlife in nature reserves.

I chose this text as it is not all in the words of the times, thus illustrating the emotive reaction of horror of the present, the anger and dismay among the preservationists of the day and yet behind and within these, and unseen, the song of contentment of the distant past at the quenching of the problem and the lifting of the spirit of the people.

The anger and dismay of Vaughn Kirby is evident in the destruction of his utopian Eden increasingly separating indigenous people and nature, when he stated:

*'Hitherto I have ridden or driven across all that country never knowing what it was to have a dull moment, for little troops of wildebeest would accompany the horse or carriage every step of the way, prancing, curvetting, and engaging in mimic combats as is their wont!' .....and now one travels from Ubombo to Mpuqa's kraal without seeing a head of game.'* (Pringle, 1982:122).

This interchange was with Warren at the Natal Museum in Pietermaritzburg, the centre of the administration. It is followed by an assessment of the results of the hunt which concluded:

*'Briefly stated, then, the position is this, that the game has gone but the fly remains...'*(Pringle, 1882:122).

The strategic intent behind this unsubstantiated statement of fact from the field provides insight into the opening of the arena of objective contestation<sup>39</sup>. It served to dispute the decision to allow hunting and to put pressure on the administration to be accountable for the decision.

After hunting restrictions were also removed in Ingwavuma and the slaughter started there.

Vaughn Kirby writes:

*I have often been despondent, sometimes almost despairing, but the end has come at last and I heartily regret that I ever took up this appointment* (Pringle, 1982:122) .

The text was written in an appeal to Warren who, near the seat of power and over an extended period, was to engage every possible administrator and scientist in a clarifying contest to

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<sup>39</sup> Brooks (1990) provides numerous examples how, in the developing heat of contestation, Vaughn Kirby, in the field, and Warren, close to the ear of the administration, were not averse to any means fair and foul to further their noble ideals. They had good and rapid communications and a developing moral imperative of detached judgement of what was good for the environment and right for others in Zululand.

preserve wildlife.

The destruction of game in Ingwavuma, for example, brought in a lobby of scientist / hunters, primarily dismayed at the possible loss of animals to hunt<sup>40</sup>. After the 1914-18 world war a letter from the Transvaal Game Protection Association protests:

*I now see that the whole of the Ingwavuma west of the Pongola has been thrown open to indiscriminate shooting of game, including the most beautiful of our antelope, the inyala. As a scientist and sportsman I must protest this vehemently (Pringle, 1982:123).*

By 1920 with the nagana crisis amongst the colonial farmers of Ntambanana<sup>41</sup>, a conference was called. This was a platform for the administration to cover itself on the strategic blunder of allocating fly infected land to farmers and also a meeting to mediate and solve the problem. The scientists could only report no further data and two research appointments were made the following year, Curson to Ntambanana and Harris to the Umfolozi Junction.

Scientists thus took their laboratories to the field once again and in their characteristic posture of 'detachment' came to develop insight into the problem. Harris noted that the fly hunted by sight and landed on the shady underside of objects, an insight which enabled him to develop an ingenious fly trap<sup>42</sup>. The trap was to mark a turn in events and a shift from killing the hosts (the game) to killing those carrying the infection (the fly). This turn happened very slowly as contesting parties became deadlocked in a double-bind<sup>43</sup> of conflicting abstractions. During this period all sought scientific solutions amidst an expanding networks of connectivity and escalating struggles.

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<sup>40</sup> This notion of 'hunters are conservationists' is still with us today as dominion and orientation are still contested. The argument has, however, changed to the notion of sustainable harvesting juxtaposed against the 'bunny-hugging' hyper reality of the animal rights lobby.

<sup>41</sup> Brooks (1990) deals with this in some detail but does not address much of the complexity that might dispute her disposition to ascribe far more to the rational capabilities of the colonial administration than they merit.

<sup>42</sup> Brooks reports how this happened through interaction with locals and Pringle (1982:125) ascribes it to field observations. The two probably went hand in hand within the haphazard interplay of experiment and accident that usually characterises scientific problem solving.

<sup>43</sup> No-win deadlock amongst equally balanced contesting social figurations. (See Mennell, 1992:220)

Notable amongst these was a state disposition at a national level to dispose of the game and a regional distrust and resistance within a mounting African nationalist struggle for freedom from British domination. Added processes,<sup>44</sup> were growing public contestation in the press, rising urban support for the preserving of wild animals, widening networks of scientists being consulted and fly trapping being curtailed owing to a dispute about whether flies saw or smelled their prey.

This latter dispute is of particular interest. It developed when Fuller (an entomologist who worked at a national level with cattle that presumably smelled) transferred Harris (a botanist who had been working with wildlife that one cannot usually get close enough to find out if it smells) after disputing his competence in finding that the fly hunted by sight<sup>45</sup>.

In 1928 the now wider network of contesting parties became more visible when it was announced:

*At a conference between officers of the Lands and Agricultural Department<sup>46</sup>, resolutions were passed in secret but it was decided to abolish two of the three game reserves in Zululand. Wholesale slaughter of game to be commenced (Pringle, 1982:129. My footnote).*

The secret conference gave rise to a hegemonical fever in the press, the formation of the Natal Branch of The Wildlife Society and the responsive creation of the Game Advisory Committee involving all contesting parties. The committee can be seen as a double-bind figuration<sup>47</sup>, a social group that became locked in a stalemate of detached and shifting contestation which

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<sup>44</sup> All of these are reported by Pringle (1992:126-129).

<sup>45</sup> This may be seen as, and is to some extent, a lighthearted note but behind it is an image of scientists as people struggling, not unlike anyone else, in the processual contexts and orientations of the times. In a recent popular article (Mitchell, 1996) on scientific research on Tsetse in Zimbabwe, scent was found to be the key orientating sense, fly congregating down wind and then presumably sighting in on the whole animal before alighting on the shaded underbelly.

<sup>46</sup> That these were national and not Natal regional administrative groups making the pronouncements, was to sediment a growing distrust between regional and national structures.

<sup>47</sup> Elias notes this as a key balancing of power differentials enabling the balancing and reshaping of ideas.

moved first one way with the shooting starting in 1929,<sup>48</sup> and then the other with public meetings and recriminations for slaughter and incompetence<sup>49</sup>. Pringle notes:

*The complete irreconcilable attitudes of the two sides of the Game Advisory Committee renders this body of no use,' (Pringle 1982:132).*

Public recriminations led to the return of Harris and his traps so that Umfolozi once again became a laboratory. It also came to be identified as the last home of the declining white rhino. In 1928 Vaughn Kirby had reported only 28 white rhino but this was apparently seen as a protectionist ploy and after being disputed by the Game Advisory Committee, a count of 100 was settled on by 1930<sup>50</sup>.

By this stage significant change had started to take place within the prolonged and shifting tensions of this double-bind situation. Game was being recognised as desirable but having to be kept separate and away from people<sup>51</sup>. Despite this, and in a mounting crisis in 1931, the Minister of Lands concluded:

*I have held the view that the only solution to the problem is to eliminate the host of the fly, which can only be done by eliminating the game reserves. Hluhluwe and Mkuzi must be abolished. The rhino can be preserved in Umfolozi but the rest of the game must be reduced<sup>52</sup> when it becomes too plentiful (Pringle, 1982:139. My footnote).*

This detached voice of mediated reason was accompanied by a decline in the nagana problem. In the Umfolozi and surrounds, fly traps by the thousand were catching flies by the million. Capture numbers then began to decrease and nagana declined towards 1932 as a Commission came to define minimum criteria for game reserves. Namely:

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48 Pringle, 1982:132.

49 Pringle, 1982:133.

50 This is not a trivial detail within the sweep of events as it illustrates how anything and everything was contested and data was stretched to make a point. That is in the nature of a political sociology of human events. Also of note is that the endangered rhino, for all their value in the distant images of the towns, were a constant disruptive menace to the experiments. There was even talk of moving them to Kruger National Park but insufficient funds were available during a deepening worldwide Great Depression. (Pringle, 1982:135)

51 1929 Pan-African Veterinary Conference (Pringle, 1982:138).

52 This also heralds a shift from a free-for-all dispatching of everything to management by controlled hunting, suggesting a sedimenting of ideas and a firming up of emerging conservation structures.

*it should be capable of supporting all species of Zululand fauna, be scenically attractive to visitors, provide adequate grazing and watering facilities at all seasons (Pringle, 1982:143).*

Scientists, in the same period had found that only 4.25% of the fly were infected and that they *used restricted and permanent breeding sites*<sup>53</sup> in the river valleys

Despite the ideal game reserve criteria applying only to Hluhluwe, all of the reserves were retained in 1937 with the Natal Provincial Council electing to ignore most of the Commission's findings<sup>54</sup>. And then in 1939, with the Second World War, the nagana returned, reaching its peak in 1942-43. The fly traps had failed as had barrier clearing and containing wildlife in game reserves. Pringle (1982:146) reports a slaughter of 138 529 animals to contain the disease. This went on into the war years.

After the war, soldiers returned to the peaceful solitude of significantly depopulated reserves to manage what was left of them. Scientists hastily reviewed / interrupted research and the nagana events of the 1940's. The exterminators are even reported to have:

*developed such a distaste for their job, that long before the campaign officially ended, they were shooting only enough to provide meat rations for the staff (Pringle, 1982:146)<sup>55</sup>.*

Within about five years the problem that had made ten yearly cyclical appearances since the 1890's, and much earlier, was to be dispatched with military precision. A figuration of more closely knit returning soldiers came to take up their conservation posts in the green tranquillity of Zululand to be thrust into the battle with another cycle of nagana that was to claim 63% of local cattle<sup>56</sup>.

Following on from scientific work, over a two year period, the breeding grounds of the enemy

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<sup>53</sup> Pringle, 1982:143.

<sup>54</sup> Pringle, 1982:143

<sup>55</sup> Given Pringle's disposition to interpret the best of the preservationists and their cause there must be some doubt on this issue.

<sup>56</sup> Minnaar, 1989:21.

were sought out, mapped and classified. Bush clearing was expanded and efforts were made to keep the game in check in the reserves. A new weapon, DDT insecticide, was tested<sup>57</sup>. Fly traps were then reinstated to monitor effectiveness as 'dawn bombing raids' dispensed DDT with ruthless precision to dispatch any trace of the enemy. Follow-up trapping confirmed victory. Scientists and conservation administrators had dispatched the problem with the total elimination of the bothersome fly by 1954<sup>58</sup>, and at a postwar cost of about one million pounds<sup>59</sup>. With this, the idea of game reserves was firmly established on the Zululand landscape.

In their responses within the nagana story, scientists came to abstract and to accumulate more and more detailed symbolic pictures of the world<sup>60</sup>. This '*detour by detachment*' was to bring with it more '*reality congruent*' pictures of the world as Elias(1987) illustrates. A better grasp of the problem, as we have seen above, emerged and was mediated at a distance within the protracted struggle over the nagana problem. The victory over nagana eventually came to be seen as a victory over a:

*misguided belief in the efficacy of game eradication (that) had led to the destruction of hundreds of thousands of wild game*<sup>61</sup>.

This notion has little substance in it if one delves into the social processes that have shaped our world, the people we share it with and our sense of this and ourselves within it. Lost in the

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57 The news of aerial spraying to control malaria came at the close of the war and led to veterinary research on pesticide control on nagana. (Minnaar, 1989:20)

58 Ironically, a cure for the disease emerged at about the same time. (Minnaar, 1989:21)

59 The social and ecological cost of this has and is being felt but may never be counted. This is in the nature of social process where the pain of birth and the change enacted by it is celebrated in the continuing stream of life.

60 Elias refers to this social process as a detour via detachment; loosely put, a developing capacity for an outside view that enables the circumventing of a problem. This developing and open-ended process has the potential of enabling greater reality-congruence in the social pool of knowledge. Within the recent institutionalising of these processes has developed a removal where the problem is taken out of the hands of ordinary people engaged in the business of life. Inherent in this are problems of transformation and the need to exercise increasing control through institutional symbolic violence within the lives of others.

61 The scientific disposition echoed in this quotation from Minnaar (1989:21) is found in most texts on this issue (Pringle, 1982; Brooks, 1990; Ellis, 1979), reflecting a limited modernist view of social process that influences current orientation to science and environment concerns.

mists of time and cast aside were the common people and a common-sense science in everyday life. The reckoning with this was, however, only to become an ongoing struggle with the advent of environmental education in the 1980's and beyond.

Within the early struggle for conservation I am struck by the marked similarities in how the early Nguni, and colonial stock farmers responded in the struggle against wildlife. Equally striking is the immense scope of the social change that was to take place and how the intentional sequences of planned events by agents and agencies produced, within changing social figurations, structural trends that are only now open to sociological interpretation with the benefit of hindsight.

Conservation is revealed as processural ideas, socially shaped and differentiated within a socio-symbolic struggle among the predispositions of the times and the emergent risks that mobilise figurations of people to respond in differing ways<sup>62</sup>. How people went about this, what we have now and that we would want to improve our capacity to enable change towards more sustainable living, are the key concerns of the study.

The developing pattern of tension / conflict and change occurred in a protracted battle that was waged amongst farmers (killers), preservationists (conservation) and conservation administrators<sup>63</sup>. Ironically, early conservationists came to dislike all outsiders as they became figured as 'lords and protectors' of nature against the excesses of people. Here they were shaped in a role of elevated guardianship by the fever of words and experiences within the tensions of the day-to-day processes within which they were intermeshed. These processes are examined in detail in Part Three.

The nagana process is characterised by an intense, circular and to-and-fro struggle amongst

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<sup>62</sup> This study, therefore, does not ascribe to kings, governments, individuals or prevailing rational process that which has emerged as nature reserves and the field of conservation science, although administrators and politicians are want to do so.

<sup>63</sup> *The Conservationists and Killers of Pringle* (1982) gives scant and superficial account of these processes.

wildlife and people. This pattern on the land is mirrored in a responsive struggle within administrative and government figurations, socio-experientially removed from the contest and engaged in intricate contests of opposites of their own. Within these expanded connectivities and more complex social processes human orientations and wildlife changed in all contexts. Nature came to be more established as separate from people and wildlife came to be contained and controlled in nature reserves.

This simplification of social process serves to give a sense of an interplay of heated contestation amongst people in contesting orientations within the shifting trajectories of the socio-ecological struggles and the developing political sociologies of the day. The images, ideas, dispositions and motivating drives are all carried, contested and reshaped within the heat of these events, and amongst / against the trajectories of the day. It seems to be this 'heat' and the social power of clarifying language in/and actions that worked together to produce changed people and social figuration. In this case once the heat dissipated as the problem was solved we are left with conservation of wildlife in nature reserves into the 1950's.

Towards, around and within these new figurations, science was shaped as a network of detached experts, in and servicing increasingly specialist administrations. It was also an arena of objective contestation within which, on the surface anyway, all played by the same rules. This led to an interplay within which the emergent modern conservation institution was to be cast in the image and likeness of science, and science was to be cast in the image and likeness of the modern world, both in mutually supportive and unassailable positions of detachment and elevation in relation to the social experience of everyday life. As things started to go wrong there was a need to influence and guide the life-worlds of people. An imperative to control and to influence others thus began to develop in a time of increasing specialisation. It was, however, to be some time before environmental education developed following processes which shaped others and established conservation administrations in a posture, and with the power that they were impelled to educate others to make them aware.

At this early stage the struggle had waxed and waned as Nagana emerged and receded in puzzling, roughly ten yearly intervals. These cycles were later ascribed to an interplay of drought and the fluctuating populations of wasps that fed on the larvae of the flies<sup>64</sup>. By the time this information was available, however, the tsetse fly and much of the insect population of the region had succumbed to repeated aerial drenching with the insecticide DDT and equally lethal but cheaper advances in this technology.

This closed the chapter of the tsetse fly and nagana in eastern southern Africa, a period of intense sociopolitical and economic struggle shaping of people in/on and mediating over the land from outside. Within the brief lull in the frenetic pace of events the wildlife is to be found in game reserves. These are staffed with a fledgling nucleus of dedicated conservationists who continue old wars and wage new ones, mighty men<sup>65</sup> destined to achieve immortality saving rhino and wild areas (Chapter 5), and with a developing knowledge and power, looking out on and seeking to influence the lives of others (Chapter 6).

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<sup>64</sup> Minnaar (1989:21) describes how this possible explanation for cyclical trends was suggested in 1954 after the local extinction of the tsetse fly.

<sup>65</sup> This term should not be seen as casting derision on these men, black and white. With this danger I tried to come up with something else, but when I discarded it I lost the ambiguities that it carries and that pervade the periods to come. I thus choose to live with any resentment that it might bring upon my shoulders and this interpretative text.

**PART THREE**  
**OTHERS IN NEED**  
**OF AWARENESS**



## PART THREE

### OTHERS IN NEED OF AWARENESS

*With game reserves being more firmly demarcated as protected areas under nature conservation agency management, came slow processes of change. These were neither an obvious ruptures nor a rapid shift with the establishment of the Natal Parks Board in 1947. What occurred was a developing dominion over reserved land and a concurrent construction of new scientific knowledge. These processes had a pervasive influence in shaping 'the Other in need of awareness' for early education initiatives within emergent scientific nature conservation institutions.*

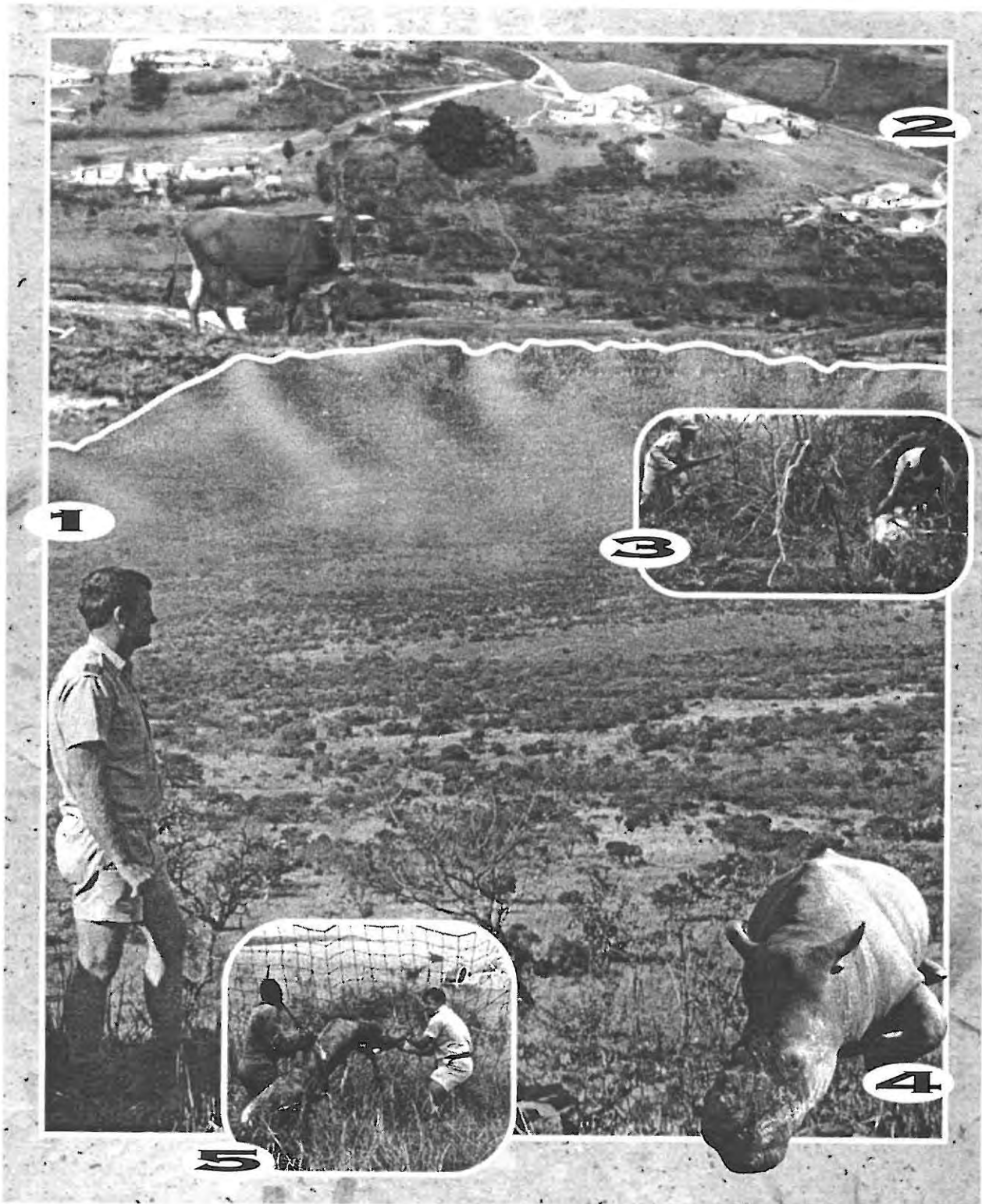
*Chapter Five examines social processes in the establishment of conservation management dominion over the land and, hand-in-hand with this, the institutional shaping of the Other outside. These processes, a developing break from earlier continuities, are revealed within the intermeshed struggle against poaching and for scientific wildlife management in an increasingly centrally directed conservation institution. They set the stage for the emergence of education, as civilising process for others through institutional functions shaped within the developing struggle and changing relational dynamics. These processes are examined through windows into axes of tension within the developing stories on the reserves and in the times.*

*Accompanying the 'othering' revealed in Chapter Five, Chapter Six examines developing processes of scientific knowledge and power in reserve management struggles as these began to speak of, and became involved in, educating others in nature reserves. These processes are found intermeshed within the changing relational dynamics in struggles to understand and to manage the natural wilderness created by the reserve fences. Here the text again seeks*

*windows which locate and examine interacting social processes of involvement and detachment within the struggles to capture rhino . This was undertaken in a valued wilderness of fascinating insight whilst looking out on a world at risk, with increasing worry. The pictures of the developing struggles reveal processes shaping identity and more reality congruent knowledge, empowering better institutional environmental management. Hand-in-hand within the processes that shaped this emergent social epistemology of scientific conservation management, within and around its new and powerful symbolic capital, came a greater sense of ecological interdependence and strong feelings for an imperative to educate others degrading their environment through a lack of knowledge / awareness.*

*Within an open-ended web of these developing processes, the ways the people involved came to see and to feel the need to solve environmental problems gave light, life and direction to an educational turn in the developing events. Revealed here without being stripped of complexity, the interwoven twists and turns are 'othering' and an emergent more 'reality-congruent' knowing, which shaped people in/and institution within processes which developed all kinds of education into the 1960's and beyond. The developing processes of education exposed in this part of the story are examined more fully in Part Three as the trajectory of scientific conservation and environmental education continued into the 1970s and 80's.*

**Struggle for dominion amidst the Other on the periphery\***



\* 1. Graham Root on a rise overlooking a valley in the southern Umfolozi. 2. A scene of rural Zululand inserted on the periphery beyond the ridge of hills. 3. Maqubu Ntombela and colleague demonstrating anti-poaching for the press. 4. Dead white rhino with horn removed by poacher. 5. Rod Henwood and game guard with captured impala. Note helicopter to drive animals and nets used in early capture operations.

## CHAPTER FIVE:

### Dominion over the land and the shaping of the Other

*The way in which individual members of a group experience whatever affects their senses, the meaning it has for them, depends on the standard forms of dealing with, and of thinking about, these phenomena gradually evolved (developed!) in their society. (Elias, 1987a:4-5. My brackets)*

The events of this chapter straddle the mid 20th century and reach into the 1970's when game parks and nature reserves became firmly established. The reserves are dealt with as a separate chapter because their conclusive establishment in the late 1940's brought with it a changed vantage point and a developing scientific institutional figuration, the Natal Parks Board.

Game rangers now lived within the nature reserves and 'looked out' on threats to, and change in and around, what was to become their custodial and valued wilderness. There were other figurations that came to 'look in on' nature reserves; tribal peoples, commercial farmers, urban visitors and other more intermeshed scientific and administration/ political figurations, and more recently donors and sponsors.<sup>2</sup> These groups were all to have a developing influence within axes of tension and continuing processural trends towards nature reserves and environmental education.

The seeds of this change had emerged fairly early, as we have already seen, and by 1947 the axes of tension amongst contesting figurations were firmly established in and around reserves.

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<sup>1</sup> Elias later came to use 'developed' in preference to 'evolved' to avoid a tendency of the process being seen as organic and cumulative and thus lacking an openendedness.

<sup>2</sup> I have clustered these figurations, as all were to interact within the axes of tension that impinged on the nature reserve and nature reserve staff. Within the text of this chapter, the emergent threats have been ordered in an unfolding magnitude and developing sequence as they appeared and intermeshed in the story; from poaching and management / science at the outset to tourism and a much bigger picture of environmental degradation that was to develop on the sub continent by the 1980's.

Nature conservators had begun to live within game sanctuaries and not simply to visit them. Tribal peoples and commercial farmers lived on the boundaries, and other interests, tourism, scientific, administrative and political emerged within longer and strengthening chains of connectivity.

A sense of an emerging 'view from within' amongst reserve management staff is vividly captured by Ian Player<sup>3</sup> in the opening of his book on the *White Rhino Saga*, one of the adventures of the 'mighty men' of conservation that was to captivate the world. The story opens:

*When I first visited Umfolozi Game Reserve in 1952 it was like entering a deserted world. Wherever I looked there was silent bush and mile upon mile of uncropped red grass. In a long walk through the glades of scattered trees and waving grassland, I saw nothing but a few solitary grey duiker. It seemed impossible that in seventy-two thousand acres of game reserve there were four hundred white rhino. I camped out that night and no moths or other insects came to the lantern light. The aerial spraying with anti-tsetsefly insecticides had been too effective. (Player, 1972:17)*

This extract encapsulates a post-nagana landscape and the solitary frontier ranger within a fledgling figuration of conservation managers that were to develop a spiritual attachment to the land. Early game-rangers either were already, and certainly came to be characterised as, people who preferred isolation and in many cases disliked intrusive human contact<sup>4</sup> in their world of nature in abundance and wildlife at risk.

The changing orientation of living 'within' and the threats 'around and from without' were intermeshed within a long period of further and differing struggles. Within these the landscape, the people and how they saw the world were all to change still further, and in the established direction of a separation of people and nature, towards greater specialisation and a growing

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<sup>3</sup> Ian Player was an early game ranger in the Umfolozi game reserve who became involved in education in the 1960's and formed the Wilderness Leadership School in the early 1970's.

<sup>4</sup> Carruthers, 1993:15 places this character behind a shortness in attitude in having to deal with labour 'troubles and indabas' described in early ranger diaries of the Kruger National Park. This 'solitary' character of rangers that has given rise to this sort of response merits closer scrutiny lest one might attribute to the individual or as a character that in a group without penetrating to the shaping social processes of context.

sense of the Other, outside and unaware of the environment and its problems.

In this story people like Ian Player and others, and events like the Rhino Saga stand out. Contemporary and historical accounts tend to ascribe change to such individuals and events<sup>5</sup> but these often merely reflect a particular stage or wider developing processes.

## **i A developing conservation institution**

The dawn meeting of Power and Mitchell five years earlier in 1947 are just such a case of a stage within the developing story which gave rise to the emergent social figuration within which the focus falls in this chapter.

*... in my pyjamas, I went outside into the road that ran between and in front of the huts on the Hluhluwe Hilltop. There, to my surprise, in the early dawn, I found Mr Power walking up and down in his overcoat, smoking his old pipe and in deep thought over the whole question. He told me he had hardly slept that night and it appeared that the choice was going to be left to Natal as to whether we should hand over control of our reserves to the Kruger Park or not.*

*At last, looking at me very straight, Mr Power said, "We will go it alone Mitchell. These are our<sup>6</sup> reserves and we will go it alone and make a success of them." (Natal Parks Board, 1987:4).<sup>7</sup>*

This account by Douglas Mitchell, Chairman of the Board, relates to the visit from the National Parks Board of Trustees to discuss the possible management of Natal reserves by a national state department. Behind this image, the kind of thing that myths and legends are made of, was the closing nagana struggle and the imminent formation of the Republic of South Africa under

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<sup>5</sup> See Mennell (1992:195) for an overview of issues of historical interpretation.

<sup>6</sup> Here the sense of 'our' refers to the provincial government of Natal, Mr Power being a member of the provincial cabinet. The institution was to be run within the prevailing political framework, the United Party, for some 23 years before the chairmanship was no longer a political appointment. (Natal Parks Board, 1978:5). Shortly after this change the National Party which had dominated the political arena at a national level began to exert more influence in Natal.

<sup>7</sup> Geddes-Page reporting how Douglas Mitchell tells the story.

an Afrikaner nationalist government, and its later apartheid policies <sup>8</sup>.

By this stage, earlier social process had brought about significant change, shedding and reshaping colonial utopian wildlife preservation amongst / against the noble savages for island sanctuaries of natural bush and wildlife under the protection of a fledgling figuration of game rangers and game guards. This new island utopia was to be wrought by game reserve staff who established dominion over the land in a period extending into the 1980's.

The creating of 'the reserve' was to a frontier of struggle within which earlier ideas were reshaped or forgotten and a new awareness of nature and natural systems was to be constructed. This was a long and shifting process of achieving dominion over the land, opening it up to visitors and seeing it come to stand in stark contrast against a changing world around it.

Early on in this process the dominant axis of tension was poaching, primarily by surrounding Zulu tribal communities. Through this extended struggle amongst reserve and neighbours, dominion over the land was secured and held within continuing struggles into the present. Successful ecosystem management, the parallel challenge, was to secure the knowledge and power before a later imperative to educate amidst increasing tourism and the degradation of the surrounding environments.

Complex social processes and shifting axes of tension followed close on each other and are intermeshed in a sustained thrust that saw the ten reserves of 1947 becoming 62 by 1987<sup>9</sup>. Within this successive expropriation of conservation land under state control for wildlife protection, a desire to preserve large game species in reserves receded against a concern for

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<sup>8</sup> See Carruthers (1994) for an interpretation of how the Kruger Park and the National Parks Board were to become symbols of Afrikaner nationalism. It is of note that the events of the Natal conservation arena developed somewhat of a counter hegemony, erupting in a commission of enquiry into the activities of the Natal Parks Board (Provincial Council debate 6 & 7 June, 1972). At about the same time the decision was made that the chairman of the Board not be a political figure (Geddes-Page, 1987:5. In NPB 1987).

<sup>9</sup> Natal Parks Board, 1987:12.

sustainable environmental management into the 1980's and 90's. My concern in this chapter is not to map all of these processes and trends but to examine how in securing dominion over the land the stage was set for the development of the power, certainty and an institution that begins to educate others. (Chapter 7)

## ii **Hunting and the social construction of the poacher**

Before and beyond the context of the struggle against poaching in the reserves, the Africans had been written out of conservation<sup>10</sup>. That does not mean that the 'established' Zulu figurations were not significant 'writers and shapers' of the developing story<sup>11</sup>. They along with all other groups who posed a risk and gave rise to fears or some form of threat to reserves came to be seen as 'outsiders' by the 'established' within the reserves<sup>12</sup>. The development of nature reserves was not simply a political process of state allocating wild lands for conservation and evicting or excluding local people from land to be set aside for wildlife preservation.

Historical accounts of wildlife conservation based on the interpretation of documents about events and people, and the emergent images of hegemonies and monopolisation of power, tend to provide a compelling but simplified view of developing processes. The resultant images of exclusion in parliament, from administration and at the fences, are then reflected in/on the present as a pattern of engineered social exclusion when these were more like a somewhat blind struggle. An historical narrative that provides depth, chronology and a sense of the scope of things past can also produce reductionist error that does not explain or provide insight into

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<sup>10</sup> This is apparent in the administrations where scientific discoveries came to be established above and outside issues of everyday life and in how the agencies of government co-opted and enacted land distribution. See Carruthers 1994 and 1995. Other key processes were the receding of the myth of the noble savage as the cruelty of hunting and snaring offended the sanitised sensitivities of city dwellers developing a passionate utopian involvement in the preservation of nature and all things natural.

<sup>11</sup> This point opens up some of the limitations of the narrative turn in intellectual pursuits. See Mennell, 1992:190.

<sup>12</sup> The open-endedness of the sensitising concepts of Elias is apparent here where the established become outsiders and processural trends develop from the early inversion of power relations.

context and social process. In many of the contexts looked at by this study the bigger picture of wider power relations that history reveals today were not relevant in earlier social context. These did not impinge on local processes, and where they tried to, were often unnoticed, ignored and resisted with some success<sup>13</sup>.

Some of the problems of histories are revealed in that they are always having to be rewritten in the present day, an activity correctly explained, on the surface anyway, in terms of the bias and misinterpretations of previous days and on the emergence of fresh evidence and new insights. There is ample justification for pursuing the task with critical ideological vigour but unfortunately there is little way to reveal the limitations of revised perspectives which come to have a renewed resonance of truth in the political sociology within which they have been reworked.

Illustrations of this blind spot of historians are revealed in the interpretations of conservation history that were referred to in this study. An early history reflects the emergence of game reserves as a contest of conservation against the wanton slaughter of wildlife<sup>14</sup>. The limitations of this version of conservation history are revealed by a later historical work, a new ideological blind spot revealed in its images of preservationist madness and a colonial hegemony trampling on indigenous peoples and their earlier conservation traditions<sup>15</sup>.

These and current critical, interpretative histories tend to construct rational images of process and a superficial sense of the past which is seldom translated into the issues of the present. The door into the present, historians often close on themselves as they stand outside and away from things to reflect the past in the mirror of the present; they cannot engage with the present until it becomes a continuing past.

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<sup>13</sup> Early on the Zulu were oblivious of and were able to resist poaching laws just as reserves were able to ignore and resist administrative and scientific direction with some success.

<sup>14</sup> See Pringle, 1982.

<sup>15</sup> See Brooks, 1990.

My intention here is not to reveal ‘the worm in the apple of history<sup>16</sup>’ and thus to dismiss historical works,<sup>17</sup> all of which I have found incisive and challenging sources of original materials and interpretations for this study. I simply seek to reveal a significant limitation of historical engagement in the interpretation of socio-ecological matters.

Histories give attention to poaching as patterns of political decision making and land contestation, evictions and policing within dominant hegemonies. These vantage points often lack interpretative depth obscuring other axes of tension, reshaping social process and changing relational dynamics that are of key importance within processural trends.

I have dealt with this issue here rather than in an earlier methodological chapter because it develops as an interpretative concern as the study begins to examine key processural thrusts into the present. In revealing some of the limitations of current ‘socially critical’ and ‘social justice’ historical interpretation I hope to clear away a narrow view of subsistence hunting / poaching as a form of resistance to injustice<sup>18</sup>. In so doing, I hope to locate these emergent ideas within wider developing processes and social change that somewhat blindly shaped the terrain within which education was to emerge along with a shift in developing patterns of knowledge and power within / over the natural world.

In examining developing processes, I found reports in the times that reflected a continuing institutional detachment amidst changing relational dynamics in and around nature reserves. I centred my attention on biographical accounts of life and activities in reserves<sup>19</sup>, set against the

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<sup>16</sup> An incisive metaphor used on occasions by Elias.

<sup>17</sup> Historians have critical traditions that are far harsher and much more incisive than my comments here. They do, however, not unlike philosophers, overlook foundational orientations that are wont to foster a circularity that is increasingly coming under scrutiny. See Mennell, 1992:195.

<sup>18</sup> In making this distinction, I do not discount that this processural trend may not have been significant at some sites of social contestation and that it might not emerge as being of greater significance in developing struggles. There is a hint of this orientation in the account by Player (1972:161) of the big hunt of 1962 but this is more a question of decreasing constraints on hunting beyond reserves and boundary contestation.

<sup>19</sup> Histories in themselves, the scope and orientations of which tell the story of some key processes shaping environmental education.

earlier processural patterns drawn from historical texts and writings in the times. For sociological interpretation of developing processes, the Eliasian texts on '*Established and Outsiders*,' '*The Game Models*' and '*Involvement and Detachment*' were my continuing source of orientating sensitising concepts.<sup>20</sup>

### iii Reserves and poaching

As the tribal system and the cattle ecology of Zululand declined in interaction with colonial imperialism, and with associated socio-ecological change and a series of natural disasters, the Zulu people had little option but to revert to the traditional role that they had been assigned by the colonists; the noble savage who hunted to survive, but increasingly for whom, to do so was to break the law. Initially, this paradox did not impinge on the rigours of everyday rural life, this being the frontier of the colonial administration where patterns of constraint were episodic. Recurrent bafflement and the appearances of stoic compliance, must have accompanied periods when laws could be ignored or were leniently applied but suddenly, at times, imposed with surprising rigour again<sup>21</sup>.

During this time it was the colonial administrators who were developing the capacity to look down and back with a developing sense of knowing the Other better than he<sup>22</sup> knew himself. The Other was also developing a sense of the administration, however; how to sow the seeds of doubt at times and at others, how to get around problems as he (and she) became masterful

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<sup>20</sup> Mennell, 1992:115-139 and 159-180.

<sup>21</sup> The pattern ran directly counter to previously sedimented social response, where abundance of wildlife led to worry and the disappearance of wildlife made people feel secure. At this stage, amidst drought and cattle losses, people needed to hunt because they were hungry, but hunting was discouraged to allow the wildlife to recover. When wildlife returned in abundance the rural people would have become anxious at the threat to their recovering cattle but were not allowed to dispose of the problem, and at the same time feed themselves, by killing wild animals.

<sup>22</sup> Throughout the text I try to use the male and female pronouns when these orientations predominated and 'nonsexist' orientations as these sensitivities emerged much later. Here one had men on the frontier and hunting was the concern of men, but this does not preclude the influence of men and women in community within and behind this situation.

players in the developing game.

It was only with the advent of wildlife sanctuaries that 'poaching' took on a subtly new association with wildlife in protected areas. As this developed, however, recurring cycles of Nagana saw the hunting and driving of earlier times, but now undertaken by hunters employed by the state. When the Nagana receded and eventually disappeared the terrain of anti-poaching contestation became the reserves, a new frontier of social change amongst shifting relational dynamics within a scientific conservation figuration amidst lengthening and strengthening chains of connectivity into a provincial conservation agency with a distant headquarters.

These interpretative sketches of changing orientation amongst the developing pattern of processural events in game reserves have features that reach back into the trajectories of the earlier chapters. They carry glimpses of lines of continuity reaching back into historical process as one casts a sociological eye over a vast period of social tension, shifting figurations and processural change reaching back some 1 500 years, and beyond.

Behind this image is not a logic of process or a grand hand of engineering design<sup>23</sup> but there is a definite developing pattern none-the-less. For me there has been a slow opening up of insight and empathy for social context within which I must place myself as a researcher / player in conservation and environmental education. This carries me into the present with a greater sense of respect and understanding for others<sup>24</sup> and for the problems past, present and future that we must share.

The contest amongst tribal hunter and conservationist had emerged over an extended period.

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<sup>23</sup> Developing historical and ecological accounts, of developing processes may have been instrumental in humans constructing a sense of the hand of nature or the hand of God behind much of what has been shaped within relatively blind earlier struggles.

<sup>24</sup> A sensitivity to the plight of others and a sense of mutual respect amongst protagonists I have found in my work in the Natal Parks Board and in looking into the history of conservation. Interwoven with this, however, is an often crass disregard for others that some humans are wont to have at times. There is hope for humanity in how agents and agency have exhibited a capacity to foster better self control and social responsibility within processural trends and changing contexts.

The developing struggles here, are not a simple matter of land and resource contestation amongst opposites by race or culture as one often finds in the dialectic maps of hegemonies in academic accounts and mediatory sociological research. The developing story is much more open-ended, broader and reaches back into the long-term, and is shaping of the narrowing interpretative frameworks of the present.

Despite a loosening of trade in the far flung corners of the Zulu kingdom during the days of Shaka, and the legal means of the time with which it was rapidly dispatched, poaching essentially developed with the colonial administration and the game laws. There followed an extended period of ambivalence and increasing tension within the cycles of antagonistic and exploitative use of wildlife in periods of disease and drought.

#### **iv A window in/on developing struggles within reserves**

Some of these residues of past process and processural trends are evident in the writing of Nick Steele<sup>25</sup>, an early and prominent game ranger writer on nature conservation activities in Zululand game reserves. His writings reflect a developing perspective within reserves. I draw on them for this part of the study to examine the shaping of the Other, later to be the target of the environmental education processes that were to emerge into the 1960's, 70's and 80's.

The accounts are reflections written some ten to twenty years after the events. The texts appear to have been rigorously contested and scrutinised by institutional interests. This appears to have enhanced accuracy but to mask the contentious. They are, however, still a useful record of both the day and of how the writer developed a vantage point on events and a 'detached'

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<sup>25</sup> Steele's notes are derived from diaried accounts and he appears to have included less direct references to these in later interpretative accounts which in my judgement lack background and are more a dramatised portrayal of events. Much of the processural detail is apparent but less obvious in the accounts of Player (1972). I draw more on diaried records and the chronology from Steele's works and ratify these with the less visible developmental patterns in the Player account. These men worked together in park management, the writings of both reflecting similar developmental processes of orientation on the Other and people / nature.

elevation and confidence to narrate the story with authority. It is the combination of diaried extracts from the times and a developing interpretative power that are also of note in reflecting on developing social processes within game reserves.

Striking in Steele's 1979 interpretation of diaries and events of the 1950's, 60's and 70's is a judgement that:

*Try as I might I cannot find humanitarian grounds to justify the influx of poaching parties into the game reserves, but I can understand the desire of an individual to want to run down and kill game; I can also understand young men wanting to test their bush skill and outwit authority (Steele, 1979:68).*

The social shaping of this view is clearly from within a game reserve. Steele has not only developed precise images of things but has also developed an authority and a confidence to articulate them. His perspective reflects an understanding of the 'hot blood' of the hunt but does not penetrate to the earlier Nguni common sense and communal urge to hunt and to drive out game. These past process orientations are also beyond a developing conservation science figuration as it learns to dance within a new game of sustainable natural resource management.. The players in this developing story are no less blind than the earlier colonial conservation which sought to maintain people and animals in sylvian harmony, and presumably the same is true of the Nguni of 1500 years earlier amongst the San hunter gatherers.

Another feature of Steele's records and interpretations is that they bring into doubt reductionist notions of 'police boys' (game guards) and poachers, and yet do not deny these tensions, simply locating them in the processural tensions of daily interactions and relationships with game-guard colleagues<sup>26</sup>.

Steele writes of monitoring game guards to ensure that they did their jobs properly or did not

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<sup>26</sup> A game guard colleague, before he was tragically killed in a vehicle accident, was involved in these tensions when game guards were found to have been poaching in the Umfolozi Game Reserve in the 1980's. He recounted how he and other Zulu colleagues was stuck between having an idea that something was happening but having no evidence and being seen as in collusion by omission amongst white colleagues. These axes of tension and processural trends are part of the continuing adjustments of the day.

leave the reserve at night to party and to seek the pleasures of the flesh as young man are wont to do. He explains:

*Sometimes a whole day would be spent, not in tracking poachers, but in tracking game guards to ensure that they were on patrol. Some of them were not above slipping out into the tribal reserve. The fear was that they could be attacked<sup>27</sup> and perhaps lose their rifles, even their lives. (or come to work in collusion with poachers). This apparent distrust did not affect the splendid esprit-de-corps which existed between the game rangers and game guards. They understood the need for monitoring. They appreciated<sup>28</sup> the presence of game rangers with them on patrol, it raised the morale and emphasized the importance of their dangerous task<sup>29</sup> (Steele, 1992:45. My bracket addition).*

The frank way that Steele deals with, and yet skirts some of the tensions of race, power relations and social status, reflects the narrative of early parks management. Into the 1980's conservation management began to reexamine itself and to made changes within a levelling of the power gradient and rapid social change into the present<sup>30</sup>.

Steele also writes of, as an inexperienced recruit, being 'attached to' an experienced game guard and reflects:

*Although I did not fully appreciate it then, I was working with men whose forebears had formed the bulk of the nineteenth century Zulu armies. These men with whom we tramped the hills night and day, dodging big game and skirmishing with poachers, still retained the fighting spirit of their illustrious ancestors. In all the field operations in which I was involved, I seldom saw a Zulu game guard's courage fail him. If anything their officers had to restrain them from overreacting in skirmishes. It had to be drummed into them that the idea was to capture the culprits and present them to the nearest police station in as good condition as possible (Steele, 1992:22).*

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<sup>27</sup> Note that he does not leave this judgement of possibility to the game-guard and does not entertain the idea that they might be able to do the job on the reserves and still be able to have contact with a local community that accept this.

<sup>28</sup> They 'appreciated' it in many ways, my colleagues assure me. They appreciated the activities of new young recruits working under, with and monitoring them, by engaging in games of cat and mouse with their vastly better bush craft, but so as not to be noticed. They also came to give Zulu nicknames that characterised rangers in the stream of shared events. Today many of the rangers cherish their oft double edged nickname that they might have come to be honoured by / be saddled with for life. Another processural feature worthy of note is the shaping influence of close control, intimate contact, shared dangers and an intermeshing of respect and trust that goes with the trajectories of these processes.

<sup>29</sup> Dangerous might be complemented by 'distasteful' here

<sup>30</sup> Here I merely mention this question in a positive light that the current rate of change does not necessarily merit. I do so believing that where there is a will and given time, the struggle for just opportunity and advancement will be achieved.

This vividly illustrates processural trends towards self constraint in the reshaping of Zulu warrior as game guard, with a controlled hunting urge in the background, doing the job of hunting others to stop the hunting in the reserve. Behind these descriptions of sedimenting relational dynamics and within the social process is the slow establishment of 'the Other as brother' into the 1990's, but not on equal terms and not initially with the opportunity to shape affairs except in a very limited sense and under supervisory control. The democratisation and equalising of things in terms of opportunity and status was to be a long struggle that we are still engaged in today.

The narrative also reveals the interplay of processural tensions that shaped legal frameworks for dealing with poaching.<sup>31</sup> Steele also reports how game guards initially worked in traditional dress until the addition of a hat which, when it tended to be knocked off in the heat of events<sup>32</sup>, was eventually supplemented with a uniform<sup>33</sup>. Here the point is that we are dealing with processural change within which participants were not the rational dispensers of injustice<sup>34</sup> but were steered within events and a developing vantage point.

Once again the Eliasian notion of a double-bind is useful here to derive some insight into social process. The conceptual deadlock is less apparent and behind events but it slides this way and that in the protracted establishment of conservation dominion within the nature reserve. The people beyond the fences are the Others, outside, whereas on the inside the 'Other as game guard' becomes 'mentor / brother / servant / employee / friend,' within clearly defined power

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31 Earlier tensions between conservators and magistrates and the frustration of lenient sentences being handed down to offenders are also of note here.

32 Steele (1979:8) reports that a common defence in court was an open question to the prosecutor asking *if he was walking along in the bush and was pounced on by a group of men in old clothes and beshus, he would not be inclined to retaliate first and ask questions later?* Added within developing processes of social control at the same time was uniform and whistle.

33 Colonel Vincent, one of the early conservation managers described how he was always at odds with the provincial government trying to get better salaries for his field staff. With a glint in his eye he recounted when he had failed once again, with 'sleight of hand' in budget extensions one year he managed to get approval for the state to supply uniforms. This news he passed on to his staff in lieu of a salary increase. Staff were delighted, he suggested, and he was also able to smarten things up.

34 Here, once again I do not make the mistake of overlooking that injustice are wrought in the processural events of human activity.

differentials. And not to be fixed for too lengthy a period before functional democratisation brings these relational dynamics into a new tension reshaping the Other as participant and 'the Other brother' as friend and colleague. These processes are more easily mapped and understood than acted upon in the pressures and narrow vision of the day. Such action will take people of broader vision and sustained processes of joint activity that are slowly reshaping of established perspectives within relational dynamics of separation as these developed in early conservation and the social history of apartheid in the region. Against this cautionary note of the current and more conscious struggles to reshape past separations of people and conservation, I place the inherent 'Zuluness' of the discourse in landscape and day-to-day activities in reserves. No developing story can be understood as a simple contestation amongst others shaped in opposition over time.

The reserves were initially unfenced and the sustained contestation with outsiders was often over ill-defined boundaries into Crown Land. On this, 'squatters' appeared and the government used these states land to resettle tribal African peoples during apartheid consolidation programmes, thus in some cases pushing back the boundaries and increasing the pressure at the fences<sup>35</sup>. The interpretation of features of these processes I leave to historians, my concern being that within the complexities of the lengthening and levelling chains of connectivity, key shaping forces and social change was happening in and around the reserves. Steele casts some light on a particularly interesting reshaping of communal tribal hunters into poachers.

The anti poaching story starts with Nagana hunters in the 1950's:

*The Veterinary Department still maintained numerous camps in the bush manned by a few men tending the bait cattle. These men poached from time to time and had to be arrested. It must have been particularly difficult for them to understand as most of them had participated in the game annihilation campaigns in central Zululand when thousands of game animals were destroyed to stop the spread of Nagana. These men were conditioned to hunting and had become accustomed to*

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<sup>35</sup> Of note here is that in other cases state land was allocated to conservation institutions as wild areas were ideal border and interstate buffer areas that could be controlled and monitored by the military.

*an ample supply of game meat (Steele, 1992:70).<sup>36</sup>*

Here the 'they' of the Other got short shift, being continuously harassed by Norman Deane<sup>37</sup> and his anti-poaching staff. Eventually the provincial government managed to rid itself of the influence of the national Department of Veterinary Services and Nagana hunter / monitors were removed from the reserves. This firmly placed the Other on the outside, barring decreasing doubt about the loyalty of game-guard staff working within.

As parks were demarcated on the ground, tribal poachers had initially come to hunt in large numbers with dogs and spears, as was the custom. Early on tribal peoples contested the loosely demarcated and partially fenced boundaries of the reserves. Player (1972:161) describes environmental degradation and the unfolding drama of a big hunt / mass raid involving hundreds of tribesmen. Steele reports on the more general pattern that:

*Poaching raids were well organised, consisting of groups of up to 40 or 50 men and boys (Steele, 1979:58).*

As boundaries were defined it happened that:

*The boundary fence cut right through the habitat of the game, leaving a large number of animals stranded outside and restricting the outward movement that had taken place for decades (Steele, 1979:61).*

Of note is the processural distinction between people and animals clarified in a contestation on the fate of animals that were fenced outside<sup>38</sup>. Connectivity with a head office and the rulings of local magistrates were significant here. Steele comments:

*There was a sharp division of opinion over the fate of animals on the outside: those in authority felt they would have to be forfeited in the interests of good relations; we in the field tried to point out that we were empowered to implement the game ordinances anywhere in the province, and we did not see the necessity*

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<sup>36</sup> This is from a later text of an earlier period, so Steele's reflections in his position as head of KwaZulu nature conservation need to be taken into account. His orientation is, however, consistent with his earlier work and diaried records of the time.

<sup>37</sup> An early game ranger in Hluhluwe. See Steele, 1992.

<sup>38</sup> This was early pressure for control of game by driving and capture skills that were to develop as key management tools in the soon to be secured reserves.

for compromise<sup>39</sup> (Steele, 1979:61).

This internal tension and policy shift led to changing external patterns of hunting. Local tribal peoples began to hunt more freely up to and even against the fences.

*...the poachers were swaggering along the fences in the knowledge that the game guards could not touch them. They would even stand there and fling abuse at the guards checking the fence, to the latter's increasing chagrin. The poaching parties, too, became bigger and bigger and one day in 1964 game guards from the eMhlanganweni camp in the south western corner of Umfolozi reported seeing mobs of tribesmen coming down the hills of Biyela country on horseback, on foot and even on bicycles to hunt outside the boundary (Steele, 1979:63)*

The shift in institutional power apparent here, heralds an emergent bravado and a return to past hunting responses as a counter swing amidst the freedom experienced within a loosening of social control. Steele describes how despite restraint from head office he came to order his ranger staff:

*...the game guard should not pursue them for a distance greater than 600 yards from the fenceline. Under no circumstances may the guards shoot or otherwise molest the dogs outside the fence and if serious resistance is offered they should retreat to their side of the fence and report the matter to the nearest ranger (Steele, 1979:64).*

Note how the instruction is not written to the game-guards but to their supervisors. Behind this is also a sense of lengthening administrative influence and power differentials amongst a growing administrative hierarchy, game rangers and game guards. The Head Office policy shift effects processural change, presenting a new challenge to the people working on the ground, and also the Others 'playing in the developing game.'<sup>40</sup>

*The poachers suddenly found themselves pressed up against the fence by game guards who had crept out of the game reserve and under cover of bush come up behind them. They were at first startled and would argue with the guards, who would snap the handcuffs on without further ado. The word spread and the problem was largely brought under control. The guards were careful to leave the*

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<sup>39</sup> Tensions within the early frontier autonomy and a growing financial and administrative accountability within longer chains of connectivity that were to lead to a functional democratisation amongst scientifically derived management plans are apparent here. These issues were to lead to a spate of resignations in the late 1960's and to commissions of enquiries as tensions bubbled over at both a local decision making level and within the broadening interests that emerged around conservation areas and issues.

<sup>40</sup> 'The game' with its thrust, counter thrust and unintended consequences is an interpretative processural image used by Elias. See Mennell, 1992:258.

*dogs alone at first but when they had led their captives a few kilometres into the game reserve with the dogs following, they dealt with them (Steele, 1979:64)*

Here again is a depth and a detail of shaping social process that serves to initiate a reshaping balance and a slow change in patterns of social steering behaviour and self control within contesting figurations.

The contest continued with children making up most of the internal poaching gangs<sup>41</sup> and an earlier shift from mass hunts to deeper intrusions into the reserves by smaller groups with firearms and without dogs<sup>42</sup>, and also the use of snares on the periphery.<sup>43</sup> Matters came to a head from time to time<sup>44</sup>, particularly in the mid to late 1960's with declining wildlife outside and with notable game guard and poacher deaths.<sup>45</sup>

The location and erecting of fences also constituted further complex and sustained struggles beyond matters of poaching<sup>46</sup>. In one case this involved the removal of big game that would previously have been hunted and driven out by tribes peoples<sup>47</sup>, and in another a contest on location and access to grazing by tribal cattle<sup>48</sup>. Here the struggle was between the amount of land to be cut off from grazing access and the need to restrict contact with buffalo carrying the

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41 Steele, 1979:66.

42 Steele, 1992:48.

43 Steele, 1979:72.

44 Player (1972:161) describes what must have been one of the last big hunts in 1962 when a local chief called a hunt by some 300 of his people in the Umfolozi. This was at a time of declining game in tribal areas and contestation of the boundaries of the game reserve. A key feature of this hunt is the restraint by both sides and a standoff in the evening before the police arrived. A number of poachers were arrested but the outcome of the event was a settling of the boundary with the tribesmen getting *three-quarters of the available land* (Player, 1972:169).

45 Steele, 1992:128 and 1979:74.

46 I have given central attention to poaching but there were many other features of interaction that are equally important in the shaping of nature reserves. See Carruthers, 1994.

47 Steele, 1979:81.

48 Steele, 1979:195.

so called 'corridor disease' transmitted to cattle through contact and pasture sharing.<sup>49</sup> After negotiations and a standoff at the fence line, Steele reports:

*The tribesmen backed down and we hastened to finish the western Corridor fence. We now had 2,5-metre-high fences on the eastern and western Corridor boundaries, which abruptly stopped the integration of cattle and buffalo and protected the tribesmen's crops (Steele, 1979:196)*

Somewhat before the final demarkation and building of the fences the protecting of crops and stock from wildlife brought an interesting turn of events. This was to initiate an equalising of developing power relations<sup>50</sup>.

Larger game left the reserve to risk feasting on tribal croplands, as had been the custom. Later, lion and hyaena also broke out to feast on the cattle of the Zululand grasslands, as had also been their custom. Steele recounts the eloquence of an early tribal response:

*It was raining heavily as we rode but the little knot of people were waiting for us when we got to the arranged spot. One tribesman told me bluntly to 'herd my cattle' referring to the game, and a few Zulu women with naked babies in their arms stood in the streaming rain while we shivered in our saddles. Talk and promises were a waste of time: the problem was that we had not yet completed the fence, which was the only thing that would protect the meagre crops (Steele, 1979:37)*

When the fences were completed the problem of escaping animals continued, a sustained axis of tension exacting continued contact with and amongst the Other. Note Steele's somewhat abstracted respect for Zulu people developing with his intimate early contact amongst Zulu game guards whilst on patrol and through contact with tribal peoples on the outside in his role of custodian of the land and protector of wildlife.

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<sup>49</sup> This was no doubt overplayed. There is no clear scientific understanding even today except in terms of regulations governing the removal of some species of game to cattle areas. The key issue appears to have been that the locals still knew of the earlier conventional wisdom of keeping cattle and wildlife separate.

<sup>50</sup> Elias warns unpredictable turn of events as they also serve to challenge any sense of certainty that might tend to develop as a process sociology study advances. His vantage point thus not only reveals what we might find difficult to face about ourselves and our history, but also loosens things up to the frustration of those who want to wrest a certainty of things into a retrospective critical accountability and rationalist processes of redress.

## v Other poachers and wider, less visible processes of change

There were people other than tribal communities who were involved in poaching from the outside, although these activities have not been given much attention thus far. This level of attention tends to be the norm as the issue of poaching dominated all others early on and is that which evokes considerable and changing emotions today<sup>51</sup>. Anti poaching processes had shaped a tendency for 'white' game-rangers to be seen to have persecuted hungry rural peasants as the green islands they created became holiday retreats for the rich whites from the cities<sup>52</sup>.

Government officials and established 'white' farmers whose forebears had hunted for *biltong* each winter season were also inclined to poach, especially in the Corridor. This state land between Umfolozi and Hluhluwe game reserves was bisected by a main road making night hunting easy<sup>53</sup>.

Revealing the processes of drive changes amongst white farmers is more difficult than examining those of game rangers and reserve neighbours. These changes stretch into the start of education programmes in reserves, the mass media and the conservancies movement as this developed amongst farmers. It was, however, by chance that I came across one interesting pattern of connectivity that I include here to reveal how much of the complexity of social process must remain hidden to us today.

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<sup>51</sup> The display of piles of snares for tourists to look at has been fairly common. This has won support and admiration but has also branded the Other as 'a cruel black poacher who makes animals suffer.' At the same time, and more recently, there has been a shift to a concern for why neighbours have to poach and what can be done for them. This has come amongst a levelling of power relations and a moral turn which people have and are developing a greater concern and sensitivity to each other. Here others as brothers begin to acknowledge 'each-other' in developing struggles. These orientations were not widely apparent early on and are examined in the latter parts of this study as they are developing today.

<sup>52</sup> Carruthers (1993:2) eloquently dispatches both stories of the brave and accounts of the persecuted and the destitute, all needing closer, less patronising and over simplified attention within the prevailing mythologies of wildlife conservation.

<sup>53</sup> On a visit to Vryheid to conduct a school field trip, a farmer's young son told me how his granddad hunted in the game reserves. By contrast, his dad did not allow him to hunt on the farm except for guineafowl, and in season.

The curtailing of poaching by 'whites' appears, in Steele's account, to have been effected by a few notable prosecutions<sup>54</sup> when hunters were heavily fined, losing rifles and vehicles to boot. This harsh treatment by the courts led to resentment amongst 'white' hunter groups and a suppression of hunting, an issue which may have burst forth, not in a direct struggle at the fences but in a later parliamentary struggle. It may, for example, be no coincidence that the origination of a parliamentary enquiry into the activities of the Board was linked to hunter / farmers in Vryheid<sup>55</sup>. This possibility reveals the depth and scope of the web of processural tensions in situations of profound social change.

## vi Continuing, relatively blind struggles

Throughout the contestation on the fences and in parliament that secured dominion over the land, few of the participants had a sense of the bigger processes, social implications and change. There is some evidence in the next chapter of park officials developing a growing sense of and ability to manipulate things to their advantage through the media and by strategic planning. Against this one finds similar developments amongst other contestants, particularly notable being a disposition for contesting community groups to respond, 'we were not consulted.'

All involved in earlier developing processes that entrenched radical separations of 'dark and insensitive' Outsider, are now immersed in processes that are reshaping established relational dynamics within new, shared and more democratic power relations. Developing capacity to share and to exercise some control within these developing processes is still slight as is a sense of a relatively blind past shaping of the people involved and the struggles of the present.<sup>56</sup> In

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<sup>54</sup> Steele, 1979:65.

<sup>55</sup> Provincial Council of Natal, 1972:51.

<sup>56</sup> Here I look back to colonial administrators, King Shaka and beyond, all connected within developing intergenerational processes. In distancing myself from critical discourses which seek rational explanation and plans for retribution I do not take the equally ridiculous position that developing processes were blind so all are blameless. This link between blame and responsibility is not useful or necessary and can be displaced by a sensitivity to an equalising

the emergence of environmental education none of these refinements are apparent early on. The Zulu neighbour, a separate Other and on the outside, only slowly came to be seen as someone in need of education so that with a new awareness poaching would stop. Long before this, with the establishment of conservation dominion over the land, communal mass hunts first and then widespread poaching, had begun to decline.

Looking back on the pattern within the developing perspective of the park ranger on horseback, provides glimpses of the profound reshaping of the mass mobilising and hunting that had been so deeply sedimented within the Zulu and other early peoples. That this happened alongside an apartheid political system and the engineered movement and disruption of indigenous people can make the events around the reserves appear laden with suppression and subjugation<sup>57</sup>.

Although this broad social orientation was behind the events of the day and in the peoples of the time it is not immediately obvious within the processural stream of encounters that firmly shaped the Other outside reserves, people clearly separate from, and a threat to, nature.

Key processes appear to be how the threat from people outside was constructed within an experiential intensity of fears for the reserve and its wildlife and past encounters during an unfolding battle to control poaching. There was little intimate contact with a more and more distant enemy and the pattern of reserve communication became centred on processes of anti-poaching management to decrease the threat to the reserve. There was, however, almost daily contact with tribal peoples, visual experience of the invisible threat and also vivid experiences of rural degradation against the lush recovery of wild nature in the reserves. Even in times of overstocking and drought when both suffered, the contrast between green island and

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of imbalances and a struggle to deal with the problems that still confront contestants. This is developing today in much of the work of the environmental awareness officers with neighbouring communities but we have some way to go in understanding these process.

<sup>57</sup> As discussed earlier in this chapter, one has to be cautious of generalisations in historical research. These tend to simplify broad social trends and to thrust ideological assumptions into contexts that were more shaped by the processural dynamics at a micro-sociological level.

developing rural moonscape was striking<sup>58</sup>.

There were some joint ventures like the exchange of meat for labour but this did little to reduce tension. An important irony is that some of the rural indigenous outsiders had from early on become game-guards, 'insiders' supervised and monitored within the established distinction by race of the times. The sustained and intimate contact of rangers and game-guards became a complex terrain of experience of the outsiders.

A nagging pattern of threat, fear and suspicion amongst the 'established' on reserves,<sup>59</sup> with few opportunities for positive contact with 'outsiders' other than city and overseas tourists was to be sustained into the 1980's and a levelling of power gradients. Then within a changing socio-political context, increasing joint venture contact emerged as internal and external pressure for reserves to respond to neighbours' pressing resource needs like thatch, firewood, medicinal plants and the possibility of curio sales to tourists, brought changing dispositions into the 1990's. Within this shift, changing social processes are slowly reshaping the others on the outside into less distant neighbours, with less sharply drawn divisions as others amidst increasing intermeshing and more explicit strategies that see education and material benefits flowing into neighbouring communities. This is examined later in chapter ten as neighbour relations policies and programmes developed into the 1990's.

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<sup>58</sup> Bush encroachment and other habitat change are also of note but must remain beyond the scope of this study. Suffice it to say that within the ecological myth of natural harmony the wilderness scientific discourse came to be based on images of the restoring of nature before and without man. As the likes of Player and Steele moved on and the idea of wilderness took hold, many managers and scientists lost sight of the idea that the landscape that supported the abundance of wildlife was in no small measure, created by fire in the hand of man and vegetation in the mouth of his cattle. Management became a matter of burning to create a patchwork of habitats for wildlife and brush clearing which supplied rural communities pressing up against the fences with much needed firewood and thatching grass.

<sup>59</sup> This conventional wisdom is a useful descriptor but has dangers of misinterpretation for, on the surface the fact of the reserve and the fences had a long history of acceptance. Elias describes this as *mutual self restraint* (Mennell, 1992:137) sedimented processes of shifting social control apparent within the monopolising conservation of Shaka, the confusion of colonial conservation and around the early nature reserves.

## vii Dominion, dogma and the Other as a problem outside

As conservation management figurations became 'established' on the inside they came to have dominion over the land and to administer the physical and social space thus consigning threats and 'outsiders' beyond the fences. Park rangers came to develop a highly simplified and emotionally charged view of these others as they struggled to define and to administer social space within reserves. The separation of people and nature and the struggle with poachers thus consigned threat and others to the periphery, outsiders outside the reserve.

The emergent social orientation of the establishing administration exhibits developing '*beliefs towards extremes of illusion and doctrinaire rigidity*<sup>60</sup>.' This was built on fantasies as fears confirmed within the intensity of day to day experiences of threats to the reserve. As the intensity of the fight against poachers and threats to the reserve decreased so a doctrinaire rigidity was to soften, bringing with it more neighbour relation programmes which developed into the 1990's.

This change was to be an extended struggle with sedimented orientations slowly changing through the joint processes of external pressure and sustained positive contact. A similar slow struggle and change was apparent in patterns of hunting drives amongst the Zulu during the struggle against poaching. Here as we have seen the sustained processes reshaped the sedimented drive orientations of earlier Zulu tribal figurations. In a similar way the sedimented orientations of the conservation management to others on the outside, threats and people separate from nature were shaped within the same developing story.

With the Eliasian interpretative tools of 'established and outsider' it is possible to see back and into the social processes that had and were to be wrought on and amongst people during a sustained reshaping of environment, the peoples themselves and their drives and self control. This has certainly not abated today.

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<sup>60</sup> Elias and Scotson, 1965:95.

The axis of tension within much of the social change here can be traced back to the early paradox in orientation to wildlife and to the processural trends in a struggle of over 150 years. The paradox was that to hunt in the 1800's was to conserve but by the 1950's to conserve was not to hunt, unless you were a game ranger, and then it was called culling. This change reflects a profound inversion of vast complexity amidst the social change of this period. The change came as processural shifts and ruptures within contesting social figurations. This developed within lengthening chains of connectivity as more and more people became bonded together amidst longer and stronger patterns of social interaction, now developing on a global scale.

The historical stigmatization of the outsider as dangerous, *dirty, morally unreliable and lazy, amongst other things*<sup>61</sup>, came within the pattern of processural events and the fears associated with outside threats. In being consigned beyond the fences, and with people thus being strongly separated from nature, there developed a latent ambivalence to people and their concerns<sup>62</sup>. The influence of outsiders none-the-less remain significant in the shaping of nature conservation. In his interpretation of Eliasian 'outsider' ideas Bauman (1994:162) illustrates how that which comes to be ascribed to the outsider is an amalgam of the fantasies and fears of the insider under outside threat. He states:

*the outsiders are the gathering points for the risks and fears which accompany cognitive spacing. They epitomise the chaos which all social spacing aims staunchly yet vainly to replace with order, and the unreliability of the rules in which the hopes of replacement have been invested. If only they could be confined to the outer fringes of social space, perhaps the outsiders could take all the rest of ambivalences, scattered all over the place, with them....(Bauman, 1993:162)*

It was the slow processes of emerging administrative rules within reserves that shaped the other outside. These processes shaped the rangers inside with a dogmatic dominion of 'administrative exclusion' of people from game reserves. This did not apply equally to all outsiders as through contact and education expanding figurations of insiders increased. These

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<sup>61</sup> Mennell (1992:122) on the *Established and Outsiders Relations* of Elias.

<sup>62</sup> Carruthers (1993:11) comments on this orientation and a recent shift to 'more humanistic approaches.'

processes of sustained positive interaction did not include rural African people for some time. This is essentially what happened in the establishment of dominion over the land and in the shaping of the other on the outside, in story of the nature reserve<sup>63</sup>

As the struggle for and against 'poaching' served to wrest control on the inside to game-rangers, so control was being lost over the world of wildlife around and within the fences. The animals were in abundance, soon to the point of threatening to destroy the flourishing Eden from within. With this new axis of tension came other social processes of change and the development of knowledge and power that was to lead to the call for environmental education.

### **viii Towards a developing call to educate the Other**

The securing of the fences had thus slowly served to confine and to shape the other outside, securing spatial dominion. Dealing with developing threats inside and establishing control over species and ecosystems was to bring with it an epistemological certainty that brought on an urge to educate others. This was a parallel and intermeshed process where an interplay of direct observation of wildlife (experiential involvement) and the detached view of science were to interact to develop both knowledge and power to go with the emerging spatial dominion (Chapter 6). This was to initiate a lengthy detour via detachment from the other and a period when environmental education was to struggle for clarity within a pedagogic discourse of social intervention to exert control over and to change the other by 'creating awareness.' (Chapters 7 & 8.)

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<sup>63</sup> These observations should not be seen as generalisations but as descriptions of broad processural trends. Within these there are always examples of contrary and smaller scale processes shifts as process trends must always remain open ended. Examples of process change and difference with the broader picture are rangers who had sustained contact with tribal peoples on the fences and came to start neighbour relations programmes earlier than others. One has to look into each context with appropriate sensitising concepts to give a sense of the processural trends in a given situation.

**Involving rhino capture in a wilderness of ecstatic detachment\***



\* 1. Peter Potter steering the rear as Ntombela, Player, Letley and Harthoorn wrestle a young rhino. 2. The same young rhino with John Clarke and Harthoorn under the eye of John Page behind the movie camera. 3. Ranger and tourist looking down on the White Umfolozi winding through the wilderness. 4. Ranger and game-guard Sazi Kunene on trail with tourists at a rhino rubbing post near a water hole.

## CHAPTER SIX

### Developing Knowledge/Power<sup>1</sup> to Educate the Other

*The power chances of specialised groups are further increased if they manage to organize themselves in a cohesive way .... (Mennell, 1992:124)*

The previous chapter revealed, in some detail, features of the shaping of the Other on the outside, and sedimenting within this of an oppositional separation of nature and people. These trends were accompanied by intermeshed social processes that developed a sense of knowledge and certainty that was to shape a thrust towards environmental education as a response within a developing picture of environmental degradation outside nature reserves and in the region as a whole<sup>2</sup>.

A urge to educate others came with a growing epistemological certainty and with a developing sense of the 'unaware' Other. This perspective developed through processes where rangers noting that things were getting successively worse on the outside were interacting with people who came to share the meaning, refreshment, awareness and relevance to be found in wild nature. Through these sustained processes of rangers sharing experiences with tourists and school children in the wilderness a wide ranging institutional imperative to educate

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<sup>1</sup> The notion of socially constructed institutional knowledge / power referred to here and related to the urge to educate others, is an epistemological conceptualising of a developing social process. Here a shift, or a detour via detachment as Elias refers to scientific social processes, takes place on the reserves bringing more reality congruent symbols which, within the pressing risk of the time shape, education as a responsive and developing process of social control within a slow levelling of power differentials as the previously weak become stronger within rapid socio-political change in the region and South Africa as a whole.

<sup>2</sup> This is not to restrict the sense of environmental degradation to nature reserves, as it happened differently in a wide range of contexts regional, national and global in different ways. Many of these were to merge into the 1980's in a series of conferences on conservation and environmental education.

'target-groups' of Others<sup>3</sup> developed into the 1980's (Chapter 7).

The processes that developed the necessary knowledge, power and drive for this developed within the axes of tension inside game reserves, and amidst lengthening and strengthening chains of connectivity within expanding administrative hierarchies<sup>4</sup>. An expanding epistemological certainty and a management orientation within these processural trajectories opened the way for the emergence of diverse educational responses<sup>5</sup> within the expanding conservation institutional figuration, the symbol for which became the white rhino.

The rhino symbol and social processes associated with the saving of this animal are what reveal the chronology of developing shifts shaping a thrust into education. In simple terms, within an extended processural struggle, the saving of the white rhino / the control of habitats, through the human interactions in, around and to this end, wove an advancing epistemological certainty around nature and people that was to underpin environmental education in the 1980's.

Epistemological certainty was a necessary prelude to the thrust into institutionalised education. The necessary knowledge and power for this change emerged amidst growing dominion over the land within the ecosystem management figurations of rangers and scientists in the game reserves. To examine this as a developing social process, once again I draw on the sensitising concepts of involvement and detachment of Elias. The study reviews the pattern of the interplay of these social processes within the lives and struggles of the time. Observations are centred on developing processes of experiential insight in tension and interaction with the detached capital of interconnected socio-symbolic images possible with a developing science of ecology

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<sup>3</sup> This technicist orientation came with the early knowledge being organised in a rational framework of management plans as the length and strength of connectivity and influence increased.

<sup>4</sup> Two intermeshed processes are possible here. The first is the rangers advancing with the hierarchies and the second is the language of the distant vantage point of the administration within and around this.

<sup>5</sup> That this was not a rational and linear process will be obvious in the text and in that all kinds of education emerged. See next chapter.

emerging in and around the *White Rhino Saga*.

The rhino story is but a thin processural thread reflecting many wider and similar social processes of developing epistemological certainty<sup>6</sup>. In the reserves this emerged within an interplay of aesthetic pleasure and a love of wild nature, as well as an accompanying sense of a reality congruence of knowledge<sup>7</sup>. Greater conviction and certainty thus came with increasing control in / of / over and for wildlife and wilderness.

The long-term processural origins of the advancing human orientations of dominion and increasing symbolic power may reach back to the development of fire, to early tribal and colonial hunting to conserve, and to the nagana struggle when game reserves first became wildlife sanctuaries. All of these preceded the processural trends in the game reserves of the mid twentieth century.

The events in the game reserves might thus be seen as part of a long-term story and also as somewhat of a break or a shift in orientation bringing about a changing perspective and a more differentiated sense of surroundings within a developing interplay of social processes of involvement and detachment in wild nature in reserves. The developing processes in game reserves thus appear as a clear break or shift, but this should be seen within wider patterns of change amidst lengthening connectivity and broad advances in the power of the natural sciences.

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<sup>6</sup> See Wagner (1994a:5) for a sense of the epistemic certainty of the 1960's and for a developing autonomy that shaped the human condition of assurance and authority accompanying this. Similar processes to these in the social sciences of the 1960's are to be found in the developing story on nature reserves. These processes of certainty and individual conviction reach into the development of early environmental education and developing conferences on conservation and environmental education into the 1980's.

<sup>7</sup> The link with the developing natural science faculties in universities was significant. This is noted in increasing field trips and international visitors to reserves (NPB Annual Reports from late 1950's). All brought the latest developments and ideas and were very willing to share these and to maintain contact with providers of aesthetic pleasures and vivid examples of what was in the new ecology textbooks. Also, rangers often challenged subtle features of the textbooks with a confidence that came with practical field observations.

In the developing story examined in this chapter, the advancing processes in the reserve are picked up and mesh within a developing imperative to educate the Other, and this process develops into the environmental education of the 1980's, examined in the next part of the study. What was happening in the micro-contexts of the nature reserves was thus part of a broader processural trend in and around the developing sciences and the greater reality congruence that these provided amongst humans who increasingly experienced knowledge as an individual state of awareness<sup>8</sup>.

Much of the story of developing patterns of interaction in the game reserves of the 1950's, 60's and 70's is revealed in the experiences and developing orientations apparent in the works of Steele and Player<sup>9</sup>, game wardens of the time. The *White Rhino Saga* was written by Player in 1972. It and Steele's books of 1979 and 1992, on 'anti-poaching and reserve management by rangers on horseback,' give a sense of some of the struggles within nature reserves and the interplay amongst game rangers and scientists within the processural struggles in the establishment and management of nature reserves. The processes of coming to understand and control wild nature brought with it a growing knowledge and power that was to underpin the advent of education in the Natal Parks Board, and to interact with the emerging field of environmental education in southern Africa.

To get a sense of this processural shift I read the books and reports of the times, noting axes of tension and processural themes. These patterns were identified, linked and cross referenced within the books of Player and Steele, texts rich in the reserve perspectives, events and

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<sup>8</sup> The insight and power associated with science and technological advances was not only behind the widening and deepening global environment crisis, but also in offering to solve these problems. See Beck (1992) for an account of this paradox and a developing critical reflexivity that is self-perpetuating within scientific social processes.

<sup>9</sup> This portrayal of events I have set against features of those told by Steele (1979 & 1992), and reports and documents of the Natal Parks Board. I have once again selected a narrative account as this gives a sense of the developing orientations of the people involved, the pattern of social interaction and a sense of control over surroundings.

experiences of these times. Axes of tension and developing processural trends were checked against and linked to the broad sweep of events and trends reported within the Natal Parks Board annual reports for this period. This process served to bring key trends into focus and the text of this chapter was constructed by giving attention to the patterning of the interplay of involvement and detachment within the social processes identified. To interpret features of this, besides use of the Eliasian sensitising concepts mentioned, I draw on the works of Lewis Mumford (1938) for insight into changing orientation in the city and on the recent works of Zygmunt Bauman (1990; 1993) for a sense of the shaping of aesthetic orientation in social surroundings.

Whilst grappling with features of developing social processes I walked the hills of Grahamstown recalling experiences with nature reserves managers and of early rhino capture operations. The experience and images of Grahamstown became a means of stimulating and supporting greater depth of insight for mentally reconstructing the developing vantage points, axes of tension and social processes in reserves. Dassies and the rocks of the Botanical Gardens became my nature reserve overlooking and impinged upon by the townships and squatter shacks doubling for the threat at the fences. The time in Grahamstown gave me the outside view to write and to interpret with some degree of objective detachment, but my walks and continuing work in Kwazulu-Natal brought back a balancing involvement.

As the story continued within and behind the processural line of development towards epistemological certainty, impinging on it from outside were the politics of the United Party<sup>10</sup>, the small closely knit government administration of Natal.<sup>11</sup> Other processes were a growing

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<sup>10</sup> The Natal Parks Board was chaired a member of the ruling United Party of Natal until 1974 (Geddes-Page 1987:5, In NPB, 1987).

<sup>11</sup> Notable are early posts going to postwar military men and patterns of affiliation to service clubs, churches and groups like the Free Masons.

connectivity with international scientific organizations<sup>12</sup> and contact with world conferences that were to articulate the global ways and means of environmental education later into the 1980's. This sweeping backdrop of social, spatial and ideological bonds was to direct and to enable much of what happened, but the shaping processes essentially occurred on the ground, in nature reserves and within the stresses and struggles of the emerging nature conservation organization in these contexts. Although I draw on the narratives of two prominent people and their accounts of what happened on the ground, it is not so much them or what they did, but the processes that tell the story of developing interactions shaping epistemological certainty and the urge to educate others.

### **i      Developing ecstasies of involvement and ecological insight**

A drought in the early 1950's was followed by a steady growth of game populations into the 1960's. By the time Player returned to the Umfolozi the deserted, post-nagana wilderness of 1952, reported at the opening of the previous chapter, had been transformed:

*The view from the house had no equal in Zululand. To the south lay the white Umfolozi river with golden sand banks and dark green sycamore fig trees. I could see waterbuck standing in the water and among the tall phragmites reeds. Troops of baboons played on the sand or fed on the fig trees while grey duiker, bushbuck and warthog followed below, eating what the baboons dropped.*  
(Player, 1972:42)

Not only had the wildlife recovered but the insight and attachment of Player to the land had, and was, changing. The post nagana and 1958 images of Umfolozi, written 20 years after his first contact with the area, cannot be said to penetrate to early social contexts and orientations

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<sup>12</sup> Being a leader in wildlife conservation, the Natal Parks Board had access to international developments through the International Union of Conservation Nations (IUCN) which was to develop a World Conservation Strategy in 1980. Despite a growing political isolation, owing to the apartheid policies of South Africa, and a withdrawal from much active participation in this world arena, strong connections were maintained, particularly on a personal basis.

with any authenticity<sup>13</sup>. The discourse does, however, reflect a man of confidence and conviction after twenty years of struggle to secure the land, to overcome outside threats and to conserve species and habitats. The processes of frontier breaking hard work with ranger, game-guard, scientific, administrative and community interactions, local and international, have left their mark.

The narrative and an image of the elevated vantage point of the house on the hill has a sense of a custodial dominion over the land. This sweeps over and signifies intimate features of the Umfolozi game reserve. These images also reach back to a sense of early Zululand initially constructed under the influence of Will Foster in the early days<sup>14</sup> and all are woven into an intricate tapestry through a lifelong intimacy with Maqubu Nthombela<sup>15</sup>. Player and Nthombela came to share a spiritual attachment within the Umfolozi wilderness<sup>16</sup>. Their vision and ideas, and the supportive dispositions of others were constructed within a shared struggle amongst field, scientific and administrative staff during rhino capture and other widening struggles.

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13 With this issue in mind, when I approached interpreting the texts, I was surprised at the correspondence of interpretations with diary extracts in works by Steele. For example, the vivid capturing of changing social relationships and the ups and downs of the struggle. It was only later in the text that detail and direction waver and the reader is left somewhat suspended. This may be a true reflection of the tensions Player was subjected to in the advancing capture programme with an imposition of greater central control. Steele ran the show by this stage as Player was travelling overseas and selling rhino. His work provides greater insight into events but has less material from the time. This may be accounted for by a change in the style of management reporting, accounts of events and observations eventually developing to management-by-objectives. This shift came with investigations into the activities of the Board and greater central administrative control. These lengthening and strengthening trends are consistent with the observations of Elias and were to give rise to greater instrumental and technicist orientations covered in the next chapter.

14 Player, 1972:37-42. This is an amalgam of personal utopian disposition and a lifetime of collated anecdotes by a highly competent Zulu linguist who was revered for his symbolic power by local peoples. The discourse is replete with error, illustrating how in those times Will Foster had constructed his own utopian myth to reconcile the imperative to preserve wildlife. This reaches back to the earlier paradox of Zulu and Colonial administrations and a further paradox to emerge within the wilderness underpinnings of environmental education into the 1980's.

15 Player, 1972:45 and throughout the book.

16 Along with an expanding network of others working in the reserves, in administrative hierarchies and visiting game reserves for example.

Steele was also a key role player and an emergent visionary in his own right, as were others who have not published accounts of these times. The accounts referred to and Steele's references to diaries of the times make the combined texts a useful source for penetrative sociological insight into the processes that brought about the epistemological certainty of the 1980's<sup>17</sup>.

Steele quotes from a patrol diary about the Mpafa stream:

*The banks are dotted with Acacia Robusta and mthombothi trees and on the ground the herb Decliphthera flourishes. White rhino relish the sandy bed as a dust bath and resting place and one has to be careful not to run into them. In the trees purple crested louries, trumpeter hornbills, hadedas and a host of smaller birds abound. There are a few pools of water and these are frequented by masses of masked weavers industriously building their nests (Steele, 1979:35).*

Note the detail with which observations are made and an involved pleasure in the complexity of ecological connectivity which stretches and is lost to the interpretative imagination and shifts back to being a record of observations. These field notes of a game ranger were carried back into future interactions in the reserve and reports to a head office in Pietermaritzburg<sup>18</sup>. As tensions and problems arose in the reserve these were carried back to the bush. On/after another patrol he wrote:

*Pied crows and Cape ravens croaked overhead and two jackal buzzards did aerobatics. But when I offsaddled on the lower point of iMpanzakazi my mood changed because of the dreary signs of over population. Africa, it seems, has been stripped, raped, beaten and is now the slave of the very people who first discovered it. No immediate catastrophe will overtake it because of the increasing erosion, but gradually it will become a breeding ground of discontent, which is never hatched in a healthy atmosphere (Steele, 1979:43).*

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<sup>17</sup> The three biographical accounts with references to diaries of the time were found to add to an emerging picture and to differ in significant ways. They were further crosschecked against the Natal Parks Board reports of the time, enabling me to check the chronologies and aspects of the events. Also important was a sense in which the narrative of administrative distance effects a transformation in events creating an objectivity of distance. This was to be instrumental in the shaping of more and more objective management routines in a growing organization.

<sup>18</sup> The pattern of reporting was to become more objective and goal directed with the emergence of management-by-objectives into the 1980's. This developing pattern corresponds with the emergence of an instrumentalist orientation centred on communication-by-objectives in the interpretative services of the 1980's. This trend was met with some resistance apparent in Vincent (1987:3, In NPB, 1987) stating of interpretation, 'It is also an ongoing process which has aims and objectives which cannot be measured in absolute of finite terms.'

Here there is a rapid and passionate mood shift and a despair that is talked away but left hanging as a continuing axis of tension to return in ongoing processural events. In another diary extract he writes:

*It takes several hours to absorb the atmosphere of the bush when setting off on a lone patrol. At first my emotions cannot be trusted and understood. While riding in the vicinity of iMpembetwini stream westward to eNqutshini I was troubled by conflicting emotions and a good deal of sheer loneliness. But after offsaddling and hobbling my horse, drinking tea and retreating to the river a surge of contentment swept my depression away. I was at home again in the bush. A cool south wind added to the pleasantness after so much heat.*

*Game guard Tamisanga gave me an interesting report-back on his observations and activities here at eNqutshini. He told me of a hyena that steals meat from the guard camp. He says as it moves off in the early hours it sometimes sounds as if it is 'laughing while riding in a cart over a bumpy road.'* (Steele, 1979:46).

The interplay of solitary escape and anecdotal social interaction are particularly striking in a world of exciting images, shared joy and fantasy intermeshed with, and rubbing up against, the struggles and tensions of the day.

## ii An evolving landscape of observation, fantasy and indigenous story

Player spent much of his bush time with Maqubu Nthombela when they talked of the area, things spiritual of the old times, and interpreted much of what they came across, much of what troubled them and any new ideas. Player writes of the ridges of Mtunzini:

*Over thousands of years the continual flow has worn cliffs and caves on the south bank. It was in these caves, the Mplopeni, that the Mandhlagazi tribe slept before their final assaults on the Mtetwa tribe during their periodic internecine wars. The cliffs are red, dotted with rich green strangler fig trees. In some places the vegetation is so thick that the mouths of the cliffs are closed, and give shelter to hyena and warthog. Birds abound - mocking chats, black saw-winged swallows, pied and black crows, hammerheads, mousebirds, kestrels and owls* (Player, 1972:47).

Player developed an orientation to construct a sweeping 'fantasy<sup>19</sup>' that interlinked and

<sup>19</sup> Here I mean a creative synthesis of images derived in social and reserve interactions and crafted within space / time / ecological processes images of the park.

signified things in history and located these within his deepening skill to interpret the landscape in compelling images and stories. With his companion Maqubu, intricate and sweeping images and associations interacted in the sheer delight of their shared wilderness. This was under continuous and mounting threat from people and habitat destruction beyond the fences and into the reserves. He writes of the development of a waterhole and its socio-ecological significance located in Zulu history and then describes time spent observing animals:

*It was a pan such as this I overlooked from my perch in the tree. Maqubu lay hidden in the grass.*

*An old warthog with enormous tusks came out of the bush and took a few hesitant steps towards the water. Although I was well hidden behind the green boughs of the Schotia tree, it gazed in my direction, aware with the superior quality of animals, that danger was near. I was only armed with a camera and could not communicate that I had no intention of harming him.*

*Eventually the smell of the water and his own driving thirst overcame his suspicions and he trotted the last few steps to the water. He lowered his head and drank, deep and silently except for a few sucking noises. After drinking he looked around then flopped into a pool of thick mud. The delightful all encompassing feel of the mud erased all his fears and he uttered little squeals of joy, and clicking sounds.*

*He rolled on to one side and over on to the other, then sat on his haunches like a dog and pushed his anus into the mud, squirming with obvious enjoyment. After completing a number of circular motions he sat for a full minute like some old philosopher<sup>20</sup> contemplating a profound thought. Then as the ticks bothered him he moved, scraping his anus through the mud again (Player, 1972:136).*

These fantasies and aesthetic pleasures contrasted with the recurrent worry of poaching and squatters demolishing wilderness and its delightful creatures. Player harps on this developing problem throughout the story of the white rhino and at one point describes the problem of squatters on reserve land:

*The squatters chopped down trees, ploughed up and down hills, and planted mealies (maize) and kaffir corn (millet).*

*When I remonstrated with one magistrate he acidly replied, 'But good God, man, these people have to eat.'*

*'Quite right,' I replied. 'But their grandchildren will be eating stones if you don't take the trouble to understand land management principles' (Player, 1972:155. Second brackets mine).*

These problems and escalating tension when he led conservation in Zululand brought deepening mood swings between time at work and in the wilderness. The latter became a

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<sup>20</sup> Readers familiar with the works of Elias on philosophy may make merry but should not assume any familiarity with these texts in these images. If Richard Kilminster comes on a visit to South Africa we must organize for him to see warthog at a waterhole.

source of enveloping recovery and rejuvenation of the spirit. Steele reports Player responding in one crisis when a researcher reported the need to shoot 100 rhino in the reserve. At the time the game capture unit was concentrating on the rhino still in tribal lands as the first priority.

Steele states:

*Ian looked at me disconsolately, then out of the window into the lovely wooded hills of the game reserve. 'My enemies I can understand,' he quoted 'but God protect me from my friends,' We felt very lonely; we desperately wanted to continue capturing the fugitive white rhino standing confused in the grassland which for generations had been their home, but were now filling up with bawling cattle and barking dogs (Steele, 1979:127).*

These and many other issues Player took to the wilderness and there he sought solutions, brief escape and solace, along with his friend Maqubu. Maqubu Nthombela was a Shembe<sup>21</sup>, and a significant figure in the co-shaping of this discourse, references to him being interwoven throughout the story of 'The White Rhino Saga.' Player recounts:

*Maqubu and I sat talking for hours, his white teeth glinting in the firelight when he laughed (Player, 1972:142).*

And, of another occasion when stalking a rhino:

*I looked at Maqubu. He placed his finger over his lips and whispered in Zulu, 'Wait.' (Player, 1972:76).*

When discussing fear Maqubu is reported to have said:

*'In your mind you feel you will not run fast enough. This is not fear. You also want to do everything yourself. For ten days now we have been working. You are tired in your mind,' (Player, 1972:103).*

Although, throughout the text Player appears dominant and thus to hold the right to 'draw the charts' of their shared social space, Maqubu was to be silent partner, brother in arms and valued friend who later also came to chart and to interpret ideas on public platforms. When this

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<sup>21</sup> A member of a Zulu religious sect who do not eat pork, drink alcohol and used indigenous medicinal plants, not accepting any European medicines (Player, 1972:45). Zulu colleagues and academics have commented that in his relationship with Player, and whilst alone in the wilderness together, he was prone to be loose in his interpretations of historical events and in relating tribal social traditions. His oral traditions recounted with Player were to be intermeshed within the narrative of wilderness. Early on this was also influenced by the oral histories and images accumulated by Will Foster. As the two, Player and Nthombela grew old together they gave a lot of attention to clarifying interpretations and ideas that came to be signified in the experiences they shared. I have not given attention to this in the study and caution readers, as I did colleagues and academics, of coming to superficial conclusions on a web of sustained social interaction as that of these two men and the developing notion of wilderness.

happened he tended to be heard as he had been in relationship with Player, a mystic with a depth of vision resonant in the wilderness and its links within the tribal wisdom of his Zulu ancestry.

Player also writes of Owen's<sup>22</sup> observations of mating behaviour:

*Onehorn<sup>23</sup> put the other bull to flight and chased it for fifty yards, squealing crossly. Onehorn then returned to the young cow making a low sobbing noise like an unfit man after a long hard run. He varied this with a noise not unlike a very young eland calf wanting to nurse. Onehorn walked up to her, resting his chin on her rump for a minute or so then they resumed grazing.*

*It was obvious that the cow was ready to accept him but the interfering bull was persistent.....(Player, 1972:184).*

The event which becomes the story told by the two men was to become a more factual account of field observations later to be shared with scientists and interpreted further. Later still a measure of scientific distance was to be added in research observations of mating events, and thus the narrative of interpretative observations were to become objective scientific knowledge.

Within these short extracts from / on the experiences of Steele, Player (Nthombela and Owen) one gets a sense of the interweaving of personal, shared and variously mediated stories<sup>24</sup> within an interplay of intense and involving struggles and a growing / responding scientific discourse with the distantiation necessary to give a greater reality-congruence.

These insights and an associated symbolic power, in the words of Elias which were used to introduce the previous chapter on dominion over the land, *do not come from nowhere*. Elias suggests that developing patterns of *we-images and we-ideals are always compacts of emotive*

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<sup>22</sup> Owen was a young ranger who like many of this period were accepted, often on the strength of the depth of practical knowledge acquired in the bush, to study science at university. He tragically took his own life, deeply affecting Player.

<sup>23</sup> Naming of rhino was only displaced by numbers as scientific techniques became more statistical. Descriptive names are still widely used in preference to codes and numbers in research today.

<sup>24</sup> Of note is the frequency of early university field trips and a rapidly expanding connectivity that brought the latest in ecological ideas into the reserves and into contestation with developing ideas developed through experience in the bush.

*fantasies and realistic images* (Mennell, 1992:139). This means that the people and their purposes, within the patterning of experiences and dispositions, came to interpret the world around them in an unfolding processual light of the shared beliefs, struggles and fears of the times. The emerging collective fantasies became fact within the developing processes and shifting inequality of the time.<sup>25</sup>

### iii Management problems and game capture

Within and around the problems of the other on the outside, species and habitat management issues were the main internal tensions. This occurred as severe resource management crises impelled the development of capture, monitoring and reserve management techniques and administrative frameworks. This happened through a sustained interplay of reserve management and scientific figurations amidst lengthening administrative chains and developing hierarchies which produced sustained contestation but within this, greater certainty, confidence and developing rational processes for natural resource management into the 1980's.

Steele opens an account by stating that:

*Stripped of its attendant complexities, the successful management of game reserves lies in controlling the number of animals so that they thrive and produce in a healthy state without detriment to their habitat (Steele, 1979:82).*

By the 1960's habitat management had become controlled burning and fire breaks with wildlife populations limited by shooting or by the hand capture of some of the more common and abundant species like impala. The pattern of burning and hunting was not unlike that of earlier

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<sup>25</sup> This was a social reality of the day that has come to be revealed as an injustice today. A recent equalising and restorative turn presents new struggles and challenges today.

times<sup>26</sup> but within changed socio-ecological processes. With few natural predators left<sup>27</sup> game populations increased steadily. This made the hunting of animals essential especially when periodic droughts accelerated habitat change and degradation. Steele reports:

*Game removal<sup>28</sup> is a contentious subject in most game conservation organisations and results in virulent arguments (Steele, 1979:79).*

He reports scenes reminiscent of the earlier Nagana slaughters and Zulu game drives but now amongst managers and scientists. These were conducted as a seemingly more civilised culling, a necessary feature of natural resource management. He writes:

*The snapping rifles and the reverberating 'vlop' as the bullet struck the wildebeest could be heard all around. Sometimes we would see a little puff of dust on their brindle hides as the bullet struck, at others times they would bellow, leap in the air and then crumple up, dark red blood bubbling from the wound and trickling out of still quivering nostrils (Steele, 1979:78).*

He continues to report that:

*the sight of piles of carcasses was distressing and the evil stench of rotting entrails filled one's nostrils until one could stand it no more (Steele, 1979:79) and that into the early 1960's there was no doubt that our organization was becoming weary of the seemingly endless slaughter (Steele, 1979:79).*

The solution to this axis of tension was to capture and the stresses impelled a move in this direction. Ironically, this was in opposition to research scientists who were still measuring and classifying what was killed and examining stomach contents. Management was thus in conflict with research and Steele reports that:

*The head of the research department at that time dismissed the whole project and predicted, somewhat foolishly, that capture would never replace shooting as a means of control. Jan Oelofse<sup>29</sup> heard all the comments and doubtless they*

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<sup>26</sup> Steele describes a visit to the remains of the early game pits with Jan Oelofse who was to be the first to perfect mass capture techniques. Steele reports that *Jan remarked how ironic it was that more than a hundred years later we should be contemplating basically the same operation in the identical area.* (Steele, 1979:104). Another irony is that within months Oelofse had developed and perfected a loading ramp and the use of hessian in a similar way to which the Zulu had used barriers of thorn bush.

<sup>27</sup> Earlier the policy had been to kill predators so as to allow populations to increase but then during the nagana the idea was essentially to shoot to control everything, barring the specially protected white rhino in danger of extinction.

<sup>28</sup> Culling, another soft term for killing, is also used and today this is done at night with silenced guns and spotlights where capture and relocation is not possible.

<sup>29</sup> He was later to perfect mass capture of game species.

*spurred him to greater efforts (Steele, 1979:93).*

It would seem that involvement in sustained and distasteful killing had brought about a detachment which sought and came to envisage an alternative. This was greeted with some scepticism and resistance by detached scientists without the intense involvement and a growing distaste for culling.

My concern is not with the development of a successful capture technology, but with the emergence of an axis of tension through involvement, and with a figuration of scientists in opposition. These processes were to shape people, ideas and developing orientation. Also of concern is how these socio-symbolic tensions and processes developed increasing dominion, knowledge and power in/over the reserves.

The processural image of tension and change adds to the earlier picture of involvement, fantasy and developing reality congruent ideas looking in on nature and things natural. This was also a dimension of tension within developing patterns of involved and detached social interaction as things changed and as animals and wilderness came to be securely understood, controlled by management technique and thus safe from external and internal threat.

The small part of this story that I propose to trace is that of white rhino capture. This illustrates a complex interplay of science and management, the successive establishment of more rational management frameworks and how the media picked up the story to take it into the homes and hearts of people in the cities. Steele and his horses are intimately involved, but as he states:

*If the name Ian Player seems to dominate the white rhino success story it is only because he was largely its guiding angel; when he eventually left the field operation for me to administer he concentrated all his efforts on finding new homes for those rhino that had to go (Steele, 1979:128).*

I draw examples from Player's account for the story of *The White Rhino Saga*. These provide some insight into part of the complex interplays of diverse social orientations, involved (strongly emotionally felt and tending to dogma) and detached (inclined to explain and

illuminate with an outside view) in the struggle towards natural resource management in reserves amidst a growing epistemological certainty.

#### iv Developing involvement and detachment<sup>30</sup> in rhino capture struggles

The importance of the issue of capture and the early directing power of Colonel Vincent of the central administration is evident in the care taken by Player in his treatment and noting of detail during the visit of Dr Harthoorn of Kenyan wildlife capture fame. An early halting formality and the scepticism of the rangers is evident in a comment on the initial lecture by Harthoorn. Player reports Steele commenting:

*'I never understood a word<sup>31</sup> from the moment I walked in until the end,'*  
(Player, 1972:58).

The quick wit of John Geddes Page<sup>32</sup> was also not appreciated and jargon was confusing, but the pressure of events maintained the level of interest until the strangers (scientist and rangers) became a team. Player had previously mentioned the problem of rhino numbers and declining habitat but on the first day out in the field darting rhino he comments on the pressures of others on the periphery stating:

*The only jarring note was the sight of distant squatter huts and the goats and cattle on the ridges of Mtunzini hill* (Player, 1972:61).

The practical orientations of the rangers and a developing team are immediately apparent once in

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<sup>30</sup> Involvement and detachment are sensitising concepts for examining a developing knowledge and certainty that can emerge where close emotional involvement with a balancing measure of detachment can enable people to get a more reality congruent grasp of things for better steering choices. Sustained processes such as this, as they developed in the rhino capture story that follows, shaped an accelerated spurt of knowing more and better for a double-edged struggle amongst greater insight and a more profound sense of developing risk. See Mennell, 1992:159 - 180.

<sup>31</sup> Management as 'outsiders' to scientists, but still powerful players in the management game, have developed this as a play in meetings. Scientists who believe that jargon is a problem impeding communication try to communicate simply but, as we will see, when the need is there no language is a barrier.

<sup>32</sup> Geddes-Page was a 'field-bred' non-scientist who was to be the Director of the Natal Parks Board in the 70's and 80's.

the field. After the first experience, a failure, Steele proposes to use 'horses and postmen<sup>33</sup>' for the follow-up after darting. When Player approached Dr Harthoorn with the plans he reports:

*'That's your side of the show,' he said, looking up suddenly from wiping a dart. His blue eyes were piercing.*

*This became the pattern. He respected our judgment on the practical side while we depended completely on his knowledge of the drugs. It was a good working partnership, based on mutual respect.*

*By the end of the first capture Dr Harthoorn was our hero and any passing scientist who dared to criticize him felt our wrath (Player, 1972:62).*

I have developed these early processural interaction, in some detail using Player's account and chronology<sup>34</sup>. It was to be this early 'foundation,' an intense interest in a successful resolution of the problem and the successive engagement of staff on the ground that was to be the corner stone of the success of the project<sup>35</sup>. Of note is the intensity of Player's attention to detail as the scientific investigation 'bumped and bungled' its way along exposing itself to scrutiny and scepticism as well as to creative innovations amongst a growing team.

The interactive process was kept alive when scientific observations like fly under the horn serving to explain scratching patterns observed in the field by rangers and game-guards, the latter being more silent partners with the possible exception of Maqubu working closely with Player. The rangers learned to raise a vein in the ear for an injection and to do artificial respiration by jumping up, and down on an animal, all of which must have served to develop a team and their shared social involvement on another level.

The balance of power relations was maintained with scientific explanations providing insight into behaviours noted by rangers, and the rangers explaining other observations to the scientist

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<sup>33</sup> People with radiotelephones on the high points (Player, 1979:62).

<sup>34</sup> The social processes are in stark contrast to the Nagana interactions of local people with scientists and, as will become apparent, so are the outcomes in terms of a developing epistemological certainty. This feature of the study is important to science, environmental education and social change today.

<sup>35</sup> This was also to affect Natal Parks Board policy that scientists must work with and as a support service to reserve management. Future problems were always to be ascribed to this basic tenant not being adhered to.

because of their field experience. Player states:

*I explained to Dr Harthoorn that once the bull got between the cow and the calf it would immediately chase the calf away (Player, 1972:75).*

Through intimate contact and an intensive interest, Player was soon able to read into social situations. He reports on an unsuccessful field drugging of a black rhino:

*'It's obvious the dosage was too low,' Dr Harthoorn said, looking up from his notebook.*

*The way he said it made me realize that he had kept the dosage low because he did not want to risk the death of another rhino (Player, 1972:84).*

Reflections on failures and how deaths could be avoided became the means by which possible solutions could be posed within the combined experiences, differing orientations and vantage points. On one occasion the teasing out of unfolding patterns of drugging was explained by Harthoorn as follows:

*I suspect that the larger mammals show some difference in the absorption rates, from different parts of the body. This is possibly due to skin thickness or extent of fascial layers,<sup>36</sup> (Player, 1972:85).*

Thus the involved fantasy experiences in the bush by the rangers became more differentiated and were mediated with a growing capacity for detachment and 'seeing in' with understanding. This is to be found in a reflexivity that deepened and broadened into the construction of the wilderness as a place of reflection, where the interplay of thoughts emotional with a mediating detachment, become a balancing experience and giving rise to a projective sense of possibilities and the future.<sup>37</sup>

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<sup>36</sup> Of note is Player's increasing familiarity with scientific terms. It was to become a theme in later debates on science and environmental education that communication problems were because of a failure to keep things simple. It was not to be known by scientist and specialist communicator alike that all were trapped in a circular discourse owing to earlier processural trends impelling environmental education into 'communicating to the other and a logic of the vantage point of science that communication failure and a lack of behaviour change can only be explained by complexity and jargon. Many still cannot see beyond this circular trap attributing their lack of understanding to poor communication. They are not inclined to ascribe the same to the other that they are communicating to and thus seek to evaluate it. This trap is still apparent in environmental education today.

<sup>37</sup> This is profoundly reflected throughout the text of Player's books and in the earlier extracts from Steele on patrol in the wilderness.

With success and the balanced interplay of involved and detached processural experiences there emerged shared images of a better future, a detached projection where:

*Immobilisation is going to change the entire picture of game conservation. Previously, if an animal put its nose out of the park there was only one thing to do; that was to shoot it. Now if an animal is valuable you can catch it and put it back. In the same way you can get animals out of pockets of contested land and take them to a game reserve (Player, 1972:88).*

And that is what they were to do. An new intimacy came with success and confidence in teamwork as is evident in this account:

*Norman, John Clark and Toni drove up.  
'The needle broke' I said.  
'I saw that but there was enough time for the drug to go in.' Answered Toni.  
He made notes in his book, then stood beside the Land Rover, drumming his fingers on the bonnet.  
Hooves clattered and Nick came galloping up a game-path. His khaki shirt was torn down the back and he was bleeding from a scratch on the forehead.  
'Its down!' he said.  
'What time?' Toni asked.  
'Two-thirty,' Nick replied.  
Toni scribbled figures on his leg.  
'Lets go,' he said.  
We jumped into the Land Rover and followed Nick through the trees. The rhino had only travelled about three quarters of a mile. We came upon it lying on the sand in a dry stream bed. Owen stood nearby his reins looped over his arm.  
'Hi Doc,' he said. 'She grazed for about four minutes then walked here and flopped down. Her breathing is O.K. and she went down very gently in a normal sleeping position. She's been on her brisket all the time.'  
I looked carefully at Toni and saw a flicker of pleasure in his eyes (Player, 1972:91).*

Note the intimate interplay amongst a team involved in what they are doing. Things become a lot more relaxed. This is followed by a light hearted banter, copious sexual innuendo in the names<sup>38</sup> and around the measurement and description of the animals, and in the innovation of 'walking control'<sup>39</sup> that was remarked upon as 'witchcraft' by Maqubu.<sup>40</sup>

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38 All animals came to be named and the name became an omen in many cases. This is something done by many peoples but particularly the Zulu who have the ability to pull together features of the place, events, mood or whatever into and around a name.

39 The discovery that it was possible to lead the drugged animal to the recovery vehicle and into a transportation crate.

40 Player, 1972:95.

Early successes brought with it a film. Through this rangers and scientists were destined, in the eyes of a proud public, to become mighty men saving rhino and wilderness.

#### v Reflections in continuing struggles, wilderness and risk

Dark days of disaster were to follow this. Things went wrong and a rhino died by falling over a krantz. At times like this, with the dispassionate voice of science, a 'significant other'<sup>41</sup> gave the rangers a way of levelling and looking at things within a wider sweep and with an element of detachment. Player reports of Harthoorn:

*He gave a clear resume of our captures to date, listing our successes and failures and outlining the direction we would have to follow when he left in a few days time (Player, 1972:126).*

The concise differentiation and distantiation apparent here, the sustained period of teamwork and the shared challenges enabled the group to go it alone. This happened amidst increasing media coverage with the saving of the rhino becoming a matter of office, home and school conversation, and regional / national pride. Player reports of his first unsupervised darting:

*We measured her as she lay there breathing noisily, mucous started trickling from her nostrils. This alarmed me but John had seen it with other rhino. I was far more alert today and noticed things I had not seen when we were with Toni (Player, 1972:130).*

Player reports later reflections:

*As I lay in bed that night looking out into the starlight with the wild sounds of leopard, nightjars, dikkops and hyenas calling, I thought how pleased Vaughan-Kirby, the first game conservator of Zululand, would have been. There were days when he wondered if the small herd of rhino would live to see another dawn. I thought of Captain Potter too, and his efforts to get a few rhino into the Hluhluwe Game Reserve in the 1930's (Player, 1972:131).*

Further reflections followed when he escaped to his beloved wilderness:

*I needed to taste the wilderness again and refresh my body and mind with the sights and sounds of the Umfolozi. Remarkable though the capture of the rhino*

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<sup>41</sup> This notion I derive from symbolic interactionism (Blumer, 1969; Charon, 1995). This perspective is consistent with the processual sociology of Elias.

*had been, it had also upset me to see these magnificent beasts humbled by a silver dart and a few c.c. of liquid, and close contact with the animal had robbed it of some of its wild beauty (Player, 1972:132).*

The struggle to climb the Eliasian 'spiral staircase' to greater insight and reflection and an interplay of the detachment of science and that of the wilderness is apparent if one casts an eye back and down over the discourse of processural trends within the white rhino story. In approaching this section I wanted to leave much of the complexity of these processes imbedded in the Player narrative, as my intention was to illustrate the developing interplay in context within the longer term picture of Elias. These events were within the processural trajectories of the time that sweep back to the Nagana period and the early paradox surrounding Zulu tribal orientations and the British colonial administration.

The white rhino rangers and scientists thus 'stood on the shoulders of'<sup>42</sup> what had gone before. The development process was a slow struggle which reshaped them in the direction of new insights. This emerged through an interplay of contexts of intense involvement and the detachment afforded by science and wilderness. Both of these social processes absorbed and challenged them, giving rise to an epistemological certainty that was to lead to a drive to educate.

## **vi Fascinating creations of interdependence and an educational turn**

A developing imperative to educate came amongst the ecstasies of nature's interdependence and pressing environmental change beyond the fences, where nature was being destroyed by the Other, out there. The epistemological certainty for this emerging imperative is firmly rooted in reserve management and in wilderness. Here conservation staff were to give voice to a powerful discourse as text and skills emerged to captivate visitors in new processes of

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<sup>42</sup> This incisive metaphor was frequently used by Elias when superficial reading of situations suggest the individual brought about change. This does not exclude individual labour but merely serves to balance a tendency towards the individual (homo clausus) seen out of processural context.

fascinating ecstasy and insight within wild nature. This was experienced not to reside in the people but in the place<sup>43</sup> which became an object of value for processes of experiential ecstasy, challenge and change in individual awareness which shaped a shared mobilizing imperative to save wilderness and to solve environmental problems.

There are, however, no places without people to create them and the wilderness was a physical place no doubt, but this did not exist in the way it is today without the people who crafted it in the reserves, not at a conscious level at the time, but as they were shaped in what they did and the successes they enjoyed. The processural shaping/crafting, as we have seen, started with the fantasies and delights of observing wildlife and grew to power with the underplaying balance of science providing the detachment of//for greater reality congruence. As the story was taken into the wilderness and further blended and deepened with indigenous knowledge and spiritual mystique, so both wildlife and wilderness became what they are today in the mind's eye of people.

For Player, the developing epistemological certainty was not achieved without a deep struggle to reconcile conflicting imperatives towards mysticism and an everyday objective congruence of science that contested much of this. None-the-less his wilderness discourse on the rhino is a powerful blend of keen observation, scientific understanding within a hint of romantic mysticism within the developing story.<sup>44</sup>

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<sup>43</sup> This is a key issue as when the wilderness became the object of value and insight the teaching learning was to be assumed to reside in the place the experience and the spiritual side of things. This inversion was to be an epistemological problem to teachers into the 1980's and it was to be some time before some clarity was constructed.

<sup>44</sup> This blend of practical, romantic scientist is not unusual, being shaped in open-ended ways within processes of struggle and reflection. Schama (1995:49 - 53) records a much earlier story of one Julius von Brincken in the shaping of the *Lithuanian arcady*. Later Schama (1995:134) discusses the Kiefer syndrome, a notion that could have significance for an open sensitising question, to examine developing mysticism and spiritualising processes in environmental education. As an open question this reads; is it possible *to take myth seriously on its own terms, and to respect its coherence and complexity, without becoming morally blinded by its poetic power?* This is a difficult question to understand, let alone ask, in a modernist condition of individual retreat into the present where ecstasy and mystery of earlier times develops with the power it had in early times when people and things were very different to how we see and reflect in/on them today.

*They walk at a leisurely pace and invariably stop at a dung heap to defecate or urinate. The rhino then enter the pan. If the water is deep they might go in backwards. Their next action is to stick their horns into the mud, often submerging the head up to the eyes in the water. After the horns are well covered with mud the rhino lie in the wallow and begin to roll from side to side and at times right on to their backs with all four legs sticking up in the air. The accompanying Stomoxys flies move off until a dry patch appears then try to buzz back and settle. Terrapins swim up to the rhino and pick off the thick bloated ticks near the anus and scrotum.*

*If the water is deep the wallowing about in the mud will take place on the edge, in this way enlarging the pan. After moving about in the mud for three to five minutes the rhino get up, move to another muddy section and repeat the performance. Then depending upon the temperature they either stay in the mud for a few hours or go to the shade again. When undisturbed, rhino go straight to a rubbing post after wallowing.*

*Rubbing stumps are usually a firmly-anchored boulder, a termite mound, or a tree stump - normally a hard wood like nthombothi (Spirostachys africanus) - or a tree. Many of the trees surrounding the wallows have been ring barked by the rubbing of animals over the years and polished as smooth as the best piece of household furniture (Player, 1972:134).*

The early fascination and fantasy of preservationist aesthetics had, with a rubbing of shoulders and a bumping of heads amongst rangers, game guards and scientists, and amidst the struggle to manage nature reserves, become a story which was to intermesh with the utopian longings of people in the cities to create a new playground, of wildlife and nature, the wilderness.

Within the rigours of this social process there developed a capacity to think back and around things and also to look forward with new confidence and insight into the problems in the world. It was thus that Player was able to report:

*I knew that in the wilderness area we had the resources that were vital to the wellbeing of the people of the world. These were like a fountain they would return to for nourishment; a spiritual recreation, something desperately needed in the twentieth century.*

*In 1957 I had taken boys in their matric year into what were going to be the wilderness areas of Zululand. Some of them wrote to say that the experience had changed their lives. For the first time they had realised that a wild area was just as important to [a] man<sup>45</sup> as to animals. Each of them had gained something different from the wilderness (Player, 1972:51, My brackets).*

It would be an error to read this simply as an individual disposition influencing a developing hegemony. The image in the text is merely a reflection of a much wider picture and developing processes within the shift in orientation to within nature reserve, struggling against and looking

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<sup>45</sup> Player, a man in the wilderness, significant other and exciting place locked in memorable story and adventurous experiences.

out on the changing threats without.

## vii **Eliasian interpretative insight into the developing story**

Elias illustrates how the idea of nature as 'a self-regulatory nexus of events,'<sup>46</sup> the management of which was being mastered by the men of the nature reserves, we tend to take for granted today. This perspective did, however, emerge through a sustained struggle which developed a capacity for detachment and a greater reality congruence to enhance the power-chances of humans who had increased command of and with science. He adds that the effort of detachment also implies:

*a greater capacity for the human capacity for observing nature, for exploring its connections and regularities for their own sake. By distancing themselves in that manner from nature, and, at the same time, by controlling and mastering natural events better and better, human beings gained for them new sources of enjoyment. The heightened detachment brought within reach of humans new secondary forms of involvement (Elias, 1987:xliv).*

He goes on to describe how the fascination and delight of this involvement, besides providing a spiritual ecstasy, also gave rise to an aesthetic function, 'an experience of beauty,' a secondary involvement<sup>47</sup>. The Eliasian description of the turn in art and aesthetics resonates with what happened in the nature reserves, a turn that was to be a foundational process of early environmental education as a spiritual experience awakening a new awareness in nature. The power and impact of this on and amongst people whose utopian fantasies and emotional spirits, amidst escalating environmental risk and in the proximity of wild nature, came to underpin developing theories of environmental education<sup>48</sup>.

Elias also adds that compared with the idealism in the forms of nature within the Renaissance:

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<sup>46</sup> Elias, 1987a:xliv.

<sup>47</sup> Elias, 1987a:xiv.

<sup>48</sup> See Opie, 1992 'Rousing the Sleeper' as example of these processes within developing ideas in environmental education.

*The developmental road of scientific knowledge shows a similar sequence. The realism of scientific discovery, which in the sphere of art was modified by a quest for balance and harmony, was tempered in science by the stress on the inherent regularity and orderliness of nature (Elias, 1987:xiv).*

I have quoted fairly extensively from Elias here, as he captures the power of this developing turn, where the objects of aesthetic fascination can come to speak for themselves<sup>49</sup> and the 'painter' of images (ranger) using 'a show and tell' method during the 'teachable moment' on trail in close proximity to wildlife to provided interpretative cues that were picked up within the ecstasies experienced by the audience / participants. It was thus that the participants in a wilderness posture of detachment developed strong individual experiences of wonder. There was a distancing of themselves and a secondary sense of involvement in the moment. They also had a new technology, the camera, which captured this in pictures, images of nature's balance and harmony<sup>50</sup> to be taken home to captivate others in widening ecstasies of nature's harmonies. In the movies beauty and ecstasies merged within flowing blends of music and moving image, all increasingly larger than life.

Involvement and emotional response during 'solitaire,' a time alone for prayerful and poetic reflection<sup>51</sup> was often the galvanising experience for an emotional surge of images and feelings where the imagination dances to the music of nature on a quest for change. Shared conviction of music and dance are ratified and differentiated within the mediating influence of trail leader and other participants to be held within a strong spirit of shared conviction shaping, status and

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<sup>49</sup> The idea of the wilderness speaking for itself was to be translated into an assumption that the experience in nature did the teaching. This was to become an axis of tension when environmental education interacted with prevailing disposition within formal education bureaucracies.

<sup>50</sup> Botkin (1992) operating at a more recent level of integration, criticises the early notions of balance and harmony in nature against challenging insight into its richness and complexity. The aesthetics of nature in eco-tourism is often seen as somewhat elitist and 'white' that is of little relevance to the rural poor. Within this process is, however, a significant turn in our steps towards symbolic forms that provide an enhanced reality congruence in the human quest for more sustainable living.

<sup>51</sup> Player told me that this idea developed from early religious experiences at St John's College during the Easter Vigil observed at the school at the time. It is of note that Hopkins and Putnam (1993:58) report a similar development in British outdoor education during the same period when solo tasks and solitary reflection times developed a key processes in adventure and environment experience programmes.

identity as leaders of change and carriers of messages to the others outside and unaware. Also, the developing images of the movies carried these ecstasies to new heights with their power to captivate and to involve others in nature experience and powerful images of developing environmental risk<sup>52</sup>.

The intensity of an involved conviction and the ecstasy of personal sensory experience and heightened spirituality was thus set against the developing environmental destruction all around giving impetus to a movement to educate through experience in nature to reshape awareness. A developing diverse and wide-ranging movement had the power of the greater reality congruence of an emerging ecological science of interdependence, through an initial epistemological certainty accompanying this. These models of process were ratified within the reactions of early visitors in wild nature and a growing sense of being able to engineer others and events to foster change to solve environmental problems.

#### **viii Encounters with visitors sharing ecstasies and imperatives**

Increasing numbers of city dwellers came to visit the wildlife sanctuaries. This brought with it tensions, as tourists tended to despoil the reserve with litter and were often, in their excitement, noisy and insensitive to wildlife, tormenting animals to get a reaction out of them as they began to hunt with cameras. Along with this the mass media began to romance the frontier Eden of struggle where 'mighty men' were saving wildlife and wilderness. New waves of visitors now expected to see the teeming hordes of animals in the movies creating new comments such as 'what have you done with all the animals,' as reported by Nick Steele. They came for delight and in search of utopian amusement in their cars and with these dreams realised through reactions to pictures and stories back home they returned in increasing numbers. They were

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<sup>52</sup> For an example of poetry and pictures see Richards and Shuter (1977) *Reflections on Wilderness*. This was compiled for sale to raise funds for the first environmental education field centre in the region, The Umgeni Valley Project. The developing processes of moving images are to be found in the close interplay with more and more people visiting reserves and the film unit of the Natal Parks Board playing to bigger and bigger audiences. (NPB Annual Reports 1960's -1980's)

mostly rich and from the city and they moved in affluent circles of people who had the cars and could create the leisure to indulge themselves in their fancies. The parks got a status associated with the rich and were a political interest and a source of regional pride and prestige to the visitors from the cities.

Rangers in uniform got the status they deserved and within their stories that delighted visitors were the sweeping utopian insights and impelling reality congruence that enriched a visit. The sparks igniting these feelings were close encounters and the sharing of these intimate moments with rangers who told stories in/of the wilderness. The world of wildlife was to appear in a new, aesthetic and poetic spirituality amongst new rangers, tourists and teachers as story and fact rubbed shoulders with their experience with people like Player and Steele, and their own fantasy observations seeking the utopia of the wilderness. This transformation of long-term scientific / experiential interpretative insight to short-term involved fascination and the poetic is evident in this text on the rhino:

*Preposterous, prehistoric hulk,  
At ease in the ooze;  
With the sun cake-baking the mud on his flanks  
Like pieces of thick, brown cardboard,  
Curling*

*Whirling insects torment  
The close-closed eyes:  
And flaring, gently quivering nostrils  
Indicate a state  
Of awareness.*

*A sudden movement, and he is up;  
Swinging around to face the danger  
Which he cannot see.  
Head raised, he stares,  
Myopically,  
Into the vague distance;  
He snorts,  
And runs into the bank.*

*Aggression etching in every line,  
He turns once more  
To stare and blow.  
Then he is off,  
Running with shock-absorbered smoothness  
Through the thorn trees:*

*Tail, a delicate ring  
Curled aloft:  
And slowly the sound of his passage  
Fades and dies (Richards and Shuter, 1977).*

For the rangers the shared and personal experiences and developing knowledge became a symbolic capital for interpreting the wilderness to trail visitors. They, in turn, were to derive a resonating insight and pleasure in encounters with the interdependent ways of the wild. It was thus that processes of socio-ecological experience in/of wilderness shaped the wild areas of the reserve as a place of insight, pleasure and fascination for scientist, game ranger, city visitor and indigenous African alike. The latter was, however, one of the others who did not get to participate much, despite the efforts of many dedicated rangers and a growing wilderness movement started by Player. The wilderness idea had emerged in the United States but it was socially reconstructed within the processural events of Africa into an object of spiritual refreshment as it has taken a turn of involvement and psychological respite from the rigours of city life, in much the same way as it was a respite to Player many years earlier, and still is today.

Elias shows that it is in ways such as this that people are shaped to signify and carry forward new ideas within changing processes of their daily social life. He states that:

*It is at small functional centres that the foresight, more complex self-discipline, more stable superego formation enforced by growing interdependence, first becomes noticeable (Elias, 1994 [1939]:257).*

That was to be the case here as enrichment in the wilderness came to underpin all kinds of education all of a sudden within an expanding conservation administration into the 1980's.

## **ix Education within/as changing processes of social control**

The emergence of early nature experience education was both a small processural shift and a long process of struggle at playing new games, and at giving these names. Environmental

education processes had no specific starting point in the region and yet both started and emerged within open-ended processes and in differing ways in different places, particularly nature reserves. These processes continue today in more diverse settings<sup>53</sup>.

A sense of developing processes around early environmental education in the region is most apparent in Zululand nature reserves, particularly the Umfolozi wilderness. Within this area, reaching up from it into the Natal Parks Board and reaching out from it into the Umgeni Valley Project and wider afield. Within this widening intermeshing, examined in Part Four of this study, one finds developing perspectives and imperatives which came to shape and to underpin early environmental education in pervasive ways. None of these processes were static and all are characterised by a responsive diversity of ideas that have been malleable within a developing trajectory to foster change towards a more sustainable environment.

In the Umfolozi there was a sustained struggle to preserve wildlife in the game reserve. During these processes wild animals came to be seen with a new and fascinating interdependence in natural ecosystems.<sup>54</sup> With this came more differentiated and reality-congruence perspectives enabling wild nature to be sustainably managed within the game park by interacting game rangers and scientists in a developing conservation organization.<sup>55</sup> The developing processes within the surrounding game park, amongst the people on the reserve and within individuals themselves gave rise to green islands of natural bounty and scenic beauty which came to be experienced as a utopian wilderness of wildlife amidst an increasingly degrading landscape of

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<sup>53</sup> The uncertainty of this open-ended process image of the emergence of environmental education in numerous, increasingly diverse contexts and forms within developing contexts of risk, can be profoundly unsettling leaving one uncertain as to what it is and how to do it. This problem was solved by the mediating hand of philosophy and environmental education emerged as defined object with precise origins and as rational processes for educating others to solve the problems of the present. This developing process is explored in chapter nine.

<sup>54</sup> The shift was not exclusive to nature reserves and it did not develop in the same way in each case. This is apparent in diverse notions of environmental education which were contested into the 1990's. The developing processes were also dependent on earlier intergenerational processes that reach back as far the realism turn in art in the Renaissance and the emergence of the physical and biological sciences, particularly the developing ideas of evolution and ecology.

<sup>55</sup> Later the sustainability of island management was to come into question but this coincided with developing strategies for sustainable environmental management in the region.

human activity.

The reserves and the animals were at risk from others, out there and around the game park where the environment was visibly degrading at an alarming rate against the thriving abundance of the reserve. From within the island sanctuary where game rangers fought a protracted war against poaching, they looked out at people as a threat. At the same time they looked in and around at a fascinating interdependence of wild animals and wilderness at risk.

The sustained struggle and changing processes on the land, amongst people and within people themselves, began to involve game rangers in a new game of education. As more and more visitors from cities came to share the pleasures, insights and concerns of the parks, there developed a compulsive fascination that brought them back as visitors, developing eco-tourism as a leisure activity. Within this process many game rangers became convincing and committed educators<sup>56</sup>, developing, naming, shaping and getting funding for it. In this way, diverse environmental education processes emerged in various ways within expanding wildlife and environmental management bureaucracies (Chapter 9).

In simple terms, looking in on, and successfully managing, a natural world of animals in ecosystems went hand in hand with looking out at a world at risk and the development of education to manage people in very much the same way. The developing story was an open-ended process where wildlife management and an imperative to educate emerged in conservation bureaucracies and elsewhere, amidst processural responses in emergent risk still apparent today.

With a broader view that this developing story affords, it is little surprise that conservation and

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<sup>56</sup> Of note here is that few wanted to do it as many were in conservation because they wanted to distance themselves from other humans. Some were decidedly antisocial, resenting the intrusion of people who they would have seen as vermin were it not that they had come to see scavengers as a vital part of their wilderness world. All that was left to many was indifference and avoidance of people but a passionate belief that education was needed to change the world.

environmental education developed in somewhat differing ways within differing settings. Reserves, people, risk and social process are open-ended and yet there may still be broad developing processes of social change within which they sit together. Conservation and environmental education is one of these developing patterns this century. The two are now emerging within a more unitary process of natural resource management for biodiversity and sustainable living. The cornerstone of this developing perspective within an advancing global setting is environment and development education<sup>57</sup>.

The early settings of risk that became the focus for various forms of this broad process of education for social change were the game and nature reserves. Here 'others' were created (Chapter 5) and the urge to educate developed with more reality congruent knowledge and an administrative perspective to control others amidst developing risk (Chapter 6). Diverse educational processes for social regulation thus came to be directed at farmers, farms and neighbouring communities around reserves, civic administrative structures, youth and community service clubs and, of course, schools and the school curriculum.

These settings have all become terrains of research and contestation within a developing political sociology of education for environmental awareness, values / attitude and behaviour change to solve environmental problems in developing institutional settings in eastern southern Africa (Chapters 7 & 8). Processes of clarifying contestation emerged into the 1990's after the ideas had become loosely known as environmental education; education in and about nature for the environment into the 1980's.

Developing processes continue today as a somewhat blind and circular struggle. This is little different to what happened in Zululand nature reserves into the 1960's and a similar picture is apparent in the flurry of shared optimism that came within a widening interest in environmental education into the 1980's. Within the complexity of intermeshing social processes and the

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<sup>57</sup> UN earth summit (Wynberg, 1993).

signifying of educational experiences in wild nature as the solution to developing environmental problems, at the risk of simplification, I sought to pull together an emerging picture of key processes in the shaping of environmental education. In alluding to these here, my purpose is to develop open process images within the sweep of the close social figuration of the Nguni through the nagana struggles and into the reserves as people in/and surroundings changed.

Within this processual sweep, developing wildlife conservation institutions, intermeshed struggles shaping the Other and a developing epistemological certainty, brought rapid change revealing escalating risk to nature from people. Here humans, for whom an earlier blind acceptance of fate had been displaced by an uncertainty of contingency and escalating risk, experienced an ecstasy of fascinating insight into nature's interdependence within wilderness encounters. As a civilising process of social change, education offered the prospect of salvation from contingency and risk to sustainable living. Stated simply, when these processes emerged in diverse settings and in differing ways, all sorts of education emerged to make others aware and to solve environmental problems.

**PART FOUR**  
ALL SORTS  
OF EDUCATION



## PART FOUR

### ALL SORTS OF EDUCATION

*Following on from early social processes (Part 2) and the emergence of nature experience for making the Other aware (Part 3), all sorts of education developed as specialist functions within conservation institutions. A Brief glance back at the trajectory of developing patterns in the regulation of social life may help clarify how shifting processes of social orientation and control shaped diverse institutional notions of education for creating awareness and for changing the behaviour of others.*

*In the game reserves, involvement in nature's fascinating interdependence and an enhancing detachment of science, enabled a more reality congruent sense of interdependence amongst plants and animals within natural processes. Developing images within these processes of enhanced awareness, enabled humans to catch sight of the sustained spurt of change within which people had come to benefit from increased exploitative control over surroundings. Lagging behind accelerating resource exploitation were balancing patterns of social and self control to resolve developing environmental problems. As conservationists began to see nature and the Other at risk, education seeking to foster environmental awareness to enabling others to exercise the greater self and social control, so as to sustain themselves in their world, began to emerge. Although not seen as such at the time, developing education activities were a small turn within patterns of social control in response to enhanced insight into mounting risk within a slow levelling of power gradients into the mid twentieth century.*

*From early on, long-term social processes of animistic involvement, myth and mysticism within early tribal functional units, shaped people on the land, interdependent with each other and with the self control to exist together. Developing axes of tension brought shift within which early peoples and their surroundings continued changing in open-ended ways, but within longer chains of regional interdependence in the Zulu Kingdom, and later colonial more global intermeshing. Slowly and only fairly recently, amidst lengthy reshaping struggles, game parks and conservation bureaucracies emerged to manage wild nature. These agencies soon sought to regulate social life in new ways as escalating risk shaped an imperative to change the awareness of others so as to solve environmental problems. These processes added education functions within conservation science institutions seeking to control conservation*

*lands and to protect and manage residual pockets of natural wilderness and the declining wildlife in the region.*

*Early glimpses of regulatory 'education' as an administrative response are apparent in very early patterns of spiritual constraint, and in how closely intermeshed tribal processes, including the Zulu kings' impis, enabled and maintained a monopoly of declining pockets of large game. Frontier colonial days of few constraints were followed by colonial conservation legislation, and a growing preservationist call for nature reserves and education to save wildlife throughout the sustained Nagana struggle. Into the 1940's and 50's the early reserve based 'education' was centred on the legislation and policing of poachers and hunters, as well as the management and control of early tourists. Within these struggles 'education' was largely characterised by social constraints within conservation rules and regulations until, slowly, behind and around this 'legislative management' and within reserves, there developed more benign approaches of 'awareness creating experiences in wild nature' and through modes of institutional communication to 'get the conservation message across' to the Other. This, the continuing institutional story of environmental education in eastern southern Africa, is explored in the next two chapters.*

*Chapter 7 examines diverse approaches to education and how these were shaped within the open-ended twists and turns of the developing conservation science institution.*

*Chapter 8 examines a longer developing thrust into an environmental education field centre, an early teacher education programme and a school curriculum.*

*A key feature explored in both of these developing stories is how the tensions, stresses and uncertainty within the 'hegemonical fever' accompanying continuing meaning making and educational struggles, gave rise to various spiritualising turns. These turns and a social location on the periphery of existing education social figurations had powerful shaping influences within the early developing story. What happened in the wilderness and in an early field-centre and its widening interactions, is a key developing thread. It takes us into the 1980's and the formation of a specialist environmental education social figuration, a turn that opened up the terrain of a widening field of environmental education to further statutory and academic shaping processes (Part Five).*

**Wilderness, movie, exhibition, trail, farmer and school education\***



\* 1. Trails camp in the Umfolozi Wilderness. 2. Joan Kuiper giving a film show at Queen Elizabeth Park. 3. An exhibit on the Zululand game reserves at an agricultural show. 4. Ranger Andrew Anderson on trail with visitors. 5. Zone Officer with Game Guard, farmer and Conservancy Guard. 6. School group on trail with Ranger-Naturalist Paul Miles.

## CHAPTER SEVEN

### Education in a developing conservation institution

*The formation of social groups based on expertise represents an attempt to exclude the lay audience and other "expert" groups from influence and competition; it is a bid for autonomy and independence which, if successful, leads to increased mutual dependence among "professionals" and increased standardization of craft skills and techniques (Elias, 1982:xi).*

Social processes that defined the Other on the outside and in need of greater awareness (Chapter 5) were shaped hand-in-hand with the knowledge and power for a developing institutional imperative of widening social control to resolve the problem of environmental degradation(Chapter 6). These intermeshed processes were key trajectories in the shaping of education in wild nature and for conservation into the 1960's, 70's. They sought to make others aware through 'interpretation' experiences in wild nature and to change their behaviour through the 'extension' of scientific information and influence beyond the reserves. Into the 1980's these experiential and outreach processes developed; a loose cluster of activities as reshaping processes of social control, increasingly specialised education functions within nature conservation and a widening array of state institutions.

These education functions can be seen to have emerged within shifting social processes from struggles within which humans came to see, with greater reality congruence, the pattern that connects wildlife in nature ecosystems and people in modern society degrading these. This developing story is often beyond our view today, as ecology is taken for granted as a body of objective facts. Within this condition many have assumed that an ecological sense of the pattern that connects is a human universal to be restored to a modern society that has become detached from, and indifferent to, nature.

## **i Ecological interdependence as a break from earlier times**

Nature as an aesthetic compulsion and the refining sense of natural processes that came with ecology were not apparent in earlier times<sup>1</sup>, certainly not with the same reality congruence and differentiated sense of interdependence. Developing social processes within struggles in wildlife reserves came with, and enabled a detachment through which people were able to look in on nature from the outside, and also to look back on themselves within nature, increasingly to see themselves in tenuous surroundings amidst escalating risk through environmental degradation.

I must stress that it is not that earlier peoples were not capable of this detachment and reflexivity, but that within the close social involvement of the day these processes simply did not happen in earlier times. Developing processes and patterns of constraint within physical and social surroundings, as well as within the people themselves and their drive patterns and narrow steering choices, made them and their times very different.

From these earlier times, diverse social processes have developed in an open-ended way shaping where we are, what we have and what we see today. With humanity as a whole being immersed in diverse, open-ended processural stories, we do not all occupy the same immediate physical environment or share the same developing intergenerational struggles, so we do not see ourselves, others and surroundings in the same way. As our ways of seeing things have changed, within developing processes and patterns of risk, so we are starting to get a sense that we share the same environment and that we and others suffer and may not be able to sustain ourselves in a world of escalating risk. We have recently come to seek education for shaping a more just and sustainable environment but do not yet have a clear picture of how this is

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<sup>1</sup> This fact is very difficult for those experiencing an intense involvement in the risks of the times which have constructed intensely absorbing utopian fantasies of earlier tribal civilisations and indigenous communities. That these myths underpinned an apartheid separation of peoples and were behind an exploitative rhetoric of globalizing social control is an even more profound shock. Some features of these developing processes are examined in chapter eight but a detailed review of this circular process must fall outside the scope of this study.

developing amidst escalating risk in our times, an interpretative purpose of this study.

## **ii Increasing insight within developing patterns of escalating risk**

Developing social processes are not often seen to be associated with increasing environmental risks that press in on us. Escalating risks were visibly present around the nature reserves<sup>2</sup>, particularly into the 1960's with the implementation of a homeland policy in the southern African apartheid state. Before we knew it, more and more environmental problems were suddenly upon us in a modern industrial world and with the population explosion and historical patterns of socio-ecological exploitation in a third world developing country<sup>3</sup>.

Environmental problems emerged and escalated at an alarming rate. Some of them physically have and are, but many risks like poverty and starvation have always been part of the human condition, within developing historical social process. It is, however, only fairly recently that humans are seeing them more clearly, beginning to worry about them with others and developing an emergent moral imperative to do more about them and their socio-ecological implications.

For this study a processual chronology of developing environmental problems has not been constructed because my central concern is not how environmental degradation historically emerged through developing patterns of socio-ecological interaction and political activity. There are already numerous and contested pictures of our environmental history and these will hopefully get better as greater detachment is possible. The important issue for understanding

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<sup>2</sup> The visual impression of wild nature without human land use practices (fire, cattle and hunting) was startling to say the least. This made profound the sense of degradation of land under human hand, something that had not readily been apparent before on a landscape of tribal commons and frontier without clearly demarcated areas for people and wild nature. The imperative was simply to keep the wilds and wildlife away, 'out-there' as wilderness to be avoided.

<sup>3</sup> The stresses and risks amidst poverty and resourcelessness have gone hand-in-hand with emancipatory movements, changing patterns of conscience formation and shaping a developing concern for the Other (Elias, 1995).

environmental education is how and which environmental problems were seen within and around developing contexts and emergent processes of environmental education in the region. This will hopefully cast some light on the shaping struggles and contestations that were to follow into the 1990's (Part Five).

### **iii Education within reserves, widening intermeshing and risk.**

The emergent wildlife conservation imperatives in response to species and habitat change are fairly obvious to us today<sup>4</sup>. With the securing of administrative dominion over nature reserves the early problem of preservation was soon broadened to issues of ecosystem management and wider threats like soil erosion, pollution and population growth. Added to this, within widening regional and international patterns of connectivity, more refined images of global processes of interdependence emerged. These were articulated by people who began interacting at world environment conferences. Ironically they were also people who tended to visit nature reserves and thus these settings became places of interchange and reflection about the broader and developing picture of environmental risk and issues.

Against this processual sketch of emergent images of increasing risk, within developing social processes of interdependence, my concern in this chapter is to examine emergent functional differentiation and orientation in environmental education in the developing institutional figuration. These processes gave rise to diverse perspectives, on and methods of, environmental education on reserves, and then later within emergent figurations of specialists in the developing conservation institution. In this way early reserve interests in saving animals and wild places broadened to wider institutional concerns of conservation management and educating people to solve environmental problems.

Simply stated, an open-ended web of developing processes shaped the emergent arenas and

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<sup>4</sup> I must again stress that issues were by no means as clear cut for indigenous and early colonial social figuration for whom to hunt was to conserve (Chapter 4).

notions of environmental education and how these developed within the region in a fairly homogenous way into the 1980's.

Along with these processes, a developing detachment of science and in the city, and longer chains of social connectivity within emergent administrations, brought processural change and people who saw more of, and sought to regulate through education, the patterns that connect people in the environment. In nature reserves, education imperatives emerged concurrently amongst an ecstatic fascination in nature and mounting environmental risk as visiting people developing a changed awareness of interdependence within wild nature (Chapter 6).

The game reserves were not only places of ecstasy, fascination and struggle to manage wildlife, they were developing centres of tourism and awareness, sites that were being sought out by teachers, and places visited by international scientists with a concern about conservation and environment. On the reserve, day-to-day developing intimate understanding of animals and increasing management control over wild nature was set against degrading environments, around and beyond the green islands of wildlife conservation.

Developing issues, and ideas on what could be done about them, were discussed at meetings, entered wider social exchanges and were carried to interactions with scientists and head office administrators in further management meetings. Through these interchanges within administrative hierarchies were shaped objective formulations of the problems and what was to be done to solve them. Within a slow shift in power from reserves management to head office and rational scientific management plans, developing notions of education took particular objective and systematising directions.

The bureaucratization of the environment at risk and notions of what should be done about it were a key shaping influence on the institutional notions of environmental education that developed. Noted awareness transformations amongst visitors on nature trails in the wilderness (Chapter 6) and a concurrent development and popularity of wildlife movies were key

processes shaping developing ecstasies in/of nature and notions of environmental education.

#### iv Ecstasies amongst wilderness and movie magic

In the reserves into the 1960's, film shows and wilderness trails came to be regular interacting processes in the experience of wild nature. The interplay of real life encounters on trail in wild nature as seen in Chapter 6 and the fascination of hyper-real movie magic was a key developing process which enhanced fascination, opening up hitherto unknown images of interdependence. It is difficult for us to imagine this, since moving images of reality have become everyday processes that we take for granted.

Following the introduction of wildlife film shows in the main urban centres and at Queen Elizabeth Park in the early 1960's, the 1966-67 annual report on educational activities states:

*a year's total of 219 shows given to a total of 23,856 persons. 36 of the shows were exclusively for schools (NPB Annual Report, 1966/67:5).*

By 1967/68 this educational work fell under the title 'Public Relations'<sup>5</sup> continuing in this vein until 1972/73 when:

*240 shows were given....31 454 viewers... Altogether 90 school shows were given, to audiences totalling 18 649 (NPB Annual Report, 1972/73:4).*

By 1975/76 television led to a decrease in attendance at regular public shows<sup>6</sup> and the films were mainly shown to schools and in the game parks well into the mid 1980's with increasing audiences of 60 - 80 000 per year<sup>7</sup>. Television, as moving image interaction with wild nature in the home, brought still greater aesthetic intimacy, detachment and powerful interpretative narrative. These processes continue today and along with this one finds an increasing demand

<sup>5</sup> NPB Annual Report, 1966/67:4.

<sup>6</sup> NPB Annual Report, 1975/76:22.

<sup>7</sup> NPB annual report, 1982: 83

for experience of the real thing.<sup>8</sup>

## v **Engineering and spiritual solidarity to secure reserves**

Early experiential education in reserves slowly developed hand-in-hand with increasing knowledge, power and appeal as city visitors to parks found their lives changed by fascinating images, refreshing feelings, thoughts and insights they developed in the wilderness and in the movies. In this process 'natural wilderness' became counterpoised against 'human ignorance' on the outside destroying the natural environment.. The theme of people as a threat and destroyers of wild nature was already well established in the mass media that had come to exercise significant influence over the general public.

The affluent public, the media, developing power as an outsider receptiveness to nature and nature threats, was not lost to conservation administrators in reserves. They were under increasing pressure both 'outside and inside, and up the ladder in head office' as we have seen in chapter 6. Within these processes they came to see that they could to some extent influence and engineer events. With this rising sense of being able to influence and control people and the flow of events came increasing calls for education and the extension of ideas from the reserves into the outside world to make people aware of the environment and its problems.

The processural interaction with threats from the outside brought with them a developing capacity of foresight to images of the future of reserves. With this came a passionate conviction to engineer a future that secured the protection of the reserves. This is evident in Steele suggesting that the rhino capture might jeopardize the retention of the Umfolozi as a conservation area<sup>9</sup>, the placing of fence posts to force the establishment of boundaries on

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<sup>8</sup> Of note here is a tendency for the real thing to be somewhat of a shock and disappointment in some cases, whereas in others moving images have come to be scorned against a more compelling and spiritually satisfying involvement in wilderness surroundings.

<sup>9</sup> Player, 1972:52.

contested land<sup>10</sup>, the use of the media to arouse public support<sup>11</sup> and possibly the introduction of lion to secure the fencing of the park<sup>12</sup>. All of these suggest an emergent foresight and an engineering hand behind events; increasingly the hand of humans in the events.

Within these processes, some saw themselves and spoke with others as working, hand-in-hand with a personal saviour and/or as a moral imperative, in a shared spiritual conviction for nature and its conservation. This developing involvement and strong feelings shaped passionate spiritual convictions. Here, the hegemonical fever and emotional heat within emergent processes of risk pressed in on people involved in these activities, shaping a religious dogma around how they came to see and to feel things.

These processes are clearly not the mystical treadmill of earlier societies where people also responded within close spiritual controls in the stream of events. Here humans are looking in on others and events and are also looking ahead and in on their 'lookings and doings,' past and present, increasingly to imagine and to engineer the future. In this way they are able to exercise greater self-control and to control processes that might give rise to the ends that they wished. Within the developing process one finds, as in the earlier story of Player in the Umfolozi, a growing educational imperative to convince others to control themselves and each other.

Elias noted that these processes are fairly recent and are enabling people to have a small steering influence within processural events, but are also changing people in significant ways. The validity of this sociological insight is apparent in how early engineering processes backfired on the engineering hands of those wishing to intervene to change others. This is particularly evident within the failures and struggles in the wider field of rural and community 'development.' Here the early top-down engineering of people within the apartheid state and more benevolent efforts to improve the conditions of the underdeveloped poor shifted, within an apparent receding of engineering intent, into conservation and environmental education

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<sup>10</sup> Steele, 1979:195.

<sup>11</sup> Steele, 1979:181.

<sup>12</sup> Steele, 1979:176 - 192.

process whereby people were facilitated to develop and to change themselves. These processes emerged later in the developing story and are examined in Part Five of the study.

The development of an engineering intent within institutional 'education' strategy is a significant processual shift afforded by the detached vantage point of the institutional administration, and contributing to an engineering intent behind early forms of environmental education<sup>13</sup>. Developing postures of detachment developed hand in hand with involving spiritual turns shaping the ways of seeing and doing environmental education emerging within figurations of functional specialists in conservation institutions.

## vi Specialist figurations within widening conservation functions

The environmental education emergent within these developing processes was shaped amidst increasingly differentiated functions and an expanding institutional connectivity which was subject to increasing, central bureaucratic control. The institutional processes which developed to educate others in / about / for wild nature for example, emerged within an extended developing process and as people on the reserves moved up in a developing conservation organization. Within this process the likes of Player and Steele, amongst many others, began to exerted greater influence, particularly with developing contact amongst international imperatives to conserve and educate in/about and for nature to solve developing environmental problems.

Head office and reserve teams often worked to engineer events to secure the reserves from outside threats, as seen in chapter 6. The developing talk about, and the engineering of, education processes to reduce threats to the reserves became a key process shaping the emergent narratives of environmental education. In simple terms, conservationists came to seek a reduction in the human threat to the environment and wildlife through education. This

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<sup>13</sup> The engineering of public support is apparent in a set of 11 early morning talks developed for reserve visitors by the Interpretative Services in the 1980's. For example, *The Natal Parks Board, Managing a game reserve, Public recreation, Animal marketing programme, Natal Parks Board research*, all of which educate about the institution and were accompanied by walks into the 'wilderness' where rangers talked of the nature that the city people had come to look in on so as to be fascinated and entertained. (NPB, 1980:Early morning talks, 1-7)

was done to further their immediate ends and to develop a new awareness which would change the day to day steering choices of others.

**Wilderness trails and interpretative booklets/film shows** were early education activities on reserves that had immense popular appeal, further advancing a certainty that education could create greater awareness. An increasing imperative and confidence in education led to specialist **interpretative public relations** and **farm game extension functions** reaching out from reserves and from a central head office of the developing conservation organization.

The clarifying vision of education as a primary function within conservation was, however, to become an axis of tension with head office administrators and on the reserves, where most conservation bureaucrats were intent on conserving wildlife in reserves and not on educating people. This is apparent in a developing pattern of specialist functions of education that remained as separate and secondary concerns within the conservation organization.

The 'hiding' of developing manipulative intent and education was in part owing to conservation being seen as the primary scientific function and that the state would not fund an education function except under another name. To get around this into the 1990's environmental awareness was defined as the specialist educational function of the conservation agency<sup>14</sup>, distinct from that of the national education department.

The early success of awareness education on reserves brought with it a conflict of expanding functions amongst reserve rangers. Many had wanted to be away from people and amongst wildlife. A **specialist Interpretation Division** responsible for public relations, displays

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<sup>14</sup> That one can't function 'to environmental aware people' was as clear to senior administrators as the fact that central government would not give them funding for education.

and information<sup>15</sup> emerged to undertake communications work with visitors to the reserves. **Wilderness** trails and developing **scientific extension** functions were 'defined out' of this as further specialist areas.

The development of specialist interpretation services led to a conflict of functions and responsibilities and a later restructuring with which the 'education' function once again became the responsibility of reserves management but now under the name of '**environmental awareness**.' The job of environmental awareness was undertaken in the local region as a coordinating function amongst reserve and zone management. **Communications** was retained at head office as a public relations function servicing the media and tourism.

This broad sketch of developing and shifting functional differentiation serves to overview the bureaucratization of education within the developing organization and patterns of contestation over education functions within the emergent political sociology of the institution.

Within these twists and turns in developing process, environmental education by many names emerged but all shared an orientation towards an increasing instrumental control of people so as to bring about behaviour change and thus to solve problems and to reduce risk. Early on the risk was the loss of the reserves and the problem of poaching but this rapidly swung around to the problem being the people, and the risk becoming the destruction of the environment on a global scale. Here people became the 'target groups' as educators sought to 'get the conservation message across' so as to create awareness and to solve the environment crisis.

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<sup>15</sup> The process reduction of a social knowing into objective facts as information, a commodity to be dispensed, went hand-in-hand with institutional processes shaping the delivery of messages to an outside target group. Here information like names and addresses are grouped with signified concepts and ideas as meanings that can be delivered through communication, seen as the transmitting of signals as a radio does. If simple and clear they will be received and people will change in ways that can / must be measured. This paradox remains beyond sight and scrutiny within most intervention narratives today.

## vii Developing rational orientations and specialist objective fields

The processes shaping this developing instrumental objectivity are to be found in emergent **scientific management frameworks** within the organization. For, and accompanying this detachment there developed a language and an instrumental rationality where people and publics were identified a 'target-groups' for objective communication to create awareness and to change attitudes, values and behaviour<sup>16</sup>.

Within and around scientized notions of mechanical systems and processes was developing a technical administrative engine room for the objective engineering of people inside and below in the organization, and outside, and a threat to reserves and the environment. In this way there also developed a broadening perspective that loosely held the field together as environmental education.

Initially, below and outside had been animals and ecosystems that were little understood and at risk from outside threats and a lack of insight for the regulation of the system by management actions. Change and order came with science and the reporting and enactment of management activities became increasingly directed by scientific research and administrative frameworks of accountability to head office. Hughes (1987:1, In NPB, 1987) looking back on developing conservation management systems refers to a trajectory towards *Management by policy, plan and goal setting*. He reports that by the 1980's a tradition of six monthly reports was well established but that these were:

*light weight in content and accepted with mummings of appreciation and then filed and forgotten (Hughes, 1989:1, In NPB, 1987).*

By this stage the developing organization amidst increased secure dominion over the land, and with a corresponding epistemological certainty, sought greater objectivity and control not only

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<sup>16</sup> This appears to have simply been an amalgam of the colonial military administrative order and the rhetoric of behaviourist scientific education applying to animals and to people.

over the reserves but within itself<sup>17</sup> and through to the reserves requiring that:

*the report should make every section assess its activities for a year and thus would represent a bringing together of all relevant information to review progress. This will require much more specific data gathering and the interpretation of this data so that figures gathered should be carefully analyzed (Hughes, 1987:1, In NPB, 1987).*

This first appeared as a management plan for reserve wildlife and habitats as they came to be seen as ecosystems. With administrative structural development, processes and orientations changed, expanding this concern to reserves and their ecosystems from head office scientists. Another processural shift within the expanding institution saw the shift to reserves and conservation administration within a management framework of policy linked to reserve management plan format. By 1987 this had become *Conservation: The Natal System of scientific institutional management by objectives*, presented to and ratified by experts and staff at a seminar on the development and status of the environmental management orientations of the organization.

Management plans had been shaped by scientists, rangers and administrators of the institution within a processural history through which institutional patterns of objective social regulation were able to exact greater and greater control over surroundings with more confidence. The same control was also internally achieved amongst people and within their individual self control in situations of daily steering choices in the coordinating of their activities within the expanding institutional figuration.

As these internal functional processes of scientific social regulation developed, the world outside stood in stark contrast against the order and control within the organization. Looking out from above onto the world it was apparent that things were going wrong on a widening scale. Since education had emerged as a developing way of enhanced institutional control, it began to develop as the regulating arm of the organization, but not necessarily in an explicit and overt way. The development of education and an increasing instrumental specialisation which

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<sup>17</sup> This was further motivated by administration influence, for example, the 1972 commission of enquiry into the administration and activities of the Natal Parks Board (Provincial Council of Natal, 1972).

differentiated specific 'target groups' of others was actually a fairly slow process. It emerged within a lengthening and strengthening administration amidst greater central control, objectivity and scientific natural resource management.

From the early epistemological certainty and developing educational skill of rangers in the wilderness, one finds that with promotion people moved up and out of reserves. With this the ideas moved further afield. To get a sense of this shift where small scale processes come to interact within, and to influence the larger scale, I propose to continue looking at Player and Steele as an example of developing processes within the expanding institutional frameworks around them.

Their perspective and influence moved up and outside the reserve as they moved up and out within an increasingly central and scientific organization. The shaping of environmental education in many forms was influenced by these changes and developing tensions as conservation staff became locked within a widening and tightening administrative and technical stream of events.

As outsiders, increasingly looking in, out and back on events, and with a developing conviction and certainty, the urge to educate went in many directions within differing processural patterns. First and central was wilderness 'trails' education, and behind and around this, more mundane and specialist but equally important visitor 'interpretation' education. Hand-in-hand with this went an equally specialist and more broadly focused public 'mass media' education. More directed and specialist, but also reaching out, came farmer 'extension' education. All of these developing processes were shaped within the twists, turns and struggles within the emergent conservation organization.

A brief review of developing processural characterisations of each of the key emergent areas of environmental education follows. As diverse, yet complementary, but also emergent within differing social processes, they each tell part of the story of how environmental education

emerged as diverse ideas and in differing institutional figurations into the 1980's.

### **viii Wilderness in/and elevated individual spirits**

Player moved away from developing contestations in the organization and started the Wilderness Leadership School.<sup>18</sup> Into the 1980's education on wilderness trails developed and prospered inside and outside the Umfolozi in Natal Parks Board areas. Within the organization, wilderness trails were institutionalised as a special trails service within parts of the larger reserve that had been set aside as wilderness<sup>19</sup>.

Outside in his *Wilderness Leadership School*, the trails were a specialist and more spiritual education for current and future young leaders to reflect, in wild surroundings, on self in /and a world in need of change. Through this the idea was that they might develop the awareness to do something about environmental problems.

The Wilderness Leadership School, within a global network of wilderness organisations, has undertaken many innovative programmes varying from street law to teacher education and cooperative community conservation for sustainable use of indigenous wild areas. The broad trajectories of these developing processes are similar to those of other conservation figurations, shifting from targeted interventions to community consensual forums for local decision making and problem solving. Throughout these processes, however, wilderness has sought to retain an elevated status of the spiritual high point of the entire enterprise.

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<sup>18</sup> The School had existed within the Zululand reserves framework and continued to operate within the Natal Parks Board when established outside of the institutional framework. The Wilderness Leadership School had access to Board and other areas of wild nature and developed international connectivity into the 1980's.

<sup>19</sup> Wilderness area and trail activities were stripped of much of the spiritual hype that became intertwined in the idea as it developed into an international movement. As another tourist activity, it was sanitised somewhat of spirits and dreams. The a dark and mysterious individual experience and psychoanalytical side of wilderness did not sit well with many scientists and administrators in the organization.

My attention in this study is not given to these or to developing social processes of wilderness education which presents as a somewhat closed and circular wilderness of self in search of dreams and spirits in wild nature<sup>20</sup>. The developing processes that are given more direct attention are the emergence of environmental education for school children in the wilderness of the Umgeni Valley, the next chapter.

Shaping processes before and within the Umgeni Valley was a key processural stream emergent from the Umfolozi wilderness and into the processes of environmental education that were established into the 1980's. How developing ideas were clarified and later contested into the 1990's are examined in Part Four.

#### **ix Differing balance of power in Conservancies and rural extension.**

Following the success of game capture in Zululand reserves and elsewhere, a farm-game advisory unit had been established to help farmers to conserve and to manage wild animals on their farms. As Steele moved up and out of the Umfolozi and into an involvement with farmers in the Natal Midlands, he developed a farm game plan. The Farm Game Plan can be linked back to his early life as a stockman, developing within his ranger on horseback days in Umfolozi to a vision of game management on farms cooperatively clustered as conservancies<sup>21</sup>.

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<sup>20</sup> Beyond the current myth and mystery apparent in wilderness discourse, Elias (1987a:45) points to wilderness simply as a detachment and a useful vantage point back on things. In his fisherman in a maelstrom the detachment gave his imaginary character a way out of the dilemma. Wilderness is equally a compelling detachment from which to look back on modern life and its problems and, hopefully, to get a firmer grasp on things that one is caught up in. The ecstatic element of the wilds has tended to obscure sight of this less compelling detachment that might simply enable people to get a firmer grasp of themselves and their world.

<sup>21</sup> The emergence of conservancies, as a developing social process cannot simply be ascribed to the people involved. Steel was a player with many others from the early farm game unit to interacting farmers and the wider developing processes within which they were intermeshed in the times. Today the first conservancy is said to be '*a wholly private initiative by concerned landowners*' (Kotze, 1993:17). Individuals and independent groups sit interdependent within developing processes and contexts where there are not necessarily single starting points and where ideas are not static. A seeking of origins and start at a single point in time, individual or

My concern here is not to examine the web of developing processes in conservancies but to look at the power gradient in the process, particularly the balance of power maintained within the intermeshing figurations of scientists and farmers. The former seek to influence with the extension of advice to farmers on wildlife management, and thus to enhance and maintain the institutional goal of regional biodiversity. The farmers did not want to be regulated from outside and have sought a developing range of benefits from security, conservation of water resources, alien plant control, hunting / game-meat and ecotourism to increase farm income etc.

Within the developing processes associated with conservancies, a balance of power has been maintained. Scientific *conservancy management guidelines* to achieve wildlife management on farms have been applied within chosen 'degrees of implementation' by farmers (Kotze, 1993:56). The same cannot be said of developing social processes and models of environmental education for rural peasant (black) farmers.

Early on interactive processes with rural peasants were precluded by apartheid policies that created separate homeland departments of nature conservation for black tribal areas. Many of these rural areas were around the large game reserves and patterns of environmental education were slow to change from 'capture and punishment' within the anti poaching laws.

As this change took place the processes initially developed outside formal conservation structures and through very different processes (See Chapter 10). This makes an interesting story when compared with the figurations and institutionalised ideas that emerged in a situation of an equal but shifting balance of power with white farmers in conservancies.

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place, is an error often apparent in an historical vantage point within which it is often difficult to conceptualize that developing process of the times and how they shaped ideas in differing ways and diverse contexts and over time with no absolute start or single origin. Conservancies are a case in point, being more an emergent idea within developing processes amongst farmers and conservationists and, over time, giving rise to changed figurations and new and developing ideas. See Kotze (1993) for an historical perspective on the development of conservancies.

Ironically, when Steele moved to head the KwaZulu Bureau of Nature Conservation in the Zulu apartheid homeland, one does not find the idea of conservancies developing there. Differing social processes and power gradients gave rise to other developing processes of community education. These have also changed within processural trends in tribal social figurations and are currently an axis of tension with the recent levelling of power gradients. Other processes within the developing story of black environmental education are examined in the next chapter, particularly the African Conservation Education (ACE) movement within the Wildlife Society of Southern Africa.

## x From Interpretation to environmental awareness

Specialist interpretation, as we have seen, emerged in the 1970's. The idea of park **interpretation** as visitor education developed through contact with the United States Parks System. As parks organisations developed within international connectivities they began to learn from each other and to draw on ideas developed in differing reserve contexts<sup>22</sup>.

Within the developing organization, interpretation initially emerged as a specialist function outside reserve management but was soon replaced by environmental awareness located within conservation line-management. New education functions to create environmental awareness were centred away from visitors to reserves and school groups to reserve neighbours, the chief threat into the 1990's. Within the developing political sociology within parks, specialist functions and the administration there were numerous contestations that led to the redefining of functions within changing patterns of risk and desired administrative influence. The two examples of significance are the retention of wilderness and farm game extension within administrative functions in the 1980's and the reintegration of interpretation as environmental

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<sup>22</sup> Note how the Eliasian view is of a processural reaching out and an coming together with many and increasing processes of interaction. This differs from an historical notion of sweeping movement of ideas eg Colonial conservation from Europe to Africa.

awareness into the 1990's<sup>23</sup>.

Another emergent trajectory of note is the interpretation section developing school education services as a key function<sup>24</sup>.

## **xi From interpretation services to teachers equipped to do it themselves**

An education officer was appointed to work with education departments in 1977 and ranger naturalists began providing visitor and school interpretative services at some nature reserves during the same period. By 1980's an enthusiastic and wide ranging comment on education reports on a 'teachers guide' and an 'operations room' to coordinate school field studies, an international conference on environmental education at Treverton, and University and Teacher College involvement in environmental education exercises at Spioenkop Dam, concluding:

*The vital need for environmental education which was seriously promoted by the Board in the late seventies has begun to bear fruit. There is little doubt that this movement nurtured and geared to meet the massive increase in visitor numbers will, in the long term, act as a bulwark against the stream of indifference to natural things (NPB Annual Report 1981/82:48).*

Behind this enthusiastic institutional perspective are the developing processes on and from the reserves through which the imperative for revitalising educative change emerged as a shared vision pursued with increased missionary zeal. Also apparent is a developing administrative view, higher up the organization, wishing to convince and convert by getting the conservation messages across to the Other, out there. An increasing enthusiasm for this came with the excitement and success associated with children in nature, and the earlier engineering struggles came out into the open as an educational enterprise of hope for changing humanity as a

<sup>23</sup> NPB Annual Report, 1972/73:4. Of note here is that developing Farm Game and Wilderness were distinct and separate categories of 'education' under the control of figurations of scientists and reserve managers. Tensions amongst these groups were to develop into the 1980's and change in the form of environmental awareness coordinators was to appear in the 1990's.

<sup>24</sup> Environmental education was very different in other park services around the country where centres and specialist functions emerged within conservation bureaucracies. Environmental education for blacks is of particular note, where centres were set up especially for this function in many areas.

whole.<sup>25</sup>

Into the late 1980's other priorities around reserves were to lead to a terminating of school services with the establishment of environmental awareness officers within nature conservation management, rather than as a specialist service. These changes prompted the development of an environmental education services unit that sought to provide teachers with the tools for the job to do it themselves on nature reserve visits, rather than hand over the children to be entertained and inspired by nature conservation staff. These changes prompted the establishment of the Share-Net cooperative venture to develop resource materials for environmental education with the Wildlife Society of Souther Africa at the Umgeni Valley Project.. It is within these processes that the papers and questions shaping this study followed within a ten year period of clarifying work amongst children, teachers, environmental education officers and community projects.

## **xii A broad overview of developing processes**

In and around the Natal Parks Board into the 1980's were developing processes which served to expand and to seed environmental education on a widening scale. Within the developing bureaucracy were already somewhat isolated and diffuse education processes, wilderness, extension / conservancies and interpretation services with target groups on reserves and within the general public. Into the latter at a somewhat late stage came formal education and the idea of environmental education in the syllabus.

A loose conservation education perspective binding all of these areas into a broad concern developed as somewhat of an enthusiastic rolling maul into the 1980's. Despite its diverse mix

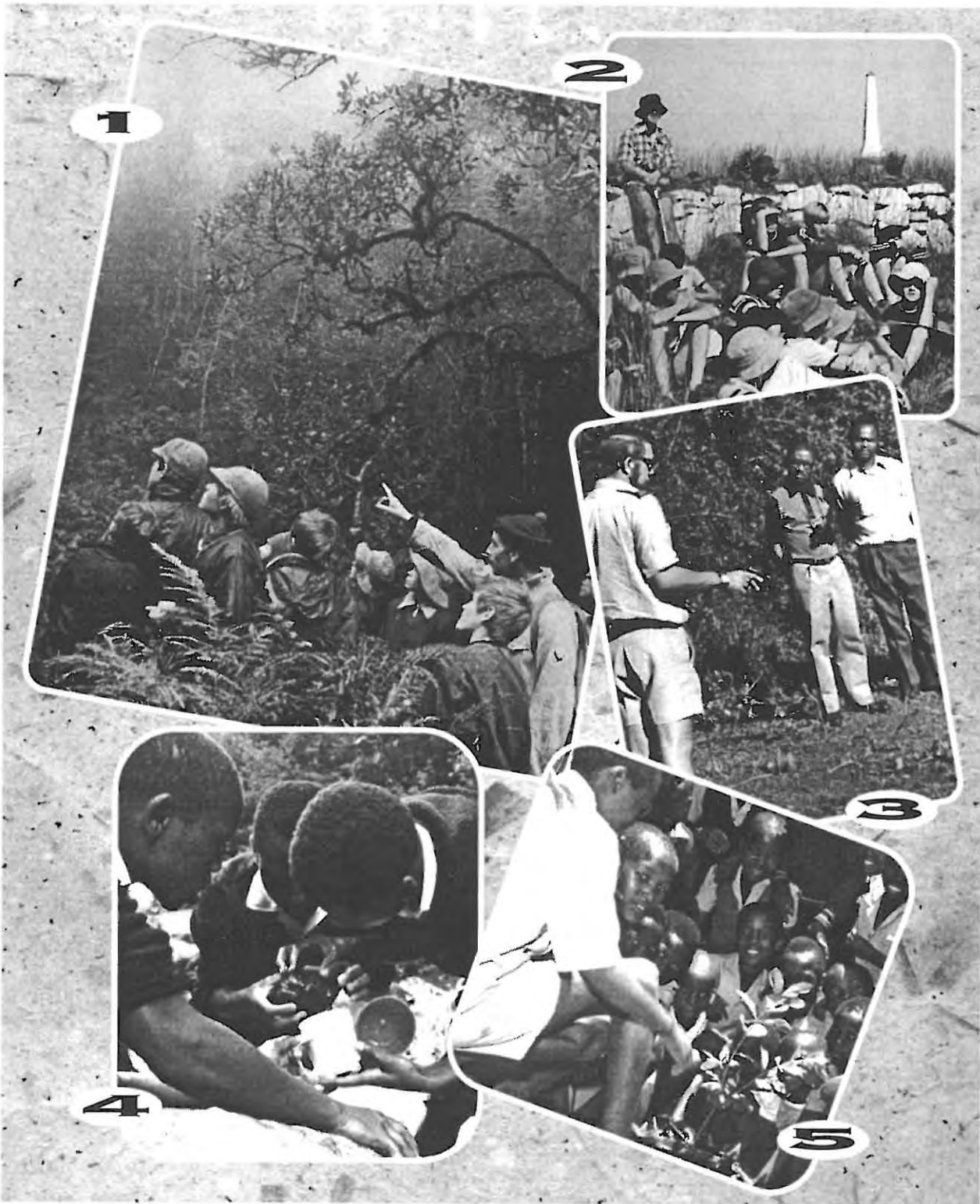
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<sup>25</sup> It is difficult for us to understand this now when education is taken for granted in so many ways. Prior to the 1980's much of the education had been exercised as a behind the scenes engineering intent but within the excitement and spontaneity of children in nature and conferences (Skukusa, Pretoria and Treverton) there was a buzz and an openness and a confidence not apparent before.

of ideas, methods, myths and gurus there was a shared conviction that education could and would change the world. A key melting pot that brought much of this education conviction into enthusiastic focus as environmental education, was the Joint Venture / Umgeni Valley project and early developments in black education.

Both of these ran parallel with developments in the Natal Parks Board with an interdependence that is neither readily apparent nor traceable back to the social construction of nature in nature reserves, a small processural turn and developing processes on early game reserves. These, as we have seen, had developing implications on a wide scale, particularly amongst programmes for children in nature and amongst indigenous people as they came back into the story into the 1980's and participated in developing environmental education programmes on a widening scale.

## Environmental Education activities with children and teachers\*



- \* 1. Don Richards on trail in the Karkloof with a school group in the 1970's.  
2. School group on Spioenkop Hill during early Natal Parks Board programmes in 1980's.  
3. Ranger-Naturalist Barry Marshall with teachers on ACE programme visiting Hlululwe, 1980's. 4. Children doing a water study in the Umgeni Valley 1990's. 5. School children planting a tree on Arbour Day, 1990's..

## CHAPTER EIGHT

### A wilderness of nature awareness education

*people find themselves subjected to compelling forces. They seek to understand them so that with the help of this knowledge they may gain control over the blind course of these compelling forces, the effects of which for them are often senseless and destructive, causing much suffering. ...egocentric modes of expression are mixed with others which, modelled on the vocabulary used to explain compelling forces of nature, are now used to explain [and to model education for restoring control over] the compelling forces in society. (Elias, 1970: 17. My brackets.)*

In this chapter I look at a case of developing social processes where the education of children in natural settings became environmental education in a field centre and a school curriculum context in eastern southern Africa. The developing story is open-ended and grows in a cycling and expanding way from/within small scale social processes in wild nature amongst people who 'know' the pattern that connects, and those who are fascinated with their stories and are 'coming to know' with developing ecological insight. Within a developing amalgam of egocentric, magico-mystical and scientific thinking and speaking, an open-ended educational process is modelled and refined. One developing turn of involvement becomes a narrow cycle of mysticism but within the debris are compelling processes that are open to further thinking and speaking, within a continuing struggle of involvement and detachment, to clarify better models for to the compulsion to educate, to reduce the senseless destruction of human surroundings by ourselves.

#### **i The Umfolozi wilderness shaping of nature experience education**

In the case examined here, the developing story of environmental education came with a changing sense of interdependence and intensifying risk in human surroundings on Zululand game reserves. Along with emergent ecological knowledge and a sense of an environment crisis came a desire to change how people were living in the environment by influencing their

awareness of nature and of conservation problems. In simple terms, social processes which revealed wild nature as an ecosystem served to reveal people as destroyers of the environment and lacking in awareness. These developing processes gave rise to education which, in the case examined here, set out to change individual awareness in/of wild nature to conserve the environment.

The developing idea of education loosely emerged as nature experience to create ecological awareness and thus to restore an holistic harmony amongst people living together in the environment. The holistic vision and an imperative to educate in nature to achieve a utopian state of harmony developed, in this case, within reflexive social processes in nature reserve wilderness. The idea emerged over an extended period, amongst conservationists working together and with learners becoming aware in/of wild nature and of environmental problems associated with human activities.

As early as 1943, at a national level, there was talk of introducing conservation into formal education through a schools' week. This was popular at the time and was followed by talk about soil erosion into the 1950's and a conservation syllabus by 1953. The classroom/book, pencil and paper nature of this syllabus was to be an axis of tension that lead teachers into the outdoors. Early amongst this were schools expeditions in Zululand that started to take children into the reserves and wild nature. By 1957 schools on wilderness trails started to develop.

The developing idea of 'education' in wild nature emerged in the Umfolozi<sup>1</sup> in this story, and

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<sup>1</sup> The line of development from the Umfolozi wilderness is apparent in the people involved. Richards and Shuter were Natal Parks Board 'wilderness rangers' and Clive Walker has a long association with Player and Wilderness. It is, however, not the people that concern me but the processes which brought environmental education into being within the developing figurations within which they became interdependent. There were others and other similar processes elsewhere as there are today in an open-ended development of environmental education. Here I give attention to processes in the day as environmental education for schools emerged and was shaped within a field centre in eastern southern Africa.

diverged within processes in three key social figurations<sup>2</sup>, The Natal Parks Board, The Wilderness Leadership School and The Wildlife Society, but by no means exclusively. There was no originating source and the idea has also emerged in differing ways in other developing contexts, and continues to do so.

The emergent conservation figurations interacted and overlapped in many ways, developing an intermeshed connectivity in diverse processes of education. Wilderness (conservation) educators learned with/from each other and responded within shifting institutional processes shaping diverse experiential notions as 'models of process' for education in/about nature and for the environment.

The Wildlife Society, as an emergent protectionist social figuration, had been central in the nagana campaign and in the contestation for the establishment of game reserves. Its prominence receded in these functions with the development of a formal conservation institution, the Natal Parks Board. It emerged again, with other partners, in the 1970's and was to be central in processes which lead to the development of environmental education in the region. The two main thrusts were wilderness 'venture' education for schools in the Umgeni Valley and African Conservation Education (ACE)<sup>3</sup>.

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<sup>2</sup> This is not a linear developmental process as the Wildlife Society preceded the Natal Parks Board and the Wilderness Leadership School existed within the Natal Parks Board for its early years. Equally, by centring my attention on these developing figurations I do not deny or diminish the importance of other processes like the visits of teachers and their developing reflections on curriculum design in light of strong feelings of 'nature revealed and people at risk' as these developed in the reserves or elsewhere, even through television images. Within this open-ended view of process and the decision to look at a few developing and particularly significant trends there is also a sense in which the pictures revealed by a close examination of developing process are significant and revealing of a broader picture that the areas share, but in an open-ended way.

<sup>3</sup> The clear distinction apparent between the Natal Parks Board and Wildlife Society developed later the former being a formal state funded institution (NPB) and the latter a public membership organization (WLS). The two are very much intermeshed with many Natal Parks Board employees being active members of the WLS and members of the society being regular visitors to reserves, considerable funding for conservation being secured through these close ties. In this way the developing 'African Conservation Education,' somewhat in the background, was actually more like an ACE up our sleeves of the Natal Parks Board, supported and encouraged, but not putting them in open contestation with national apartheid policies, tacitly supported by more and more white voters into the 1970's when the United Party lost the majority in the Natal house. By 1976, Garth Owen-Smith the early 'white ace'

## ii Ecology within a wilderness experience venture for schools

The emergent processes from the Umfolozi wilderness meshed in an holistic joint venture for schools. Developing processes continued through 'venture' trails in the wilderness, to conservation education / environmental education and an environmental studies curriculum. These interactions amongst the Umfolozi wilderness, the Umgeni Valley Project and later into Treverton school, were intermeshing threads of process that wove an early and developing fabric of environmental education in eastern southern Africa.

Following the earlier story of the Umfolozi and a brief Karkloof Environmental Education Project (KEEP) a developing synthesis emerged when The Wilderness Leadership School, Wildlife Society and Natal Hunters Association started a *Joint Venture* to provide wilderness learning experiences for school children into the 1980's. They chose a safe wilderness<sup>4</sup> at Howick<sup>5</sup> in the Natal Midlands, within easy reach of urban schools in Natal.

The key processural picture here is developing ecological ideas revealing an interdependent environment at risk. Along with this the developing ecological images of the pattern that connect came to be reflected in an idealised view of early man in wild nature. Also, developing processes continued to shape an educative 'venture' for the reshaping of the individual by creating ecological awareness in wild nature, a key process in early environmental education and an underpinning of developing perspectives in the field.

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educator of blacks had trained a 'black ace,' Simeon Gcumisa. By 1982 ACE was divided into two programmes, one in the conservation and education department of the KwaZulu homeland government, and the other as a 'black schools programme' in the Umgeni Valley Project (Pringle, 1982:270). These distinctions are less apparent and diminishing today.

4 After the developing interest amongst schools when Player took them on trails in Zululand, the Natal Parks Board was to set an age limit which restricted wilderness trails to adults and then high school aged pupils with parents consent.

5 Initially at Karkloof (KEEP) and at the Umgeni Valley (Joint Venture), and then as the Umgeni Valley Project when the Wildlife Society bought the reserve. The purchase was a campaign that involved children and schools fund raising and work parties of enthusiasts building camps over weekends. This hands-on partnership with schools and members of the society is still apparent today.

Ecological interdependence within wild nature was constructed within fantasy in/and experience of wilderness in game reserves<sup>6</sup>. Here an interplay of involvement and detachment gave rise to a developing symbolic capital of imaginings of interdependence (Chapter 7). These were mediated and tested in struggle within reserves and within a broader intergenerational differentiation of evolution. The idea of evolution emerged before the turn of the century developing from insight into animal adaptations (form and function) and the notion of changing distribution and abundance (broader and more detached view) and the concept of wider networks of interdependence called ecosystems, all emergent as a developing synthesis within the field of ecology.

The socio-symbolic process here is simply a long term developing synthesis with detached observations and accumulating insight being interpretatively put together into a more differentiated picture at a differing level of synthesis over time. The emergent symbolic capital is shown within ongoing experience to have a high level of reality congruence, empowering an awareness of interconnections in the environment for making better steering choices in situations of risk.

Into the 1980's ecologists wrote:

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<sup>6</sup> A sense of these processes is apparent in chapter 7. As they entered the universe of ideas they became facts and the process of getting to these became more formal. By 1980 as ecology was being pulled together in the region the process was interpreted as:  
*We begin with observations and specific examples which lead to ideas about the ways in which the world around us works. With a bit of meshing and pruning the ideas are developed into concepts. When formalised and stated explicitly, the concepts become hypotheses (hopefully testable). If then we fail sufficiently often to disprove the hypothesis, they become principles. (Walker and Richards 1975:1)*

The same early observations and feelings that went into universities to be mediated as science came into environmental education as a capital of ideas for making people aware. The mediating role of the university and its ecologists are now correcting many of the myths of natural harmonies but these are imbedded in the spiritual ideals of nature experience / wilderness notions of environmental education. Here one can get a separation of feelingful images that satisfy and facts that challenge. Academic mediation of facts and dialectic amongst cognitive and affective were to become a key issue in 'earth-love education' into the 1990's. See Part Five.

*Perhaps the most striking thing to emerge from our efforts was the realization of just how few clearly stated principles there are. Small wonder that those who try to use ecological 'principles' in the management of our natural resources find it difficult to know what to do (Walker and Richards, 1975:71).*

Whereas the detour via the detachment of ecologists was struggling to clarify its developing symbolic capital for understanding the world, the involvement of environmental education in the same early ecological ideas was closing the circle on a spiritual ideology of education for awareness in/of nature to change the world<sup>7</sup>.

The early ecological picture of surroundings became the first core curriculum for environmental education in the Umgeni Valley. The curriculum is reported as follows:

*Subjects covered are energy flow, natural resources, population explosion, game reserve management, animal adaptations, interrelationships, associations, territorial behaviour and dynamics. A dissection of an animal is done and scholars are able to relate the anatomy to their own bodies. Field studies also cover subjects such as the makeup of soil, successions, soil erosion and geology. Field trails are undertaken and the children sleep out under the stars, so that they experience the beauty of sunrises and sunsets. They experience heat, cold, scratches, getting wet and physically tired (Wilderness Leadership School, 1974:4).*

### **iii Ecology and experience as text for wilderness as teacher**

The education process apparent here had been tried and tested in the Umfolozi wilderness and elsewhere<sup>8</sup>. The vision of 1974 was spelled out in a textbook in 1975<sup>9</sup>, was clarified within developing processes in the field into a paper in 1976,<sup>10</sup> and as an environmental studies curriculum in Treverton school for the first environmental education conference in southern

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<sup>7</sup> As the doubt and uncertainty of developing ecological ideas came back into the story in the 1980's then a critical questioning of underlying assumptions, beliefs and educational processes was to emerge and is still with us in environmental education today.

<sup>8</sup> Of particular note is the Rhodesian (Zimbabwe) Mushandike 'School in the bush' of 1970. See Wildlife Society, 1976:10.

<sup>9</sup> Walker and Richards (1975) *Walk through the Wilderness*.

<sup>10</sup> Richards (1976) The Umgeni Valley Project. By this stage the Joint Venture was no more and the project was under the administration of the Wildlife Society.

Africa in 1982<sup>11</sup>.

Although the emergent environmental studies curriculum presents as clear structures and functions, these are essentially fragments of earlier interactions which, with greater confidence and a developing vision, became a new holistic synthesis for teaching and learning in wild nature and human surrounds. The holistic environmental education idea developed within feelings of risk and wilderness experiences of developing awareness, seeing such awareness in children and wanting it to happen to everyone to reduce the developing risk in the world.

The earlier open-ended image of a wilderness 'venture' for education in the natural environment of the Umgeni Valley was developed upon and around a fantasy of primitive societies living interdependent within a wilderness of abundant wildlife. Loosely stated, the early idea of nature experience education emerged as diverse amalgams amidst the wilderness of the bible and the noble savage of colonial expansion as these were reshaped within open-ended developing processes in an involvement amongst ecstatic encounters in wild nature and a sense of interdependence amongst all living things, present and past<sup>12</sup>.

Wilderness symbolised an early, open-ended and developing detachment emergent within

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<sup>11</sup> Richards (1978 & 1982) developed a programme of environmental education across the curriculum at Treverton. This process is merely one example of an emerging diversity of ideas developing within other contexts and through differing processes around the world. It thus does not reflect a core from which other ideas developed but is merely an example. Being early on it is very useful for revealing developing processes and shifts that are later taken for granted. That is why I have used it as an example of developing process here. Later people would say that they had made no assumptions about humans as utopian noble savages who had become uncivilized towards and within the environment of our modern world. But, by then much of this was so taken for granted that it was beyond immediate sight and much was sedimented as fact accepted by all without question. Into the 1990's much of the early certainty and developing spiritualisation was to be upset and this was to be very upsetting for those involved in utopian myths of civilising modern man within an image of the spirits of noble savages in an earlier sustainability in/on the land.

<sup>12</sup> The interwoven developing processes here are difficult to see today and are easy to dismiss in a condition that seeks opposites within an involvement in the struggles and risk of the present. Here I am not looking at a noble savage to savagely suppress or at a bad dream to be forgotten, but at a noble and developing struggle in risk that shaped a noble enterprise, the diverse education enterprises we are trying to clarify so as to engage in these processes with more clarity today.

wider experience and intergenerational<sup>13</sup> social processes within which humans came to look back on their environment and upon earlier times with developing insight. With this vantage point, and developing social processes in the game reserve wilderness, ecology as a sense of interdependence was the central idea in the early conservation education venture in the Umgeni Valley<sup>14</sup>.

*Ecology defined simply as the study of all living creatures in relation to their environment - involves a whole host of individual subjects and, in so doing creates wonderful opportunities for exceptional botanical and biological observation anywhere; ....such observations are sharpened and dramatised by the underlying presence of wildlife with its own particular brand of magic from prehistoric aeons. ...All around, one senses the primeval origins, mysteries and myths which make the wilderness of southern Africa one of mankind's very first homes<sup>15</sup>. ....senses can be exercised as one walks in the wilderness. ...the development of your awareness begins to amaze and delight you. ...makes the personal discovery of wilderness a never-ending, completely rewarding process. Moreover, how forcibly are we reminded of our very insignificant role in the great plan (Walker and Richards, 1975:xx - xxi. My brackets).*

Within these extracts from the introduction to this early 'wilderness' education 'text book' is a methodological model of process socially constructed within the developing stories amongst game ranger teachers involved in the ecstasies, challenges and fascination of wilderness experience with children. A key process here was an animistic charm and insightful innocence in the spontaneous utterances of children. These appear to have awakened images of youth, freedom and hope in those involved within a close circle romantic imaginings and the uncertainty of modernist contingency amidst the overwhelming environmental problems of the

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<sup>13</sup> A radical distinction between the bible behind the civilising of colonisation from Europe and the images of indigenous peoples should not be assumed. A meshing of ideas can be found in the interactions amongst Player and Ntombela, and in a detachment on hunt from settlement, trade with coastal towns as well as in the induction of adolescents into manhood was long sedimented in indigenous communal life. Here in the words of Mennell (1992:186) *the differences are only degrees along a continuum*, but we often take and mistakenly create them to be much more.

<sup>14</sup> The developing knowledge and power noted in chapter 6 is a window on the emergence of a wider symbolic capital of interdependence amidst the risk of environmental degradation, and a concurrent developing ability to look back further within earlier generations, with greater detachment.

<sup>15</sup> Of note here is Richard's early wilderness schooling within the narratives of Player and Ntombela and their early interactions with the romantic notions of Wil Foster (Foster, 1953) of the earlier colonial conservation era. Here early creative imaginings and utopian stories have successively become a firmer fabric of myth as compelling historical fact experienced in wild nature.

day.<sup>16</sup> Open-ended romantic imaginings took many forms and developed in diverse searching narratives and spiritual turns that sought relief from the shattering realities in a world of risk.

Within these open processes there developed an imperative to educate which successively conceptualised models of process for developing awareness in ways that could be 'methodologically enacted' within 'wilderness ventures for children.' This became the environmental education that emerged within the Umfolozi wilderness and took many open-ended developing turns amongst KEEP (Karkloof Environmental Education Project), the Joint Venture that followed this and the later Umgeni Valley Project, Treverton conference and the 1982 formation of EEASA (Environmental Education Association of Southern Africa). The conditions of wilderness ecstasy, ecological insight, experience amongst the spontaneity of children and a world at risk, shaped a solidarity and a vision that was to be shared at Treverton and within EEASA into the 1980's, but which was not to stand up to scrutiny within the challenging processes of the 1990's. But these interpretative insight and projections run ahead of the story, so I return to the shaping struggles and ecstasies of the wilderness, and a strengthening notion of experiential environmental education in wild nature.

Here, in simple terms, my (our) story of developing awareness, for the wilderness rangers whilst involved with, and looking in on, others developing similar awareness, gives rise to a

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<sup>16</sup> These processes are often lost behind curtains of fact as dogma, that often jump into place within imaginative spiritual synthesis such as sketched in an open-ended way here. These are seldom written down and are not often offered up for scrutiny. I have had flights of imaginative insight such as this and know of the strong shared conviction that can come with a close love of children in/and nature. These ecstasies of uplifting escape can inspire others and roll forward in romancing stories that weave new possibilities that inspire and shape movements amongst others. There have been many such circulating surges in environmental education. See Player (1987b) in his *wilderness passage*, Opie (1992) *awakenings* in experiences and writings amongst children on the seashore and in the forest, and more recently a grand synthesis within *The rebirth of nature* of Sheldrake (1990). These and many other international narratives of environmental education are all powerful and compelling narratives emergent within these developing conditions. They give satisfaction and status to those involved but a developing dogma closes off a sense of how all social struggles can spawn these turns and the long developing struggles to extricate ourselves from them.

blueprint for educational 'ventures' to develop the awareness of others<sup>17</sup>. Key shaping dimensions of this developing story are to be found in how an ecology of the present looked back on the indigenous peoples of southern Africa.

#### iv 'Ecologizing' noble savages in a story of sustainable wilderness lost

The imperative to make others aware which came amidst developing risk was not enough in itself. What was also needed was an image of how humans had fallen / strayed from the path of sustainable living. This image emerged within reflexive processes as a developing ecological perspective was superimposed on the earlier colonial noble savage to bring him to life in a utopian world of abundant resources and wildlife<sup>18</sup>.

The developing image was then set against the escalating risks of the day to expose modern man as the destroyer of his environment owing to a lost / lack of awareness. In the wilderness text of the times one finds:

*In terms of conservation the Bushman was an early pioneer, for then both man and beast are equal. ...With his famous rock-art, the Bushman recorded for posterity the story of his own life style, his rituals, customs, culture and mythology, and also the animal herds that once roamed the land.*

*...Although the Bushman living in the more arid regions of Botswana has suffered some cultural restrictions imposed by the environment, the hunter-gatherer has developed an intricate association with his environment, which has been ecologically unaffected by his occupation over many years.*

*...The Bushman's place in the ecology of the reserves is that of predator on the ungulates, springhares, jackals, foxes, rodents, birds and insects which they hunt and eat. Bushmen are also the rivals of browsers and fruit eaters for the edible plant*

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<sup>17</sup> Here I must remind myself and readers that we are dealing with an example of an open developing process in a specific area. There were other developing processes and there were differing trends elsewhere, as there are today. Within these, however, there are broad similarities and advancing patterns of interdependence. These are to be found behind and within what presents as 'environmental', 'development', 'wilderness' and 'outdoor' or 'adventure' education today.

<sup>18</sup> Far from simply being an historical import in the minds of colonists from Europe, the game reserve and this noble savage is a struggle in/of Africa reflected in a processural shift in the human story on the planet.

*foods. In collecting plants with edible seeds, the Bushmen act as seed distributors, although the importance of this role is less than that achieved by mammals and birds in the act of seed dispersal. In their utilisation of bulbs and tubers, they are careful not to strip an area completely but always leave some plants intact as seed-bearers for the next season.*

*....Bushman hunting has not been sufficiently intense to cause any disturbance of the ecological balance and they are, therefore, an integral part of a fairly stable ecology (Walker and Richards, 1975:43-45. My emphasis).*

## v Harmonising modern man in the mirror of nature's ecology

The process of 'ecologizing' the Bushman placed 'man' in a dialectical process with/against Bushmen in/and wild nature, a utopian picture of universal harmony lost to 'civilised (modern) man' through a lack of awareness in/of nature.

Here within a risky world of fascinating experiences, worrying opposites and insight / dreams in/of the wilderness, were a web of developing processes within which Player, Richards, Shuter, Walker and others conceived a wilderness (Umgeni Valley) for educational 'ventures' to make future generations aware, and thus to lift human kind out of a developing wilderness of their own creation. The story continues...

*Bushmen rely on the unimproved, natural resources of an area, making no attempt to improve and stabilize its productivity by domesticating animals for milk, meat, skins or wool, nor do they stimulate the growth of the edible plants by cultivating them.*

*...Among the bushmen, there is no competition for food plants .... competition is suppressed by the pervasive insistence of cooperation, and women will ensure that enough plants exist for food-gatherers from another tribe. ...Bushmen display much imagination .....Berries are crushed, roots are roasted and wood-fibres ground and chewed for maximum nutrition and appetite appeal (Walker and Richards, 1975:45).*

These developed processes of counterpoising and putting people and self in the picture shaped an experiential methodological imperative and also a founding myth as fact:

*In the early days of the earth, people such as the Red Indian and the Bushmen lived in harmony with their environment; they knew that their lives depended on knowledge of sound ecological concepts. Today, we are beginning to learn (Walker and Richards, 1975:92).*

Within this developing narrative, new generations were brought to the wilderness to be taught ecology and it was soon called environmental education. The environment was the teacher and the adult the guide for people to find their own way into the ecology of wild natural man<sup>19</sup> so that pupils could look out at and in on the heart of modern man, and resolve to change mankind / self.

## vi Wilderness education as an experiential mystical circle

For this developing wilderness education process, pupils were instructed in ecology and ventured forth into the bush to discover an awareness of it and self together, for themselves, under the guiding hand of a trail leader. They experienced the discomforts of nature. They were left alone in it to reflect on themselves in/and it, and on the modern world emergent out of, and destroying itself beyond the green island wilderness. These sweeping processural images are found in some of the poetry in/on wilderness that was sold to buy the small urban wilderness of the Umgeni for the developing environmental education programmes of the Wildlife Society.

*I walked beside a forest stream  
that tumbled over rocks and rills.  
Splashing happily along the fern-dappled patches till  
It plunged down cleft in waterfall,  
continued on its journey - then  
A deep pool I perchance did find  
Glistening in the sunlight pure  
Still and silent, secret did it lure me.  
I stepped out of garments  
Clad by man, and entered God's celestial balm of water  
Cleansing to the soul.  
I was free unencumbered,  
Part of and one with that pool of infinite source and calm.  
Perchance I gazed onto further bank and saw  
- mankind fettered there.  
Clad in his pleasures-bent desire, conforming to society.  
Gazing anxiously around, grasping, seizing unhappily  
I beckoned, asking them to join me in this pool of tranquil peace and balm.  
But they! too anxious for their possessed desire, declined and turned their backs on me.*

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<sup>19</sup> 'Man' was a pervasive convention at the time. It is used within most of the work sheets of the time.

*One day, I thought they too, will walk along the stream,  
Amongst the sun-dappled ferns and forest pure.  
And they too will find the pool, waiting at the journey's end.  
Fulfilling the ultimate desire  
(Richards and Shuter, 1977).*

In the 1980's this was a compelling image from within the pools in the Umgeni Valley. Environmental education had become 'a specialised fieldwork method' undertaken by a close-knit subculture of mainly young people, happy together in a spiritual solidarity of environmental education to make children aware of/in nature, and of a world at risk.

In looking back on this involved figuration of early environmental educators, they appear as a small crew involved in a shared spiritual quest for awareness in nature, dedicated fishers of men in a wilderness lifeboat on the fringes of society, enticing young people aboard the good ship 'environmental awareness.' With the insight of an Eliasian vantage point their intensifying spiritual involvement within this task binds them in a developing hegemonical fever, blinded within a narrowing spiritualising circle amidst the maelstrom of the environment crisis<sup>20</sup>.

The question of involving close spiritual circles in environmental education preceded the clarifying struggles of the 1980's, and continues today. On the reserves and in day-to-day environmental education, at the time, there was little sense of a conceptual and methodological dilemma in 'nature experience as teacher of ecological interdependence' or of the clarifying struggles to come. Now, the wilderness venture seems somewhat of a blind narrowing turn where people, unable to see back, or in on, developing processes in the times, got caught up in compelling romances of nature's interdependence and self. Pressing involvement in the pressures of the day shaped dreams of it and self in the close company of other dedicated spirits

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<sup>20</sup> This is a complex amalgam of Eliasian sensitising metaphorical images of fishermen, lifeboats and involved spiritualisation that is difficult to reference (Elias, 1987a). It seeks to reveal processes within closing circles as people, in the times, became locked within the compelling spirits of narrowing company and self. I do not mix the metaphor carelessly for effect but carefully locate them within developing processes for a sense of shaping turns that were beyond our view in the times. These shaping processes preceded clarifying struggles into the 1980's. Here, amidst a developing institutional rationalism, we began to grapple with emergent conceptual ambiguities in a search for greater clarity in environmental education.

and charismatic spiritual leaders. These developing turns are part of earlier shaping struggles that are now more visible to us as we begin to reflect with critical insight on the emergence of environmental education, with the benefit of hindsight.

As I have followed emergent figurations and social processes of interaction, and have become intermeshed within the early story in the wilderness, somewhat ironically within the text itself I came upon an image of unsettling contradictions in the developing story of 'experiential education.'<sup>21</sup>

*I gazed at the pool and reflected on the reflections there. They were but the image of the real and not the actual substance from the source.  
Man looks upon too many reflections so,  
not seeing the Source in the objects scrutinised  
(Richards and Shuter, 1977: No page numbers).*

Herein lie contradictions; don't reflect or you will not be able to see God/Mother Earth, and do reflect to see yourself and clarify your values. But the whole early wilderness environmental education enterprise is a closed spiritual circle of individual fascination and experience in wilderness imaginatively transposed onto an experiential methodology for others to develop the same awareness and spirit.

Ironically this methodological picture contrasts with the struggle amongst involvement and detachment within pressing risk and processural experience / observation / fascination seen in the reserves in the 1960's (Chapter 6). Here it seems is more evidence that human interpretations of process do not have much sight of shaping processes when people are involved within these. Early environmental education must count as a slow shift within which we are developing more insight but might serve to warn of closed involvement that can circle in reflections of self, and spiritual experiences bringing forth gurus who lead the way amongst a narrow band of dedicated followers. Here the quest as it chases after itself, comes to assume an aura of comprehension and understanding for those who secure an identity within the circle

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<sup>21</sup> The term itself is contradictory when one uses the Eliasian term of looking for a case or earlier state of non-experiential education.

of the elite, clad in khaki and leather sandals, reflecting on reflexive fantasies in wilderness surroundings.

## vii Openings beyond the spiritual circle of nature's wilderness

The same pattern seems to have been repeated in many developing processes of environmental education in recent times but is by no means pervasive. Not all involved get drawn into a narrowing circle of spiritualising social engineering. For most, things remain more open-ended, as experience of an interdependence in nature becomes an explicit fascination offering new insights into the pattern that connects and the struggles that face human kind. Elias (1987b) describes and leaves open-ended, how overwhelming feelings of insurmountable risk can impel narrowing spiritualisation, and where developing detachment might achieve greater reality congruence, but not necessarily so.

Refined observation, developing differentiation of great elegance and potential for enhanced orientation are apparent in many writings and soaring fantasies. For example:

*The terrapin is a timid fellow. You may sit at a pan for hours and not see him. Then suddenly there he is - peeping at you shyly - only enough of his face showing above the surface of the water to allow him to see the other half of his world. But make a move and he is gone - away to the safety of an element free of danger.*

*If you are patient and you sit long and numb, you may see him haul his ponderous person out of the water for a sun-bath. Then watch carefully as the mud dries in patches on his back, and feel with him the soaking warmth of the sun. Do not allow your attention to wander, however for he shall melt into the river bank as quickly as the morning mist does at the command of the sun.*

*It would be wonderful to have time enough to be like a terrapin (Richards and Shuter, 1977).*

This is a refining and soaring socio-symbolic process where creative fantasy is kept in check with factual observation<sup>22</sup>. It can be part of fruitful education processes that might enable one

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<sup>22</sup> Elias, 1970:23.

to see beyond the magico-mystical shroud that came to cover a developing spiritual wilderness of environmental education into the 1980's. This takes one to the heart of the matter and a vision of long protracted struggle for better orientation and more refined differentiation amongst humans in the world they share and picture within language developed and refined within long-term intergenerational social processes<sup>23</sup>.

The magic of nature was not lost to children and they were not easily lost in it. It was some adults who seem to be more prone to getting lost in themselves and their own spiritual struggles in the early processes that conceptualised environmental education as wilderness experiences for/with other individual spirits<sup>24</sup>.

Within the pools of the very same Umgeni Valley the struggle for educational clarity was fiercest and most sustained. This continuing struggle had in fact already started with the departure of Richards to Treverton<sup>25</sup>. The continuing processes of clarity seeking and review also developed as 'other environmental educations' emerged from wider contact and within differing institutional settings.

Despite being somewhat of a closed circle, environmental education in the 1980's appears to have been a small step in the civilising of human kind, the development of education processes

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<sup>23</sup> This picture is constructed with hindsight and the assistance of an Eliasian vantage point. Within the project in the reserve amongst children and teachers the developing spiritualising turn is far from clear. We floundered around for years but a critical questioning of the ideas of recognised authorities in close interaction with observable facts gave rise to more refined notions of teaching and learning processes. These are discussed in the following chapter.

<sup>24</sup> Of note here is how Opie at a workshop in Durban in 1994, amidst dimmed lights, interpreted the writings of children as a finding of spirits and the spiritual when they are creative symbolic speculations in the search of or to stretch their growing symbolic capacities. I always saw multiple interpretations but an emotional reaction amongst adult readers of animistic fantasies in children was interpreted as evidence of an 'earth spirituality' lost towards adulthood. In Eliasian terms this could be the interplaying balance of detachment bringing a cooling view and greater reality congruence within unfettered soarings that are good in themselves, but the key thing is the developing processes within which a balancing interplay develops.

<sup>25</sup> Here although I talk of the departure of Richards it would be a mistake to locate and equate what happened in the people concerned. This is a social process of purging and wiping the slate clean when people move on and new people want to become established. There often is change but the established processes are usually pervasive.

that seek to shape the self amongst others in response to changes within our regional and global surroundings, and our growing understanding of these. We have now moved further along on this journey which has been a somewhat static circulating struggle amongst fascinating images of early people and mother-earth spirits reflected in wilderness in ourselves. We are, however, slowly beginning to look beyond these and the models of nature experience processes of environmental education we created, if a detaching synthesis is not lost in ecstatic visions of wilderness and the uncertainties of pressing risk.

### **viii An Eliasian question reveals an educational wilderness in early models**

By 1982 wilderness education had become environmental education in the Umgeni Valley, and Richards had left to go back to school to do environmental education as 'Environmental Studies Across the Curriculum' because:

*We cannot get away from the fact that mankind is part of the environment. He depends totally on it and at the same time he affects it. By understanding man's use and misuse of the natural and manmade communities in which we live, we can better deal with problems that face us* (Richards In Pratsch (ed) 1982:No page numbers).

Text and textbook reflect a strong conviction that individual awareness comes with individuals writing the text of their ecosystem to guide them. In 1986/87 when I first went to Treverton to conduct an ecology workshop, I could not understand the troubled reaction of Don Richards to a question I posed the children. I asked, "Where would I find ecology if I was looking for it?" They responded, "In nature, all around us." I innocently played a 'think like a martian' game<sup>26</sup> with the pupils, to illustrate that the ideas of ecology are not out there to be discovered in nature but have intergenerationally come to be carried in a developing language that helps us to see and understand our surroundings better, and to do so it is a good idea to go out and see / experience

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<sup>26</sup> The detachment afforded by playing the martian reveals that ecology is not to be found in the surroundings but in the language symbols in books and how symbols come to signify the pattern that connects in the world around us; language, experience imagination and the mediating affirmation of others rubbing shoulders in meaning making interactions.

the real thing.

Don did not invite me back to do any more workshops but little did I know that, at that stage, wilderness education was not able to ask or to answer the Eliasian question: 'Can one conceptualize a state of non-ecology?' The processual supposition here is that to be able to understand ecology we need ways of knowing how it emerged developed within developing processes from a state of not being into states of being within continuing human social process.

It is in this way, following early humans who did not need to see interdependence as ecology, that there developed processes within which there was a growing need to develop symbols for better steering choices within emergent risk. Through intergenerational developing processes humans struggled within pressing risk/need, recently with greater and more urgency, came to develop a better view of the pattern that connects. And, it was within our developing social struggles that we came to develop processes of involvement and detachment which enabled us to see, with greater reality congruence, that which has not been clearly visible in earlier times. The refined orientation and differentiation of the pattern that connects came to be called ecology and to be the embodiment of early environmental education to reshape self amongst others in response to changing surroundings and mounting risk.

I now see that the Eliasian question upset the entire wilderness education applecart right back to its ecologizing of holistic awareness in early humans.

## **ix      Opening up wonder, love and learn environmental education**

From the Umfolozi wilderness and other sites of a developing process of humans coming to see nature and the pattern that connects, there emerged ways of educating others in / about nature for conservation to reduce risk. Broadly speaking the developing processes which clarified the wonder of mother nature at risk, sought change within this experience reflected

within the spontaneous energy and love of children in nature. The emergent social orientation brought into being a vision of a wonder, love and learn process which came to be called environmental education.

Institutional processes shaped this in many developing ways into specialist objective perspectives that sought to create awareness in others or to get across messages to change others so as to reduce developing risk. An open-ended social process of clarifying struggle became an objective model, defined and enacted upon/with others to provide experiences which engineered changed awareness. Some of our early efforts were clearly flawed and the struggle for better ways of doing and seeing environmental education continued in the region, into the 1990's.

One of the pressing risks, the 'dark problem' of education of the 'dark indigenous other' on the periphery and pressing in all around<sup>27</sup>, has hardly been touched on thus far. These others were outside, the distance so great, and the power gradient so steep that it did not become a question of education until the 1960's. Then the issue of black education was to be separate and separately specialised on separate terrains in separate ways. That was the way of things at the time. But processes were changing and all did not see it the same way.

#### **x Unbridgeable distance in early text for Africans**

In the 1960's neighbour control was centred on the struggle to demarcate reserve boundaries and interactions within a long and well established 'educational' process of 'arrest and prosecution.' A developing shift in orientation was apparent when Colonial Vincent, director of the Natal Parks Board, stated at a South African Nature Union Meeting:

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<sup>27</sup> This play on 'dark' is used to convey a distance in apartheid at the time. Others were not only consigned to the periphery but the moral narrative of each to his own and own kind dimension gave a moral tone of 'in the natural course of things, as they should be.' In Eliasian terms the equalising trajectory of developing processes was, within apartheid narratives, developing as an invisible tidal wave beyond the horizon. I struggle for images to articulate this 'handbrake' on an equalising amongst established and outsider inversion.

*Without the education of the blacks, there can be no hope for wildlife conservation. At a meeting of this kind I am more than a little disturbed that there seems to be a reluctance to discuss this particular aspect. Such problems have been so shelved in the past that they are almost beyond solution today<sup>28</sup> (Pringle, 1982:256).*

Within an apparent emerging concern to provide for black visitors and for their education, in 1963 it was announced that first rest camp for blacks would be built in the Huluhluwe / Umfolozi corridor. At the time the idea may have been little more than a strategy to secure conservation control over the corridor. Pringle (1982:259) reports that the announced camp was opened in 1979, after over a decade of delays.

With the reduction of risk and a very slight levelling of the power gradient into the 1970's, the earlier imperative to legislate was displaced by institutional engineering through education intent on creating awareness and changing behaviour to solve developing problems. This change was aided by emergent success stories amongst Wildlife Society members.<sup>29</sup> It is of note that the indigenous 'Zuluness' of the Umfolozi was a compelling passion of the likes of Player, Ntombela and Steele<sup>30</sup>. With the battle for the reserves having being won into the later 1970's small scale and developing processes of conservation education had already been started by Ian Garland under the umbrella of the Wildlife Society.

Not to repeat my self, but to emphasis an earlier point, most of the early conservation education for indigenous peoples was conceived of as a separate issue and to be such a vast undertaking that it had to be done separately in differing ways by others outside of nature reserves. From the Umgeni Valley Joint Venture in the wilderness there emerged a differing narrative spelling

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<sup>28</sup> This was at the time when squatting and mass incursions into the nature reserves were at their height as was the resettlement of indigenous black peoples into proposed independent homelands. The contest in Natal reserves was; at this time, as much with the squatters as with the national administration. This did not occur at an ideological level except in so far as Natal was under the control of the United Party, but was more a contest to physically secure the land for the conservation of wildlife.

<sup>29</sup> There was a very close bond amongst the NPB and WLS at this stage.

<sup>30</sup> See Chapter 6 and the earlier romantic history of the area by Foster (1953). A measure of the strength of this process is that the Natal Parks Board was, into the 1980's, one of the few breeders of the royal, white Nguni cattle.

out how we (they) should see our (the) surroundings, in a story for them (the blacks) and seeking to touch on the important understandings that they need to be aware of in the environment.<sup>31</sup> The story to get the conservation message across to rural blacks starts:

*Mpanga was ten years old. He helped look after his father's cattle. They lived in the country in the mountains, where the land was steep.*

*Mpanga was worried. He saw that his father's cattle were getting thin. And it wasn't even winter.*

*He had seen lately that the grass was getting less and less. The bare patches of earth between the grass were getting bigger and bigger.*

*He saw that there were more and more Harvester termites (the white ants). He knew that they ate a great deal of grass (Richards, 1976b:1).*

A personification of the white ants eating the land might have been truer of the established and developing social conflict for control of the land in southern Africa. In this text one finds conservation education for rural people far away, who through the eyes of those far away need to understand soil and soil erosion, to study water and water life, to learn about soil genesis and soil conservation, to look at plant and animal life, and to get the message about where man is going:

*Once there was a land that went from the mountains down to the sea. ...There was much life for everything had its own place. ...All living things were happy. ...Little brown men lived on beaches lit by the sun, and around the fires in caves. They hunted to eat, and enjoyed the simple pleasures of life. They too were happy.*

*....Then a strange thing happened. Men from other lands came. They brought with them their animals and tools. And they brought with them something called 'progress'. They rolled back the country like a carpet. No longer did forest look down on savanna and grassland. For men had done away with them and the forests.*

*Wire things called 'fences' cut up the land. Animals were trapped and did not know where to go. They fled away to escape, no longer free and happy. ...Large dwelling places ....large towers called 'chimneys' .....Poisons from factories spread throughout the soil, and down the waterways into the clear streams and rivers. All life in them ended.*

*Man made the soil loose to plant crops. ...Chocolate water ran ...There were more and more people, and they spread over the face of the earth. Their main thought was money possessions and using the land as they wished to get what they wanted.*

*.....Happiness ended in the land, for there was no longer any living thing to be happy.*

*Man passed on killed by himself. So did everything there was with him. Now the wind blows over a dusty barren surface with huge empty holes on it. This was*

<sup>31</sup> This text was a shock to me at first. Colleagues with whom I shared my concerns said that it was an insignificant text and that it had hardly been used and had no impact on environmental education. Yet the more I puzzled over it the more important it became as a window on an extreme distance that closed very rapidly within the face-to-face work on the early ACE programme.

*once our beautiful planet Earth. (Richards, 1976:39-41)*

This textbook titled *Man in his surroundings: learning about ecology*, was written for the Chiro Youth Movement, from The Joint Venture, with the assistance of the Natal Parks Board, amongst others, and the South Africa Catholic Bishops Conference. The distance was simply a chasm and the power gradient enormous but the intentions none-the-less noble.

## **xi A movie of wilderness harmonies as ecological curriculum for 'Blacks'**

In a later 1980's movie<sup>32</sup>, also out of the Umfolozi, one finds *Our Wilderness*, with three wall posters and a teacher's handbook. The story here is about a city schoolboy, Conrad Teffo who with game ranger Lazarus Mabela explores the Sycamore Fig tree and wildlife, learning to protect rather than to destroy. Of the resource the handbook states:

*The film "Our Wilderness" creates an opportunity for pupils to participate in an experience which takes place in an unspoilt natural area, the Umfolozi Game Reserve in KwaZulu. Here mammals, birds and insects live in balance with their surroundings; here man is the intruder. After seeing the film and having worked on related subjects pupils should have gained a basic knowledge of the interdependence of soil, plants, animals and man; of ecosystems and food pyramids (Our Wilderness, WLS, Undated:1).*

The interdependence amongst the Wildlife society and the Natal Parks Board is apparent in a ranger on the front cover and a photograph from the Wildlife Society ACE<sup>33</sup> programme on the back. The materials were written for schools and for the school programmes of both organisations but it was at a time when the use of films was decreasing.

The interdependence amongst the developing education figurations is clear but the interesting point is that the nature reserve link and ecological story was the same for all races.

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<sup>32</sup> Sue Hart, author of the school syllabus related materials for the Wildlife Society, outlined a rationale for media at the Skukusa conservation education symposium (WLS, 1976:129-131).

<sup>33</sup> This programme involved Lynn Hurry interacting with Ian Garland and initiating an inservice teacher education programme at Twin Streams, Natal Parks Board Reserves and Umgeni Valley.

Programmes for all races developed with reduced distance and levelling power gradient.

## xii The beginnings of struggle amongst others as brothers

Early on within undifferentiated images of a 'black mass of others' of/at risk that underpinned the large scale targeted programmes that were to emerge within this into the 1980's, were other processes. Across the apparently unbridgeable chasm of an undifferentiated mass of others as threat, there had already been established small scale social processes of others as brothers, friends and neighbours. This was apparent early on in the developing relationship amongst Player and Ntombela which although within clearly defined roles initially, was deepening and equalling in the longer term<sup>34</sup>. Also, the work of Garland and later Hurry, Owen-Smith and Gcumisa were examples of small scale developing processes where practical engagement amongst people at a local level opened up new ways of seeing things and each other<sup>35</sup>. This was also true for development agencies that worked hand-in-hand with local communities on a small scale<sup>36</sup>. Elias points out that it is often in these social situations that profound change takes place and from within them processes flow upward and outward. They are all open-ended, might stutter, falter and fail in many cases but out of them often develop changed orientation that is rapidly picked up within the developing thrust of changing processes on the more broad scale.

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<sup>34</sup> This insight is often beyond people today who have been socialised in a world of objects in the present, experienced as individuals. History thus becomes fact, whereas within and behind this are changing relational dynamics and patterns of interdependence that, as in all social relationships, might work both ways and are to an extent open-ended, especially in the small scale.

<sup>35</sup> See Garland, In WLS, 1976.

<sup>36</sup> See Alcock, 1976 for an example of a small scale church development project. Other example are the Valley Trust Community Health Project in the Valley of a Thousand Hills near Durban and the Nansandhlela Farm Project of the Institute of Natural Resources, University of Natal. These were in the separate field of rural community development that was to enter the environmental education arena into the 1990's. It was at the same time to retain it own identity as the field of community development with its own open ended theories and centres of specialisation.

### xiii A close circle within Inkata youth processes

By the 1980's ACE had been split into a teacher education programme run from Ulundi and a school visits programme at the Umgeni Valley. Into the 1980's Gcumisa reports on the ACE programme at Treverton describing its location within the widening figuration of the Inkata Youth movement:

*The Emandleni - Matleng Camp Project in which the speaker is Camp Commander realises the dire need for environmental conservation education. So is the Commander-in-chief Dr M.G. Buthelezi. Environmental education forms the basis for agricultural education at this camp. It is the Camp Commanders' conviction that training youth in agriculture without first impressing upon them the vitality for caring for natural resources with which they have to work to produce food, is dangerous (Pratsch, 1982: No page numbers).*

Apparent here are new social figurations and a differing narrative on environment. The story of environments beyond nature reserves brought into more central focus the problems in towns and the developing history of the country, changing processes which influenced the clarifying struggles in environmental education into the 1990's. Of note here is the emergence in the national arena of People's Education, a developing story of struggle where, once again, humans, finding themselves subjected to compelling forces in the environment, came to explain these in differing ways within emergent notions of education.

By the late 1980's there was a lesser distinction between programmes for blacks and those for others, particularly in the Umgeni Valley. This was a slow developing process within common sense life experience which had established a habit of difference by race<sup>37</sup>. Also within the bigger picture in education the notion of Christian National Education made clear distinctions between the literacy, perceptions and needs of all of the population groups of the nation, as did developing research in environmental education<sup>38</sup>. This circle of difference continues today as a reality of human life that is slow to change. It is, however, in the institutional sphere that this

<sup>37</sup> Here I do not assume the untenable position of there not being differences amongst and between people. I merely point to how the developing processes have shaped these in fixed and broad categories in the contexts in question here. This was to change and continues to change but experienced differences must remain part of the human condition, and open to change.

<sup>38</sup> See Odendal, 1986 and Opie, 1990 for example.

can become a problem. Here experts seek objective criteria with research of particular kinds to design resources and texts for the environmental education of others, outside, at risk, and clustered in categories of technical difference for differing treatment to create awareness so that they might come to be more controlled<sup>39</sup>. Herein lies the worm in the apple of institutional modernist processes of environmental education. The expert and technical defining of environmental education processes represents a developing processural turn in the story into the 1990's where academic / statutory forces shaped environmental education processes in particular ways. This is examined in the next chapter.

#### xiv Mystifying spiritual circles within an open-ended struggle

Elias enables one to get a sense of the broader picture here. A key process appears to be that risk and the experiences which gave rise to ecological insight, brought with them an acceleration of knowledge and power owing to a high level of reality congruence within developing patterns of involved and detached scientific social processes. This was the case in the Joint Venture and in ACE. Both slowly managed to overcome involved extremes of nature experience and pathologies of othering, shaped within early fantasies and fears, and which receded within developing processes. Of this lag in our understanding of the human level, Elias states:

*At this level of integration, the danger level thus remains very high, reinforcing the already high level of involvement in knowledge, and the consequent actions which in turn tend to aggravate dangers. The circularity is easy enough to observe (Elias, 1987a:lxix-lxx).*

The rapid acceleration of insight into the pattern that connects in nature has not gone hand in hand with the same level of insight into the pattern that connects people within human social process. In seeking to steer towards a better pattern of connectivity, the social processes within

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<sup>39</sup> Here I am thinking of the web of assumed difference, by both cultural setting and for the field of environmental education. Of note is a recent workshop in Mphumalanga that set out to develop objective criteria for the design of environmental education resource materials for rural black people in the region.

which early environmental educators came to be located, shaped the endeavours into spiritualising circles which served to galvanize / hold members within circulating feelings/images of power and idealised fantasies. In this way, environmental education as a loose political sociology in the 1980's was to emerge as diverse, contesting processes into the 1990's, Part Five.

**PART FIVE**  
SOME CLARIFYING  
STRUGGLES



## PART FIVE

### SOME CLARIFYING STRUGGLES

*A education / awareness game essentially emerged within conservation struggles as developing institutional processes of social regulation to reduce human threats to natural ecosystems and life support systems. Environmental education increasingly became a rational process, shaped within institutional settings and amongst widening academic and statutory processes as a developing synthesis emerged into the 1980's. By this stage, the figuration of specialists had little insight into earlier more open-ended and halting struggles as it sought wider recognition and the implementation of environmental education into the 1990's.*

*To see this emergent educational turn within a long-term perspective, it is useful once again to reflect that in earlier times, when the power gradient was very steep, the king would, within tribal consensus, come to what should be done and enforce this with decree, story / mysticism and army. Similarly the authoritative colonial government made, and enforced, game laws within its developing administrative processes. With the power gradient levelling out<sup>1</sup> into this century, education emerged along with laws and law enforcement as institutional civilising process of control to shape developing patterns of social life. Here the old myths receded behind and within a sedimenting tapestry of scientific perspectives within increasingly specialist institutional structures. The activities of specialists in institutions further shaped developing ideas as modernist continuities sought the steering of social life through diverse forms of education.*

*These shifts happened within the trajectory of society as a whole amidst socio-symbolic processes enabling people to look over and out at others in need of awareness and also back on themselves within the developing story. Specialist figurations emerged amidst more strongly felt, more understood, more complex, more ominous and less visible risk. Beck (1992) characterises these processes as a shift to a 'risk society' where within rapid change and high risk there has been a developing reflexivity. Environmental education as reflexive response within emergent risk, was shaped within statutory and academic processes when it emerged as a developing synthesis amidst widening moral imperatives to resolve pressing socio-ecological problems in and around everyday human social life.*

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<sup>1</sup> Elias, 1995 gives an overview of this broad informalisation and levelling of power relations that has come with processural changes this century.

*Elias points out that attendant with changing social processes this century are emancipatory movements shaping small changes in conscious formation where at the level of states:*

*richer countries feel it to be almost a duty to do something about the misery of other human groups.*

*In character he also cautions that within emergent processes:*

*...in actual fact little is done ..The feeling of responsibility which people have for each other is certainly minimal, looked at in absolute terms, but compared with before it has increased (Elias, 1995:27).*

*These wider state and institutional processes make human life today very different to that at the start of this century. Patterns of constraint and control have changed, in / over our physical surroundings, amongst people and institutions and within the self-control of individuals, and these processes continue. As environmental education emerged within increasing risk, levelling of power gradients and widening moral imperatives, so more and more intricate webs of lengthening interdependence are giving rise to continuing processes of change. The next chapters examine the continuing story within an emergent synthesis into the 1980's,*

*Chapter 9 looks at the clarifying of environmental education as a formal institutional concern within developing academic and statutory processes. The developing story is followed in overview to reveal a broad picture for closer scrutiny within three cases examined in more detail in the following chapter.*

*Chapter 10 examines shaping processes and developing orientations within three emergent cases of environmental education; a field centre / resource development project in the 1980's, a national 'earth-love' curriculum into the 1990's and recent research on reserve-neighbour interaction.*

*An Eliasian process perspective is applied with greater detachment and a broader view in the first chapter before the relative fluidity of developing processes is reviewed more closely in the interlinked cases examined in the second. The four papers in the appendices (A-D) are rich in data on these processes and the first two cases. They are also evidence of narrowing oppositional debate and developing political sociologies in/of the times, the earliest lacking in historical and social process perspective.*

*An interpretative narrative is interwoven within firming process images in the widening game. Particular attention is given to relatively blind reshaping struggles amidst rapid levelling of power gradients and a moral turn within individualisation and specialist institutions.*

Some books, journals, policy documents and courses\*



- \* 1. Umgeni Valley poetry, 1977. 2. Treverton Textbook, 1982. 3. NPB Schools pack, 1981. 4. Natal Education Department Journal, 1984. 5. EEASA Journal. 6. EEASA Bulletin. 7. National White Paper, 1989. 8. The Outdoor Classroom, Opie (1989). 9 & 10. Council for the Environment, Core Syllabus, 1993 & Bulletin, 1991. 11 & 12. Environmental Education Policy Initiative texts. 13. WWF Strategy for sustainable living, Yeld (1993). 14. Rhodes-WWF International course, 1995.

## CHAPTER NINE

### Academic and statutory shaping processes<sup>1</sup>

*Soon there will be specialists in all these fields, elaborating their own technical terms, theories and methods which will be inaccessible to nonspecialists<sup>2</sup>. Then they will have achieved the ultimate ideal of professionalism - the absolute autonomy of their own speciality. The fortress will be complete, the drawbridge raised (Elias, 1970:50).*

#### i A process image of the early developing game

A process image of the story of environmental education in eastern southern Africa reveals that early ideas emerged in diverse struggles, developing social processes before, on and reaching out from game reserves. Here humans constructed a new sense of interdependence in nature and were concurrently confronted with escalating risk in and around 'their' protected islands of developing natural wilderness. Within emergent wildlife management institutions, and during

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<sup>1</sup> The emergent axes of tension in the professional shaping of the developing field were not at all obvious as key shaping processes were taken for granted within prevailing continuities. They thus emerged in later discontinuities and the links were not at all obvious. In examining many of the pervasive but less apparent shaping turns I have drawn Bourdieu (1988) and Popkewitz (1991). The 'Homo Academicus' of Bourdieu gave a sensitising overview on the academy, complemented by the socio-historical perspective of Popkewitz and extended into his political sociologies in developing statutory institutional processes. Both of these complement the process sociology view of Elias in state formation and in his work on 'Scientific Establishments' (Elias, 1994 [1939] and 1982). For a broader interpretative view to examine shifting relational dynamics amidst a levelling of power gradients amongst developing emancipatory processes and an accompanying moral turn which has had significant shaping implications in the developing story (Elias, 1995).

<sup>2</sup> This has been a concern to me for some time as I have wrestled with complex language in the field. In this endeavour one can get a reputation for complex language and worrying ideas that make any hope of an advancing engagement with developing ideas fall apart in two ways. One is as Elias sketches and its result is an elevation of status for clever ideas that only a narrow groups of specialists can understand. The other is an engagement beyond the myths with ideas that people cannot believe because their predisposition denies any possibility that the world might not be the wondrous place of their dreams. Professional elevation and pervasive myth make working for clarity in environmental education doubly dangerous.

developing interactions amongst visiting and neighbouring outsiders, they began to construct ways of educating others in natural surroundings to make them aware of ecological interdependence and of pressing socio-ecological problems. In these ways environmental education processes emerged as developing ideas and activities that sought to extend the influence of conservation institutions and to bring about change so as to solve environmental problems.

I have written these sweeping process images for a sensitising overview of the developing trajectory of diverse institutional education enterprises in and around conservation areas in eastern southern Africa. The open-ended and developing images may need to be read more than once for a sense of how diverse notions of environmental education were shaped in differing settings and within a broad institutional trajectory seeking to educate in/about wild nature to solve developing conservation problems in the region.

Seen in the longer-term, the developing education game reflects a shift in processes of social control. Here, institutions have, amidst longer chains of interdependence and a developing scientific view of socio-ecological risk, constructed various forms of education to shape the social orientation and steering choices of others. Within shifting institutional struggles, more detached / reflexive orientations and more reality congruent ecological knowledge slowly displaced the predominantly animistic / mystical orientations in earlier indigenous social figurations. This slow shift emerged as a reorienting break within sustained struggles and with numerous spiritualising turns, within, and accompanying, a levelling of power gradients on a global scale<sup>3</sup>.

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<sup>3</sup> Elias (1995:27) observes how, as the power gradient between stronger and weaker groups decreased on a widening scale within developing emancipatory processes into this century, so more conscious attention was given to environmental problems and there was a reshaping of processes of conscience formation. This sensitising oeuvre on these broad processural change this century casts light on the trajectory of circulating struggles in developing theories of and approaches to environmental education examined in this part of the study.

As we have seen, the idea of education in/about nature for conservation initially emerged in nature reserves and within developing conservation agencies in eastern southern Africa. As it expanded within wider social processes to address emergent socio-ecological risk and interacted with similar ideas developing elsewhere, so it became known as environmental education<sup>4</sup> and developed as an important field within growing global interdependence. In this open-ended way environmental education emerged as a developing institutional response to the Other who needed to be made aware of environmental problems.

In previous chapters we have looked at a wide range of developing institutional ideas for educating and developing others who had come to be seen as a threat / at risk and thus in need of greater awareness so that they might come to change their ways of seeing and doing things in their daily lives (Chapters 6-7). We have also examined a somewhat circular early and developing story of experiential education for children in wild nature. These processes emerged within a nature reserve setting before developing further in an environmental education field centre and concurrently in texts for wider teacher training courses and an early environmental studies curriculum (Chapter 8). There thus emerged a diversity of ideas and a loose figuration of specialists interacting more widely within conservation and education institutions into the 1980's.

A wide range of expanding, diverging and interacting social processes shaped diverse perspectives on how to educate others to make them aware in/of nature, the environment and developing environmental problems. Where the power gradients remained steep, messages from outside tended to predominate<sup>5</sup> but when these were more level, the processes of working things out together were successively more apparent (Chapters 8 & 9). All of these

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<sup>4</sup> The term environmental education was not widely accepted as process reduction and competing figurations sought to establish and maintain professional identity within competing propositions as we have seen earlier.

<sup>5</sup> Despite a broad trend in the mass education of blacks with targeted messages there were numerous small scale social processes out of which, only much later, more cooperative and participatory approaches would develop. Here I am thinking of Ian Garland and ACE as well as the Valley Trust to name just two in the region.

developments gave rise to ideas that were loosely held together as environmental education about and in the environment for conservation into the 1980's, and for change towards more sustainable living into the 1990's.

When the emerging picture is painted in broad, open-ended and developing processural strokes like this, one can achieve a level of detachment that enables a sense of how an environmental education enterprise of increasing diversity emerged within the region, and how institutional struggles for clarity and influence shaped the field into the 1990's.

## ii **Shaping social processes not contesting theories**

The processes of defining and clarifying environmental education have happened in diverse and differing, developing ways worldwide. Here, I will centre my attention in the region, as it looked out on, and drew from, the ideas of environmental education elsewhere in the world, particularly the USA, Europe and later Australia. My concern is not with the usual story of developing world conferences that came to define environmental education, but in noting that these happened, and in exploring some of the shaping influences<sup>6</sup>. Nor am I directly concerned with the circularity within particular and competing theories of environmental education or their respective merits, except in so far as noting developing trends and that South African authors borrowed from, and translated, many outside ideas into their own regional and institutional contexts<sup>7</sup>.

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<sup>6</sup> Developing international perspectives are to be found in every study in the field over the last few years, as the academy and its works talk to each other to define and polish up developing ideas.

<sup>7</sup> These borrowings were not always acknowledged so the ideas appeared to originate on the South African landscape contributing to the developing power of individuals and institutions. The prevailing view was that what was outside was not appropriate to South Africa so there was a significant search for something unique to the region. International partnerships did, however, contribute to developing power and ascendancy of institutions and individuals. This I note as part of the processes of human existence and do not concern myself with the details and relative merits of particular individuals or institutional positions. For a detailed account of the shifting landscape of this story see Janse van Rensburg, 1995.

My central concern is how within these developing processes, the construction of environmental education as a defined field came to be **seen, taught and practised** in particular ways. Thus far attention has been given to how emergent institutional perspectives and approaches to environmental education developed within earlier social processes of grounded struggle and change in contexts of developing risk. The processes examined here are a continuing development of educational enterprises in, about and for the environment, an emergent diversity of institutional processes of social control shaped and mediated within the prevailing conventions of academy and state.

These advancing processes were, simply stated, the **defining** of the game within a story, its **origins** and the **research conventions** of the times, all of which shaped the developing field into the 1990's. In this chapter I overview the broad and developing thrusts of key shaping turns within intermeshed academic and statutory shaping processes.

This story casts light on the emergence of contesting perspectives in a developing game of education to reshape the fabric of social controls so as to avert developing socio-ecological risk. Somewhat ironically, academic and statutory social processes were to create an abstracted field that was to become the contesting arena of diverse political sociologies, seeking to monopolise the right to draw the maps amongst / for others. These reshaping struggles seen within a levelling of the power gradient, reveal that a developing moral turn seeking the equalling of power amongst 'others as brothers' (no longer target groups) may have been at the root of many of the developing axes of tension and a wide-ranging reshaping in a changing game into the 1990's. Within this, previous continuities which had shaped distant, 'top-down' intervention strategies came to be seen as oppressive and intrusive in unacceptable ways. They were thus discarded and/or reshaped within emergent institutional discontinuities in a continuing game where new discourses of participation emerged within the debris of an earlier capital of 'top-down' institutional models of process. Many of these developing struggles are

further examined in three cases as these emerged within the region, reaching into the southern African arena as a whole, and carrying increasingly contested propositions into an expanding game in the present (Chapter 10).

### **iii Academic and statutory shaping processes**

In this chapter I propose to look at the continuing story of environmental education in the region with close attention to how developing ideas were further shaped in particular ways within academic and statutory processes in eastern southern Africa<sup>8</sup>.

Broadly speaking, as we have already seen, environmental education emerged as processes of social control within increasingly specialised conservation science institutions, with developing monopolies on differing aspect of social life, as these emerged amongst advancing chains of interdependence on a regional and global scale. By approaching an interpretative exploration of the 1990's clarifying struggles in environmental education within a process perspective, I wish to examine how earlier processes of nature experience / wilderness education were picked up and mediated into particular orientations within wider institutional social processes into the 1990's.

Of course, a shaping mediation had already happened from early on when game rangers, scientists and others superimposed their developing images of nature on ways of educating humans. In so doing, they saw other humans through the eyes of their detached institutional

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<sup>8</sup> These developing pictures resonate within broader trends of process reduction and objective mediation by the physical sciences and philosophy and a levelling of power gradients within which environmental education as delivery of information from above to target groups of others is being reformulated as critical social processes of meaning making and change amongst others. Other issues that I had in mind were an increasing global connectivity and the political isolation from wider world communities in support of the anti-apartheid struggle.

world of clarifying, rational processes and objects. This shaped an orientation that reduced process to fixed structures and objects. This emergent perspective sought images of things unchanging with fixed origins. It also used dialectic processes to argue amongst defined differences and objective structure and function; subject / object, nature / people and media / messages for example (Chapter 7). This developing objective legacy amongst defined opposites was carried, along with a good measure of spiritual mysticism, within the developing perspectives of early environmental education, becoming more distant and instrumental within institutional processes, as we have seen in Chapter 8. Commenting on globalising processes of environmental education Robottom (1993) refers to these trends as a technocratic rationality prevalent in developing international structures despite being remarked upon as early as 1977 in UNESCO publications. Institutional technicism was to develop as an axis of tension within socially critical shifts into the 1990's

The story examined in this chapter is how a developing synthesis came to be established on the academic and statutory terrains as particular ways of teaching others; theories for practice<sup>9</sup> in diverse community and school contexts as environmental education for social change. This happened within continuing developing processes reflected in the trajectory of discourse and clarifying debate at conferences within and around a social figuration of emergent specialist environmental educators.

#### **iv Early conferences shaping the developing synthesis**

Early on in the developing game we had education initially seeking awareness to protect wildlife and wild areas, but rapidly developing into a widening concern for the wise use of all

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<sup>9</sup> Janse van Rensburg (1995) identifies a theory practice divide, an issue often discussed in environmental education circles. This often appears as 'I am a practitioner and all of this is too theoretical for me' or 'Theoretically it is all well and good but it is not practical,' and even 'What is done has little correspondence with the theory espoused.'

natural resources<sup>10</sup>. These concerns were echoed in conservation Education symposia in Skukuza in 1976 and in a Council for the Habitat conference in Stellenbosch in 1977<sup>11</sup>.

By 1980 the established institutions of formal education had responded with a national conference on Outdoor Education<sup>12</sup>. At this 'Pretoria conference' the issue was ensuring that things educational were kept 'good and clean and fresh'<sup>13</sup> within prevailing Christian National Education perspectives. The 'good' was advancing the idea of looking after the environment as a question of Christian duty<sup>14</sup>, the 'clean' seeing the environment as ideology free, physical surroundings, and the 'fresh,' optimising the excitement and wonder of children in the outdoor classroom, becoming aware in/of nature / problems and reshaping their values for life in a more sustainable nation. The concern for using nature's outdoor classroom for awareness in/of the environment as an apolitical (ideology free) issue was to remain a passionate orientation in formal education institutions within apartheid times.

In part, as a reaction to the steamroller of government machinery of the times, but in the main as an opportunistic venture within a growing regional enthusiasm for environmental education, the Treverton conference was held two years later<sup>15</sup>. Here environmental education was spelled out in more open-ended and international terms<sup>16</sup>, and the Environmental Education Association of Southern Africa was constituted.

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<sup>10</sup> This has recently further advanced to a concern for sustainable living within socio-ecological systems and processes but as yet there is no firm grasp of what this is.

<sup>11</sup> Both of these were outside the region but the stories of the Wildlife Society, Natal Parks Board and Wilderness Leadership School had significant prominence in both cases.

<sup>12</sup> Millar, 1980.

<sup>13</sup> These are my interpretative words to capture an enthusiastic reserve on a terrain of central control within contested political terrain of education in the country at the time.

<sup>14</sup> See Clayton, 1980 & 1982.

<sup>15</sup> The Treverton conference was equally good and clean and fresh with a strong liberal Christian education ring to it.

<sup>16</sup> Kirk, USA; Parker, Zimbabwe; Stapp, USA; Seddon, Australia, In Pratsch, 1982.

## v      **Developing professional processes of social control**

The meshing of people into a social figuration of specialists was preceded by, and continued hand in hand with, a synthesis of developing institutional perspectives. Here people on the outside looking in on and seeking to influence others, found in schooling a legitimating synthesis for developing institutional social function and engineering struggles to maintain influence over their specialist concerns for the common good.

This is a key point reflected in an infectious enthusiasm for education in Natal Parks Board reports<sup>17</sup> and in the burst of energetic activity leading up to and following Treverton. Notable developments were an environmental education coordinating group for Natal<sup>18</sup> and the convening of the Midmar workshop some two years later by the Council for the Environment.

Complementing Eliasian insight into changing power relations and a developing moral turn, Popkewitz (1991) on shaping processes within education institutions in the USA reports:

*The new professionalism contains elements of religious commitment and nationalism reminiscent of the late 19th century, but these assumptions of values exist in a differing configuration of moral, ethical and political relations (Popkewitz, 1991:117).*

Similar political sociologies<sup>19</sup> were emergent within a professional figuration of environmental educators in the region into the 1990's. Institutions which, within earlier processes, had developed detached orientations looking in on communities of others, emerged as a political force outside and seeking to change others (Part Three). Here the developing figurations of

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<sup>17</sup> NPB, Annual Report, 1981/82:47 for example.

<sup>18</sup> This produced a poster on field-study sites and a 'Field Studies Guide' (Van den Berg, 1982). The Natal Parks Board (1981) conservation packs for scholars and numerous field worksheets on coastal and inland ecosystems were developed in cooperative projects with the Natal Education Department, Wildlife Society and universities.

<sup>19</sup> This term used by Popkewitz (1991) is a useful sensitising concept for examining developing education processes in terms of emergent power relations and social processes.

professionals came to know more and better than others,<sup>20</sup> the benefit of a removed vantage point enabling a detached grasp of problems, not necessarily apparent within communities involved in the struggles of daily life. These developing processes contributed to the shaping of an imperative to educate (Chapter 6). Into the 1980's the image of education and a curriculum enacted to change children became a mirror in which institutional specialists came to see themselves over others as benevolent dispensers of information and givers of experiences to make people aware so that there might be change for the better on a wide scale<sup>21</sup>.

Environmental education took the struggle with others to a new level of synthesis where the institution was not only removed to administer over others and came to know more, but also developed a vision for its new enterprise as an instrument to put right what was going wrong. In environmental education the conservation institutions developed a loosely shared vision for a web of complementary professional enterprises, planning and coordinating the doing of things educational to/with others to bring about change to reduce risk. In their doing so, the processes of struggle amongst others were wrested out of the hands of the people involved in them and into the developing institutions of professionals who, with the detachment of looking in on others, were firmly established as knowing more and better.

Environmental education by many names became a developing structure in professional functions within both conservation and formal education institutional settings. The institutional processes of 'knowing better than,' came through detached experience clarified in abstraction and talk with fellow professionals (Chapter 7). Within these developing processes, institutional experts came to construct how to make people know what was known in the institution, thus seeking to extend their influence and to create change for the better in the everyday lives of others.

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<sup>20</sup> This had already happened as early as the scientific discovery of the cause of Nagana.

<sup>21</sup> Here I do not suggest that this had not happened before but that environmental education became a symbol clarifying processes of struggle and engineering in an unknown quest to deal with the people and problems that pressed in on the nature reserves and the future sustainability of the country.

I have written this open developing synthesis in a cycling processural image for a sense of some of the interacting processes within which professionals came to shape the environmental education enterprise(s) towards what we know it (them) to be today. A sense of an open developing field did not suddenly appear at Treverton but had been developing within the earlier twists and turns of widening social processes which shaped institutions and others. In situations of developing risk, simply stated, detached institutions became instruments to educate others in differing ways from outside about what was wrong inside and around.

#### vi From processes to object by playing the academic game

It was within early conservation institutional contexts, and within developing academic and statutory processes, that environmental education emerged on the landscape in eastern southern Africa, as a new field within a social figuration of aspiring specialists with developing education stories that needed to be clarified for its recognition as a national priority<sup>22</sup>. For this to happen, the new field<sup>23</sup> had to be clarified within the rules of the games that were applied in universities and in statutory processes. The clarification and recognition of environmental education was to be a long struggle. Developing academic processes sought a clear definition, to clarify its origin and a researched coherence to establish its legitimacy and importance as a field of concern within emergent state institutional processes of social control. Popkewitz interprets some of the implications of a professional defining of an educational game when he illustrates that:

*The professionalisation of knowledge contained technologies that made the intentions of the person (communities) subject to scrutiny and supervision. As part of those arrangements the social sciences have developed a rhetoric of persuasion about structures and power (Popkewitz, 1991: 102).*

<sup>22</sup> Two years later Fuggle convened the Midmar workshop under the auspices of the interim education committee of the Council for the Environment. He tabled an impressive document (Council for the Environment, 1984) with 143 pages of southern African and International perspectives on definitions, goals, principles and scope of environmental education for formal education, government agencies and groups working outside government.

<sup>23</sup> This transformation of process to object is so common and taken for granted that it escapes our notice.

Amidst shaping processes of institutionalisation in a conservation agency (Chapter 7) and a field centre (Chapter 8), and a developing professionalisation as a specialist field into the 1980's, environmental education became a scientific synthesis for fostering awareness and behaviour change through nature experience and persuasive social intervention to change 'target groups of others.' Within developing statutory and academic processes, the figurations of people involved were blind to earlier shaping struggles around reserves (Part Three). The continuing development of environmental education as a specialist, rational field of scientific objectivity and spiritual holism emerged within relatively blind processes as it had earlier on. An increasing power and appeal were the ecstasies of nature's interdependence and an escalating hegemonical fever associated with increasing risk (ecological, social and global), as these were seen (and changed) amongst the institutions and people intermeshed in the developing field.

Within the trajectories of emergent institutional and academic narratives, environmental education developed as increasingly diverse amalgams of scientific objective, spiritual nature endeavour, and later, moral and socially critical imperatives to address regional / global ecological and social catastrophe. These shaping themes / discourses of struggle, are interwoven within environmental education models of process expressed in publications, at conferences, in conservation and educational institution policies and within state regulations, and these continue developing and shifting within the changing processes of the day<sup>24</sup>. To get a sense of an early synthesis and developing orientations in the region, I will briefly look at **how environmental education came to be defined and professed** early on. I then trace how the field developed amidst a **state white paper** and academic objectifications that shaped developing continuities and discontinuities amidst widening patterns of risk and a rapid

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<sup>24</sup> Janse van Rensburg (1995:1) in examining *institutional views on research, environmental education change and research priorities*. ...identified three orientations - *research for Management to Restore Order to Nature and Society, Research to resolve Practitioners' and Communities' Problems, and research for Radical Reconstruction*.

levelling of the power gradient into the 1990's.

### vii Institutional ground rules shape a new thing in itself

In the defining of environmental education, diverse processes of struggle within developing feelings of risk, gave rise to a sense of a thing, a unitary field of objective and instrumental concepts, which in endeavouring to span, draw together and to permeate existing fields, also sought status and identity, reflected in those who did it as a developing profession. Here the new field of education was playing the game within the prevailing modernist institutional social orientations and the long established philosophical conventions of the academic terrain. To pass the scrutiny of bureaucrat / philosophers and to achieve social status so as to enter the academy, the developing idea and models of process had to be defined as a separate field with clear concepts and a history from whence it originated.

This did not simply happen in the region or flow from the Treverton conference but was a long open-ended struggle. The defining had started in earlier conferences<sup>25</sup> and was meshed / contrasted with international sources<sup>26</sup> of the definition and developing picture (history) of environmental education. These processes established ways of looking at where and how environmental education happened<sup>27</sup>, with research on states of awareness<sup>28</sup> being signified as a conceptual benchmark and studies on these measurable states and patterns of provision in schools,<sup>29</sup> opening up a terrain for professional attention. All of these processes served to

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<sup>25</sup> Skukusa on *conservation education* (WLS, 1976), Stellenbosch on *African environmental awareness* (Mdluli, 1977) and Pretoria on *outdoor education* (Millar, 1980) being key examples of developing and contesting perspectives.

<sup>26</sup> IUCN, 1980; UNESCO - UNEP, 1976 & 1978.

<sup>27</sup> Richards; Dieperveen; Nightingale; In Pratsch, 1982.

<sup>28</sup> Keogh In Pratsch, 1982; Irwin (1982a).

<sup>29</sup> Hurry, In Pratsch, 1982.

shape the importance of, and directions in, the developing field<sup>30</sup>.

In synthesis, therefore, early small-scale initiatives and contact with developing international perspectives interacted to develop an imperative for a new educational game<sup>31</sup> to reduce escalating environmental problems. Prevailing institutional perspectives and an accompanying 'hegemonical fever' around environmental problems gave impetus to clarifying interactions and research on states of awareness. The results were set against developing risk and patterns of education provision in schools and other institutions. These processes shaped the development of field centres in nature reserves, the expansion of community extension / awareness programmes and successively wider patterns of environmental education provision. As the new field developed so did further school, community and visitor facilities, teacher training programmes, resource materials and curriculum projects into the 1990's. An understanding of these interacting trajectories is revealed within defining processes that shaped the game in the region and beyond.

## viii Mapping a shared territory of endeavour

At Treverton, sweeping world definitions came to give participants a sense that they were

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<sup>30</sup> Key examples here were the Umfolozi Wilderness / Umgeni Valley Project / Treverton curriculum example already examined in the previous chapter and numerous southern African and international examples that these had drawn from and contributed to in over a decade of developing interaction. These are reflected in the Skukuza, Stellenbosch, Pretoria and Treverton conferences as well as in the Midmar workshop documents of the Council for the Environment. The key point here is that as processes developed the impetus to educate was mediated as an object of specialism with identity and status within the structures and functions of the institutions. Developing processes within state, with its policies, and academy with the mediating power of its philosophical conventions shaped the story in particular ways. Processes of clarifying risk became objects of social control.

<sup>31</sup> In looking at the developing game I have examined the writings of key players who worked to define the new field in the region and beyond. In doing so, I was not concerned with the individuals but with how their works reflected developing processes. It is of note that Fuggle grew up with intimate contact with Zululand game reserves, Irwin taught and researched in Natal, with an intense interest in the Drakenberg reserves, and Hurry was a lecturer in Eshowe active in initiating of the ACE programme. All are geographers and had close contact with the Umgeni Valley Project and the Natal Parks Board.

engaged in a coherent, but open-ended and developing, scientific educational enterprise<sup>32</sup>. This resonated within a relational diagram of the developing field which mapped out how environmental education occupied particular space within the education/recreation enterprises in relation to conservation and outdoor education<sup>33</sup>. World definings and this spatial map were complemented with research<sup>34</sup> and practical examples of working curricula,<sup>35</sup> giving rise to a sense of identity that intersected and crystallised within the formation of a specialist social figuration, the Environmental Education Association of Southern Africa (EEASA).

Treverton is an example of how a regional conference served to carry forward defining processes in a particular direction within the prevailing institutional settings. Looking back in the study it is possible to see how earlier shaping processes were beyond the view of a profession interacting in an emergent territory of objects defined within prevailing conventions and continuities as principles and methods / techniques for education / communication / development.

Two shifts in developing processes were most apparent to me. First is little sense of the historical struggles on reserves where scientific detachment gave rise to knowledge with greater reality congruence. Second was how as more reality congruent knowledge developed within expert institutional settings, along with greater concern for and insight into socio-ecological problems, developing institutions of experts shaped the field within prevailing social continuities and scientific research conventions. It was within webs of processes such as these that diverse conservation, development and education institutions, within the modernist apartheid state, came increasingly to call on an amalgam of experts, research, education and science for the solution to all of its socio-ecological ills<sup>36</sup>. During the hopeful, heady days of

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<sup>32</sup> Fuggle In Pratsch, 1982.

<sup>33</sup> Irwin In Pratsch, 1982.

<sup>34</sup> Hurry; Keogh; In Pratsch, 1982.

<sup>35</sup> Parker; Richards; Stapp; and numerous other teachers in Pratsch, 1982.

<sup>36</sup> See Janse van Rensburg, 1995:1. The same is true of the current state as past and new institutions struggle to reshape themselves to the new rules of the developing game.

environmental education in the mid 1980's a synthesis of early diverse perspectives were loosely held together in a shared spiritual imperative for a new holistic and more relevant education to change the world.

## **ix A new field with clear origins and policy**

Within the new association (EEASA), professionals working within the field developed a picture of environmental education and constructed a story of its origins<sup>37</sup>. As this emerged, the Council for the Environment sought a National Policy on Environmental Education and a workshop was convened at Midmar Dam in the region. This process looked at the national sphere, drawing in developing perspectives from all the other regions and blending these within the emergent global story of definitions and principles. Despite the symbolic power of this synthesis, the government institutions of the time picked at and wrestled with the document to produce a somewhat bland, but explicit, White Paper on Environmental Education some five years later in 1989.

The key idea to emerge within these intermeshed academic and statutory processes, reflected at the annual workshops of a developing association of professionals, is a sense of environmental education as a defined field of endeavour, initiated within diverse institutions to solve the environmental crisis. Within these processes, environmental education came to be seen in unitary and static terms as a thing (field) that had developed in history and was done to / amongst others and in specified ways to foster change; stories scripted in institutional settings within objective dispositions to shape / control the awareness and behaviour of others to their view from above, outside.

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<sup>37</sup> Irwin, 1982b, 1984, 1988 & 1991.

Here environmental education became a **thing quite separate** from the intermeshed networks people form with each other. It did not initially develop an open process character of grounded struggle, but was seen as an objective amalgam that promised relief from risk, a rational field where institutional insiders sought to get the outsiders into the natural environment to learn about its problems and to attain a new state of awareness so as to create a more sustainable world.

This is neither a trivial nor a flippant point, as it reveals a reshaping of social controls within developing institutions outside the social space of everyday life. The most powerful forms of rational symbolic violence to effect and sustain these modernist instrumental shifts were, paradoxically, both a spiritualisation and scientisation of nature and people<sup>38</sup>. Environmental education was shaped around the spirit of mother earth and the science of ecology, as we have already seen.

Institutional processes which shaped an objective correspondence between environment and education emerged as/in the developing field. This sought to maintain its shifting synthesis of objects and spirits for effecting social control amidst the tensions of more clearly understood problems and against increasingly pressing and seemingly insurmountable risk. These processes appear to have developed in two ways in institutional contexts. On the one hand the new idea of environmental education signified and gave identify to those who did it and came to know about the 'new thing(s).' On the other hand, it became institutionally held and removed from the networks of peoples to whom it referred. In this way early processes of institutional environmental education created and maintained the 'Other' outside a figuration of increasingly

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<sup>38</sup> A similar strategy of spiritualisation is found by Elias within the church in the middle ages. Science was in a similar way the mystifying object of social control in the modernising trajectory of society this century. Institutional environmental education was to hold one in each hand as it set out to crack the whip of social change within a mix of recipes that emerged into the 1990's.

'expert-others' looking in at 'target communities of others.'

This is how the emergent institutional social figuration came to shape others as 'target groups' (outside) as recipients of messages and/or facilitation<sup>39</sup>. Within these developing processes in the social figuration, the institutional other, as expert, struggled within the trajectory of the discourse to clarify and sustain a conceptual power-base of symbols that lent convincing clarity to the enterprise as it rolled on. Paradox was to be revealed / develop within a levelling of the power gradient in emergent contests amongst 'earth-love spirits,' rationalist development perspectives, and various amalgams of these into the 1990's.

## **xi A relatively blind shaping struggle**

The 'institutional symbol game' to define the field has been a key feature in environmental education and a source of ongoing debate. Early on, most of the overt defining efforts referred to the Tbilisi Principles, and the developing debate was for many years on how one definition was better, or more correct, than another<sup>40</sup>. It was within these processes that the objective game came to have a clear life of its own with specialist knowledge necessary for doing it<sup>41</sup>. Initially and throughout the developing processes a sense of emergent problems within the defining field was lost in a shared 'spiritual holism' that shaped a 'broad ideal of us' obscuring

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<sup>39</sup> A rapid shift from 'messaging' to facilitation processes came with social change into the 1990's. Of note is a research project which, in this period of transition, shifted between notions of conservation extension interactions on / amongst communities of others (outsider perspective) and the idea of interactions within a community of co-management, the developing ideal for a new educative process to achieve sustainable living within lost indigenous knowledge systems. This is examined in more detail in the next chapter.

<sup>40</sup> It is of note that none of these initially defined the contexts of environmental degradation in historical or sociopolitical terms (This was to come later) or involved or in any way deferred to those immersed in the risk situations as a source of knowing or shaping of definitional orientation. This was also to come later and to take many contrasting forms. This was to be followed by an open acknowledgement of different horses for differing courses as a liberal education philosophical framework sought to mediate difference and retain control in the academy.

<sup>41</sup> Elias, 1970:85.

the distance of an underpinning 'othering.' This ideal of holism, ascribed to Jan Smuts, served to hold together small sub-cultures of unitary spirit engaged, with 'religious' passion, in the experiential converting of others to a noble and necessary cause. Elias sheds some light on this problem of a short-sighted vision of the processes enveloping us when he states:

*a game process, which comes about entirely as the result of the individual interweaving of the moves of many players, takes a course which none of the individual players has planned, determined or anticipated (Elias, 1970:95).*

This insight into relatively blind processes shaping institutional and academic objects, reveals environmental education as a somewhat rudderless ship. Today, a sense of relatively blind early shaping processes is often beyond historical and socially critical analysis that place a rational hand behind all developing processes. Into the 1990's people working within environmental education had lost sight of earlier open-ended shaping processes. Contested orientations and developing axes of tension in the field came to be ascribed to contesting personalities or to be located in competing institutions upon an increasingly diverse professional terrain<sup>42</sup>.

## **xii Developing tensions and reshaping challenges**

On the surface and early on, the new field had a developing coherence, but within and around clarifying debate were escalating tensions and processural change that were to reshape the endeavour<sup>43</sup>. For example, the expert and outside orientation brought developing tensions

<sup>42</sup> Janse van Rensburg (1995) reports this tendency to ascribe contesting perspectives to individuals and amongst geographically located approaches.

<sup>43</sup> The Appendices (A-D) contains the four 'lead-in' papers that preceded this study. Appendix A is a clarifying rhetoric on environment / development education and Appendix B is a responsive engagement with the value claims of earth-love education. They reflect current issues much of the clarifying argument being developed in oppositional terms. Both contain data on developing issues and are sources of narrative evidence. Appendix C reflects a developing secondary involvement in indigenous

within the way things are seen and talked about in institutions as wide ranging social processes of political change enveloped the region. The early notion of the environment as degrading natural ecosystems came into tension with the observation that developing risk might better be seen as interacting political, social, economic and biophysical processes,<sup>44</sup> shaping problems over time.

Prior to these clarifying contestations, however, an earlier loose conceptual solidarity had already begun to falter. This happened when nature experience approaches did not deliver the change that had been expected of them, and as developing perspectives took 'spiritualising turns'<sup>45</sup> that were not easily reconciled within prevailing institutional processes. Somewhat ironically, critical processes in response to these apparent failings, and a lack of objective evaluation, did not penetrate to a review of the rationalist and outsider orientations in the field as a whole<sup>46</sup>. This questioning was only to emerge later within rapid socio-political change when target groups were increasingly talked of as participating communities.

### **xiii Rationalist backlash of tighter control and new names**

Similar questions of 'delivery failure' in extension programmes of targeted communication led to a processural shift that sought to enhance interventions through increased rigour and evaluation, both deemed to be more professional and scientific. There thus emerged a shifting

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harmonies and Appendix D some of the more intangible shaping processes that were entering my field of vision within a developing Eliasian oeuvre.

<sup>44</sup> O'Donoghue, 1987e.

<sup>45</sup> Here I am thinking of Jungian 'dream and collective unconscious spiritualising' as well as 'mother-earth' and 'encountering God or a personal saviour in the wilderness,' developing processes within the wilderness trails movement and some environmental education centres.

<sup>46</sup> Popkewitz (1991:218) describes how in developing institutional settings in the United States people similarly, '*placed priority on questioning the procedures rather than the rationality of science itself, accepting uncritically their role of explaining and reformulating the world.*' In effect, however, an apparent situation of uncritical choice is more a orientation shaped within developing institutional social processes. Only later, a critical reflexivity borne of processural change might come to question earlier and developing uncritical predispositions.

struggle amongst experiential orientations that lacked the scientific substance and structure to cause suitable conservation awareness and behaviour change,<sup>47</sup> and more structuralist notions of coordinated extension. Within this shift, scientists and administrators sought to tighten up extension structures and communication functions of intervention<sup>48</sup>. These intensifying and circulating, clarifying struggles were locked into an involved engagement with objective symbols and had little sight of the political sociologies that emerged between institutions contesting for the socio-symbolic control of social space with their respective conceptual maps<sup>49</sup>.

The developing crisis deepened in state institutions as environmental education began not only to reveal alarming conceptual and performance deficiencies, but also worrying political orientations that challenged the statutory frameworks of the apartheid state. In the mid 1980's, for example, the idea of environmental education was displaced with the notion of 'environmental awareness' in the Natal Parks Board and the earlier notion of extension was developed as 'coordinated extension.' Around these developing institutional struggles, continuing radical shifts began politicising the environment and criticising state top-down policies and community development processes. These tensions fuelled internal, clarifying struggles, within which those involved had little sight of these tensions, having developed within a broad levelling of the power gradient and sociopolitical processes of change that were to popularise a new rhetoric locating all developing environmental problems in the apartheid system<sup>50</sup>. Here the developing field was stuck within the objects of its own creation, and process reducing struggles amongst oppositions in the present as personalities and interest

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<sup>47</sup> The Centre for Scientific and Industrial Research (CSIR) 'Conservation Behaviour' programme is an example of an attempt to conceptualize the enterprise in a more systematic and scientific manner (Ferrar, 1983).

<sup>48</sup> Robottom, 1993 refers to similar technocratic institutional processes in global environmental agencies.

<sup>49</sup> A case revealing these developing processes is examined in the next chapter.

<sup>50</sup> This is to be found as a developing process both within environmental education itself and in its rubbing shoulders within the people's Education movement, a broad popular reaction that took on the name of a 'movement' but was never explicit despite the efforts of some academics, politicians and legislators to mobilise and interact with it.

groups ascribing to particular perspectives sought to clarify ideas and to maintain an earlier or developing ascendancy. A curriculum development project revealing some of these processes is included in the next chapter.

#### **xiv Circular clarifying struggles amongst detached abstractions**

In the mid 1980's clarifying institutional struggles and escalating risk gave rise to a lot of talk and worry (hegemonical fever<sup>51</sup>) calling for more objective intervention. Ironically, into the 1990's this trend receded within a rapid levelling of the power gradient as a co-shaping and participatory rhetoric emerged. Within these shifting struggles, a fever of words developing one approach / theory over another reflects a significant processual shift into a discourse of detached objective models of process. This contrasts with earlier processual struggles where the feverish words were amongst people experiencing declining environmental quality in the conservation struggles of everyday life (Chapter 6).

Developing academic processes shaped dialectic research which emerged as a systematising narrative to clarify better models of process. These located and shifted power and influence amongst distant professionals in institutions bound within rational and spiritual narratives of processes seeking to shape conservation / development for more sustainable living. This led to further shifts within which institutions began to seek influence and power within their researched narratives<sup>52</sup>. Features of these circulating struggles amongst interests, attachments and other abstracted webs of developing feelings and myth are apparent within modernist

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<sup>51</sup> Mennell (1994:219) uses this term referring to the struggles amongst the great powers, developed in Elias (1985). Although Elias uses it to refer to the arms race the sensitising concept is useful for capturing the intensity of struggles within escalating socio-ecological risk. When I found strong feelings and words in developing axes of tension these were usually accompanied by a spiritualising shift into a rhetoric of dreams in wilderness or of mother earth and indigenous wisdom, or more recently diverse amalgams of these.

<sup>52</sup> An examples of a developing political sociology intent on a reshaping of conservation institutions in the region is examined in the next chapter.

processural continuities and discontinuities<sup>53</sup> in wider social processes shaping the developing story.

## xv **Modernist continuism and developing contestation**

From early on, what seems to have happened amongst conservation institutions interacting within the social orientations and struggles of the time, is that developing discourses of environmental education exhibited a latent **continuism**. This was initially located within the historical experience of the disappearance of wildlife and wilderness, giving shape to ideas that sought to create awareness and to extend the influence of the conservation organisation. One thus gets nature experience approaches and the communication of conservation extension seeking to 'convince with experience and to inform with messages.' The developing processes of environmental education have an orientation that seeks to restore nature and to maintain the institutional status quo (continuism).

Developing social orientation within processes of continuism and discontinuism are significant because when groups only see / seek the former, a conservatism prevails to maintain continuities, whereas the latter is more latently critical and might be disruptive of these in useful ways. The key to a better understanding of the developing story of environmental education seems to be examining the balance amongst these processes in diverse contestation within emergent axes of tension and processural change in a rapid levelling of power gradients during accelerated socio-political change in the region.

Into the 1990's experiential and extension perspectives came to be seen as opposites. Spirit laden nature experience conventions developed an open and freeing orientation against conservation information that was seen as 'top-down' and oppressive within individualising

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<sup>53</sup> A sensitising orientation to these developing processes was derived from Kilminster, 1991:103-105.

processes, and a levelling of the power gradient into the 1990's. An ironic issue here is that experiential processes remained an outside orientation (above) and thus retained a continuism, insulated from, but not intolerant of, developing socially critical environmental education.

By the late 1980's and into the 1990's a clear discontinuity developed, shaping and popularising socially critical 'action research' perspectives. These fairly recent developing processes emerged as apparent discourses of discontinuism, retaining an institutional detachment, and articulating new notions of facilitation and empowerment. The new process had all the appearances of a radical shift accompanying wide ranging change in the region but was initially little more than a responsive discursive shift. This took an institutional form resembling an unsettled modernist conscience struggling with itself but unable to shed its rationalist foundations. It thus sought to empower and to emancipate others within images of sustainable harmonies. Initially, the developing processes were little different and no less intervening than the institutional perspectives it sought to displace. If anything, the apparent moral turn may have a lesser capacity for adjustment as its strong imperatives to facilitate change within detached, rational images that sought to enable the realising of its utopian dreams of emancipation and harmony. The critical spirit was less sensitive to, and unsettled by, contestation and rejection by what it identified as oppressors and yet blind amongst those it sought to emancipate. Ironically, after years of experience in top-down development processes communities critical spirits sought to empower were highly skilled at exploiting any partnership (top-down or facilitatory) through which they might benefit.

My intention in critically exploring these developing processes is not to criticise emergent socially critical processes, but to locate it amongst other developing perspectives as an institutional process of intervening social control. In the company of more conservative orientations it seeks to displace, it is not only similar but more of an external intrusion, despite being dressed up as coming from the people. One must thus question the early socially critical turn and scrutinise its claim to locate reshaping social processes in clarifying struggles so that

people experiencing the problems foster a reshaping of self and social control in surroundings, within a grounded and more reality congruent symbolic capital for steering choices in the contexts of everyday life.

The emergence of socially critical struggles developed into the 1990's within a shifting interplay amongst institutional continuism and developing discourses of discontinuism amidst rapid social change in the region. Key processes supporting this apparent shift were an attempted synthesis of conservation and development within globalising processes seeking to foster environment and development education. The new people-centred discourse was accompanied by the prospect of donor funding and international partnership links for agencies with facilitation / participatory orientations. This brought a surge in non-government organisations (NGO's) that increasingly sought to develop 'community-based' postures (CBO's) when, amidst developing trust, donors sought to get project money more directly into the hands of previously disadvantaged / underdeveloped outsiders.

Developing patterns of environment and development education emergent within these widening intermeshings and equalising shifts must remain an open question in the struggles of the present. Continuing struggles will hopefully be illuminated within patterns of long-term social development in the region and how these gave rise to diverse processes of environmental education for patterns of social control, amidst escalating socio-ecological risk.

The environmental education enterprise that had been shaped within early conservation struggles and within continuities of academic and statutory shaping processes into the 1980's had, to a large extent, lost sight of the long-term amidst a rapid levelling in power relations. New moral imperatives of restitutional reconstruction and a continuing institutional objectivity shaped a shifting and a narrowing amidst spiritual amalgams of mother earth and social justice for people-centred, sustainable development. All of these orientations were developed within discourses of difference in continuing research to develop objective models of process. These

clarifying discourses served the interests of service institutions more closely tied to communities at risk, developing as political sociologies to advance influence and to attract funding. The economies that emerged to develop and sustain these processes had a decisive role in developing continuities shaping the field into the present.

## **xvi Economic continuism and social control**

Of note here is how developing processes of economic enterprise shaped environmental education and also maintained patterns of continuism. To this end the World Wide Fund (WWF) has been a key funding mediator,<sup>54</sup> early on giving money to those who might ensure continuing stability within the status quo. Initially environmental education centres were the primary emphasis as children becoming aware in nature was not a threat and held images of hope for a sustainable future. As the primary focus of donor support, these developed throughout the country in the 1980's. Special attention was given for centres and programmes for black pupils and teachers. Notable also is a large amount of donor funding being used to develop facilities in state wildlife conservation areas.

Into the 1990's there was a clear shift in donor attention. The sufferings of people became the next focus, as environmental education left its originating wilderness roots and sought to get sustainable jobs and money into the hands of people. Within this, and following global trends, large amounts of funding have gone to a wildlife training college for Africa, Faith and Earth

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<sup>54</sup> Here one must avoid the trap of assuming that the funders simply responded to the developing field by getting money for proposals that came from the institutions and communities involved in the developing enterprise of environmental education. The illusion of responding to the field is often created with a steering committee of peers and processes of independent review but the interests of funder and funding agency are always uppermost. Independent project approval committees often stand outside peer review processes to direct, mediate and circumvent in ensuring that what is desirable or expedient is funded and what is worrying often get lost or hung-up in the works.

Keeping research and training programmes in environment and development education. The developing picture is revealing of shifting social and commercial agendas with developing processes being centred on three key processes of social control. Together science, spiritualisation and the symbolic violence of the academy are powerful processes of continuism. The panda logo of the WWF, as ecstatic icon of nature's benign good and mystery at risk, has come to hold public attention and to mobilise funding for conservation projects. A developing regional and global figuration has thus come to sustaining a professional staff and to mediate funding for good work that keeps public attention and ensure a continuing flow of money. Beyond pointing to emergent continuities as open questions that merit attention, any examination of developing processes must remain outside this study. Noting these processes and developing trajectories is, however, important to an examination of how diverse social figurations have emerged to involve themselves in resource development, research, curriculum development and teacher training processes in environment and development education. This reveals a developing mismatch in the WWF strategy for sustainable living and a double bind of narrowing dependency in processes of project management.

## **xvii Teaching a detached field of principles, concepts and techniques<sup>55</sup>**

Process images are often very difficult for us to see, as we find it is hard to imagine that what presents with such objective clarity to us today could have developed in relatively open-ended and apparently ad hoc social processes. It should be borne in mind that this is because

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<sup>55</sup> In looking at the problem of reified methods abstracted from socio-historical processes we wrote a booklet that sought to locate models of process (methods) in the historically developing field and around notions of the environment as these process images developed from the idea of wild nature around people to interacting social, political, economic and biophysical processes in history. This enabled us to make more sense of the developing picture and to develop a sense of a reality congruence of method image in social history. Ironically it presented as a rich capital of possibilities for teachers. It was included in a training course that sought to engage people in a clarifying struggles amongst others in their job situation rather than to present a picture of the field and what to do to make people aware.

environmental education is today presented to many in academic courses and established institutional figurations as a defined field, compelling and exciting new principles, concepts and techniques that can be studied / learned, researched and done with others in particular ways.

In many tertiary institutions today teachers and community extension workers are introduced to a defined field and are taught techniques for making people aware of the environment and of community development. These ideologies are articulated as proven ways to change children's / communities' values and behaviour, and for enabling a more sustainable society. Here expert dispensed rational and objective image of environment and development education<sup>56</sup> is often a convincing symbolic violence<sup>57</sup> of objective truth that allows little doubt about the need for a curriculum and a teacher training programme to develop the professional forces as the instruments for the reshaping and control of others. Within this professionalisation of the field, a new generation of specialist educators are orientated with little idea of the open-ended, adhoc, mythical and contested institutional shaping of the established environmental education enterprises as processes of social control. The developing profession is thus slowly walled in with technical terms, theories and methods which define it in specialist terms. Dissenting ideas are often benignly rejected as too complex, abstract and impractical or are simply dispatched to oppositional others on the periphery, by a calling forth of mobilising spirits that obscure the vision within mythical mists of group solidarity.

Patterns of developing academic / statutory social processes have brought this into being but, in so doing, initially wrested the struggle out of the hands of the local networks of people experiencing the risk, but not necessarily having a reality congruent sight of these. A more reality congruent perspective often developed amongst detached figurations in institutional

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<sup>56</sup> This is a recent processual shift within global processes of developing interdependence that have attempted to fuse development and environment discourses into a unitary conception of education on and amongst participating communities of individuals being developed and attaining improved states of awareness and skill for sustainable living.

<sup>57</sup> This term is derived from Pierre Bourdieu and relates to a monopoly of power chances within developing processes of struggle. These processes are particularly significant within the developing rules of the game in the academy (Bourdieu,1988)

settings. As external, institutional objectifications of risk<sup>58</sup> these set in motion a trajectory of developing social processes that shaped rational educational enterprises of large scale specialist intervention in the lives of people. Within circulating institutional objectifications of process is an emerging clarifying contestation into the 1990's. This sought images of reshaping processes within the symbolic terrains in which humans are intermeshed in everyday social life. A **paradox** in this critical turn is that the enterprise of environmental education either joined a rhetoric of facilitatory emancipation and remained within a sustaining framework of prevailing continuities, or became a further tyranny of detached harmonies that sought a benign / strategic colonising of social space with romantic blends of restitutorial justice and fantasies of earlier indigenous spirits of sustainable living. The struggle for more grounded social processes continues with little sight of the open-ended intergenerational twists and turns of developing process that have shaped where we are and how we see our environmental education activities in a world of escalating risk. The review in/of developing processes of this study seeks some insight into shaping processes that might illuminate where we are and how we got there, with the prospect of being able to make more informed decisions within continuing processes of struggle.

#### **xviii Academic/institutional political sociologies of change**

Into the 1980's, environmental education was being firmly wrested into institutions and academy and shaped as an objective field of increasingly diverse, but equally valid perspectives. Convincing stories of how environmental education developed in and out of early history and environmental stress and educational movements to foster environmental change were concocted and mediated within the philosophical power of the academy, science and state institutions. Through these intermeshed social processes, environmental education has become a professional field, mediated and taught as an academic thing. Within the

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<sup>58</sup> A key issue obscuring things early on was the risk to the conservation institution intermeshing with the institutional view of the risk within which the communities of others were intertwined. These were to shift around until the institutions began to see themselves sharing developing risk amongst 'others as brothers.'

struggles of working with and amongst others and during the processual levelling of power gradients there has been a developing shift in relational dynamics through which many others have become brothers, sisters and communities of diverse people in/on a land at risk. How the story develops from here must remain an open question.

Within the academic and statutory shaping of environmental education, the seeds were sown for an arena of continuing contestation and considerable conflict. Conservation institutions defined environmental education in a variety of shifting terms within a sustained continuism, and the academy mediated and criticised this with a philosophical and a developing socially critical eye. And, all involved had to keep an eye, and a hand, on the money needed to continue to do this<sup>59</sup>. The ironic issue that arises here is how, in effect, early shaping and emergent reshaping social processes have sustained orientations that are more and more outside (above) and insulated from the socio-ecological terrain of environmental degradation, and its socio-ecological and political history.

The trajectory of shaping processes into the 1990's reveals an Eliasian 'worm in the apple' of environmental education processes in modernist institutional settings. Here institutions seeking to monopolise the right to draw the maps for the reshaping of others, have developed rational models of process with little sight of social processes shaping sustaining continuities of structure and function in human social life. On an increasingly detached and objective terrain of institutional social discourse, the developing field has been shaped as contesting political sociologies, seeking to sustain economic and narrative ascendancy within a regional landscape of rapid social change. These modernist, academic and state processes have developed environment and development education as diverse fields of objects and spirits; abstract models of process for imposition within schools, field centres and amongst local communities around

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<sup>59</sup> Of note here is how the discourses of the academy interacted with and followed the narratives of the day, becoming pragmatic in its mediations to the point that everything is OK if true in the eyes of the beholder. This narrowed critical engagement to the absurd position that individual academics hold differing but equally valid theoretical propositions; uncoupled individuals lost and fascinating in themselves in the present.

nature reserves.

## **xix Some developing cases of shaping struggle**

As processes of wider interdependence advanced, so the problems were differentiated less narrowly as physical problems and more as socio-historical and political issues<sup>60</sup>. This slow shift occurred within changing processes and served, in turn, to develop trajectories which differentiated problems and reshaped the emergent and increasingly contested images of invisible risk we struggle within today. Large scale sociopolitical processes of change in the southern African region into the 1990's have been part of and influenced this developing story.

For this study and to give practical examples of these developing trends in the region, the next chapter examines three cases of 'environmental education' activities in interacting institutional settings. The first is the Umgeni Valley Project and the Share-Net resource development social figuration. The second is an intermeshed 'earth-love education' research, resource and curriculum development process in the area and interacting within a wider national institutional setting. The third is a case of developing policy and education processes as these emerged amidst increasing concern for neighbouring communities and was evaluated within a research project intent on developing a model for sustainable natural resource management amongst peoples living around protected natural resource areas.

All of these are developing social processes within which environmental education came to be shaped in particular ways within emergent political sociologies in institutional structures in diverse social settings in eastern southern Africa (Chapter 10).

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<sup>60</sup> Robottom, 1991 for a description of these developing orientations elsewhere.

## Fieldwork materials, textbooks, syllabus and community projects\*



\* 1. Jim Taylor (WLS) and Mba Manqele (NPB) with teachers at workshop. 2. Share-Net materials. 3 & 4. School textbooks, Opie, 1989 and 1992. 5. NPB neighbour relations pamphlet, 1994. 6. Council for the Environment core syllabus. 7. Community craft market, Hluhluwe. 8. Brick making project, St Lucia Wetland Park. 9. EAO Jone Porter at community garden project, St Lucia Wetland Park.

## CHAPTER TEN

### A field centre, a curriculum and evaluation research

*It is at small functional centres that the foresight, more complex self-discipline, more stable superego formation enforced by growing interdependence, first becomes noticeable (Elias, 1982 [1939]:257).*

#### i      **Introductory review**

The previous chapter examined how intermeshing statutory and academic processes shaped environmental education as institutional ways of regulating social life. Early educational activities, within the orientations and conventions of the times, initially developed as institutional processes of social control so as to avert pressing socio-ecological risk. Early top-down models of process for creating environmental awareness changed to more interactive problem solving approaches within a sustained levelling of the power gradient as the previously weak became stronger. Accompanying this, reflexive turns also shaped a moral concern to facilitate sustainable living amongst others and, more recently, is extending these developing imperatives to biophysical surroundings.

The picture revealed is of relatively blind and open-ended developing processes as an early figuration of specialist environmental educators struggled for attention and funding within the institutional and philosophical mediating conventions of the time. These shifting processes served to define a field, its relevance, its origins and objective models of process for an educational game to reshape patterns of human social life. They shaped objective concepts and continuing research which clarified specialist models of process within the field centre, school curriculum and wider community development contexts examined here.

The field was further shaped, defined and diversified within globalising interdependence when environment and development education<sup>1</sup> emerged as a broad international synthesis to rectify an earlier separation of development and environment concerns. In this expanding and diverse field, a plethora of mediating institutions has sought to partition / monopolise models for the regulation of social life through educational intervention for sustainable environmental management.

Academic institutions, in particular, clarified the field within developing research and wider mediating interactions, concurrently teaching it as principles, concepts and methods for social intervention / interaction to create awareness and change. Within continuing struggles, accompanying an equalling in the balance of power, institutions became immersed in struggles to clarify more facilitatory approaches to education / development; participatory models of process within existing institutional monopolies of knowledge / power as mediating experts look in on the lives of others. Clarifying contestation and the struggle to retain institutional ascendancy in a widening synthesis, further shaped developing political sociologies as research discourse played off contesting abstractions of process<sup>2</sup> within the open-ended trajectories of more global institutional interdependence and rapid regional social change.

Within the academic and statutory terrains, institutions with established political economies had thus come to contest the right to draw the maps for shaping others in a more sustainable environment. These struggles emerged as diverse imperatives to empower others and were essentially played out as a contested reshaping of abstractions of process and efforts to join hands with the previously weak<sup>3</sup>. There thus emerged contesting political sociologies, the ascendancy of which was further shaped within the trajectory of social change by the

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<sup>1</sup> The Rio Earth Summit and Eco-Ed, Toronto Canada are examples of globalizing processes that have developed the idea of environment and development Education. See Wynberg, 1993.

<sup>2</sup> The key process here was the dialectic rationality of philosophical conventions which in interaction with institutional detachment shaped the need / pressure for more rational management and evaluation in the field.

<sup>3</sup> Examples of this are the establishment of community forums by nature conservation agencies and the development of numerous community service organisations, many within international networks.

intermeshed power of research, spirit / myths and more global institutions which made money and ideas available for the developing game.

A clear view of relational dynamics and shifting balances of power here is often lost amidst more global intermeshing and an apparent shift with the rapid emergence of imperatives seeking to empower and liberate the underdeveloped. These emancipatory political economies seek the hands of 'others as brothers and sisters' so as to empower and restore them as sustainable communities. Closer scrutiny reveals that the rhetoric and appearances of socially critical empowerment processes are often more a question of engineered compliance within the dictates of the development agency<sup>4</sup>. This has accompanied *a retreat into the present*<sup>5</sup> where ahistorical individuals come to be detached from developing struggles which have shaped us and where we are today. Without history, and in the company of other detached specialists, the strong feelings that accompany risk can create detached harmonies for reshaping others within powerful institutional ideals of sustainable living. These have unfortunately, at times, been constructed around the experiences of guru figures and romantic fantasies that have little functional relevance, despite the strong spirits and passions that may surround them.

Stripped of historical authenticity, social location and detail, these developing, recurrent process images are a somewhat stark picture of an emergent educational game within which some of us have invested years of work, considerable intellectual effort, emotional involvement and our hopes for a sustainable future.

The challenging process images and developing story revealed here do not devalue the field as some myth-debunking, nihilistic turn might appear to do. Within an Eliasian process sociology

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<sup>4</sup> A good example of this is how the recent international concern for biodiversity and African development agencies seeking to empower indigenous peoples have merged the two into a model for sustainable living. Recent developments suggest a merging of conservation of biodiversity and ethnic diversity within a rational strategy for restoring indigenous harmonies of sustainable living. See Davion (1995) for a blending of these within research on reserve neighbour interaction, the third case examined in this chapter.

<sup>5</sup> This is a key issue as a retreat into the present and individualised experiences has lost sight of shifting balances of power amongst 'established and outsiders' locked in shifting struggle. (Mennell, 1992:116)

perspective for this study, they are sensitising images for a continuing critical appraisal of developing environmental education processes in the regional social situations of our work. Within this we are struggling for insight to clarify better social processes where, in the company of others intermeshed in escalating socio-ecological risk, we might reshape social control within surroundings, amongst others and within self. Here the age-old struggle to sustain developing environments continues amidst widening interdependence, escalating risk and the influence of idealised harmonies of environment and development education that seek to reshape social life.

## **ii The developing research process**

The sensitising concepts of the previous chapter are useful for looking back on and into the three cases of developing social processes reviewed here. In each case examined, I was and am involved in the developing processes. These include this study, a sociological review of long-term developing social processes that seeks insight in/on the stories within each of the cases examined. In a methodological sense, this is a grounded interplay amongst continuities of involvement and detachment which, in the company of others, takes developing shape in/as a social epistemology with critical insight into continuing meaning-making struggles in environmental education in the region. The developing processes of the study thus continues at a differing level of synthesis, an interpretative sociological study in/on emergent processes of education into the 1990's in eastern southern Africa.

This position is in keeping with the Eliasian challenge for a sociological discourse to reside within the social processes of the day, and it meets my research imperative of grounded engagement in a process sociology clarification of the developing terrain within which I work. Throughout the study it is the shaping processes that are my concern; a clarifying challenge shared in the company of others working in environmental education in southern Africa and

elsewhere in the world, as wider interactions and processes of intermeshing continue. Within these diverse and developing social figurations we need a continuing critical review if our endeavours are to be more fully understood and more clearly seen against the terrain of developing risk we wish to engage.

In critically looking at the processes so closely involving myself and others, I am aware of strong feelings within developing interests. These might obscure features from sight or be deeply felt by all so closely involved within concerns that occupy our lives. I must thus reiterate that in this study it is a better sense of the developing processes and shaping intermeshings that are my concern. These are often beyond our sight but are, and have been, pervasive influences on the stories within which we struggle to clarify a better view in the tasks that engage us. We are thus both actors and victims within the webs of stories and activities we encounter, shape and share.

This study looks into and back on some of these, and into the long term as well as at some of the processes that had a pervasive influence but were beyond our sight in the times, or beyond our tenuous control in clarifying struggles. With this in mind, the study examines shaping processes within axes of tension and presents amongst us as an interpretative account for a better sense of the tasks enveloping us as we seek more insight and purpose than might have been the case before.

With these orientating comments, the study continues as a critical engagement within windows into three regional cases as these interact in widening intermeshing in a developing field.

### **iii Windows in/on three developing cases**

This chapter seeks, within this landscape of open-ended shaping social process, to add some

depth to the pictures of process emerging within the study. To do this, it examines three regional cases that developed within the twists and turns of wider shaping processes examined in the last chapter. The three cases span the 1980's and they reach into the present day. They each have numerous points of contact as developing processes and yet each is a clear case within key intermeshed trajectories in environmental education; field centre programmes, curriculum development and conservation agency / neighbouring community interaction.

The first is a case of an environmental education field centre and a co-operative resource development project in the region. The second is a research and curriculum development process extending from a resource development project convened at the same field centre and reaching into national institutional structures and processes. The final is a more recent research process on reserve-neighbour interaction in and around two conservation areas administered by differing regional conservation agencies, and undertaken by a visiting researcher working within a university-based institute.

The case of an environmental education field centre is that traced in chapter eight and the developing story is picked up at an early evaluation in 1987. Further developing evaluation processes are examined to shed light on clarifying struggles in a small function centre. Particular attention is given to a turn that gave rise to cooperative resource development and how this shaped emergent ideas that came into wider prominence and contestation in and beyond the region<sup>6</sup>.

The second case of an 'earth-love curriculum' emerged parallel with developments in the field centre, and was immersed within these for some time, before developing as an axes of tension

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<sup>6</sup> See Appendix D for a paper on the shaping of Share-Net. This is rich in much of the processural data that would have added unnecessary complexity to the overview developed in this chapter. Chapter case overview and 'lead-in' paper can be read together for a richer sense of developing processes within this project. Also, see Taylor, 1997 for an overview of features of the Share-Net process.

in environmental education into the mid 1990's<sup>7</sup>. This process is reviewed to examine a wider intermeshing reaching into national institutional settings. Key processes examined are spiritualization / involvement within resource and curriculum development initiatives amidst rapid social change and a levelling of power gradients. These processes and change revealed orientations and institutional vested interests that might otherwise have remained beyond our view. They also prompted reflection and clarifying contestation, especially regarding curriculum development in environmental education<sup>8</sup>.

The third case is located in rationalist shaping processes that reach back to early institutional evaluation imperatives, as these were reshaped within a levelling of power gradients and a shift in focus to education for empowering neighbouring community participation in the prevailing political economy of conservation and ecotourism. Attention is centred on the reshaping of myth and the power of research as a tool within a socially critical imperative where more intentional social engineering of institutions and community seeks social justice and sustainable living. The story of this case reveals how processes shaped within philosophical conventions may serve more to sustain developing political sociologies in institutions than to foster an engaging clarification within social contexts of struggle amidst escalating risk.

What appear to be distinct and separate issues are actually simply three windows within a broadening developing story, each open-ended in itself but all interacting within the trajectories of wider processes that have been, and remain, beyond our reach. Whereas each case is revealing of open-ended twists and turns, none is a direct critique of the individuals and institutions involved. To establish this point, my account is stripped of direct references to institutions and individuals, except to locate these in this interpretation of the developing story.

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<sup>7</sup> Appendix B is a 'lead-in' that deals with this orientation in greater depth. Of note is the powerful oppositional narrative that is relatively blind to shaping processes in social history. The same will be note of the 'earth-love' curriculum narrative itself.

<sup>8</sup> See Taylor, O'Donoghue and Clacherty, 1993 and O'Donoghue, 1994b.

#### iv A field centre of clarifying struggle

Following on from the story of chapter eight, the field centre environmental education project experienced further developing axes of tension as it sought wider recognition in expanding the influence and effect of its now proven models of process for creating greater awareness within interactive experiences in wild nature. In 1978, during a visit of a few days, the project was evaluated by two specialist environmentalist / educators employed to advise on developing management issues so as to place the project on a stronger educational footing within a developing network of centres throughout the region<sup>9</sup>. Following the report, all involved were left shattered, as if *cast into a wilderness of confusion and doubt*<sup>10</sup> at a frank expose of administrative failings, inadequate programme objectives and an orientation said to be of little relevance to the environmental struggles in southern Africa at the time<sup>11</sup>. A developing crisis led to the resignation of conservation field staff and the employment of teachers to run the programme along more professional education lines<sup>12</sup>.

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<sup>9</sup> An evaluation process started with a course evaluation in February (Hurry, 1977). A draft framework for the proposed *Conservation Awareness Programme (CAP)* was developed in September (Downing, 1977) and the evaluation by two experts undertaken in mid-December (WLS, 1978). That the CAP 'teach and test by objectives' preceded the field visit suggests some tension amongst the 'experiential spirits' of nature experience and 'measurable objectives' perspectives that prevailed in formal education and teacher education institutions at the time. This was to remain an axis of tension into the process approaches and constructivism of the 1990's.

<sup>10</sup> These were a graphic description given to me over the telephone by Dr Nolly Zaloumis who chaired the committee at the time. They are seen as appropriate to quote here as they capture a sense of a distancing detachment and regrouping that took place in the early 1980's. This sheds light on why the Umgeni Valley Project was not presented in any detail at Treverton, many of the key ideas being implicit within the curriculum proposal by Don Richards who moved from the Umgeni Valley and was involved in convening the Treverton Conference (Pratsch, 1982). This conference served to return a credibility to the Umgeni Valley nature experience models of process and these came into prominence again into the mid 1980's through EEASA and the Wildlife Society. There followed a revival of the nature experience orientation when the staff saw themselves as givers of experience and not instructing teachers in an objective classroom sense (Umgeni Valley Project, 1987).

<sup>11</sup> Wildlife Society of Southern Africa, 1978. Summary and part one of a report to the education committee on the Joint Venture evaluation undertaken in mid-December, 1977

<sup>12</sup> The 1978 evaluation was a process of such confidential rapidity that only one copy of the first half of the report is to be found on record. Despite contacting two senior members of the education committee that received the report, I have not been able to get a copy of the second part that erroneously links the development of environmental education to interaction with British traditions of field studies and outdoor education. The Rhodesian (Zimbabwe) model of the Mushandike 'school in the bush' had a more direct influence with two members of staff working on the Umgeni Valley Project in the late 1970's. Mushandike and Tsanga Lodge, another Rhodesian project, had direct links with the Schools

Despite many members and staff of the field centre pointing to this early evaluation as a reshaping axis of tension within the developing project, it appears to have had little direct shaping influence and was not a clear shift in environmental education. I report this after having scrutinised developing processes within a reconstituted project and being unable to detect any significant change in the trajectory of environmental education.<sup>13</sup> This early evaluation was thus little more than a bump in the road and an example of a developing political sociology amidst contesting institutions, departments and personalities.

At the centre of the problem appears to have been the axis of tension amongst wilderness nature experience and the formal education culture of education by objectives. Richards was a fierce exponent of the former and Downing (1977) an expert on the latter. Despite this and an apparent revival of nature experience orientations, the evaluation has the appearances of a 'shake up' but in the ensuing 'shake-out' amongst the new staff of teachers, one sees little change in programmes. A continuing axis of tension amongst whether 'wilderness encounter experience' or the 'planned content and activities' created awareness, changed values and stimulated the desired conservation action at home continued into the 1990's.

The only departure apparent is actually counter to the modernist institutional imperative for greater structural and objective clarity in education programmes, as a revival of nature experience. The new professional teachers employed on the project took some time to bring technicist objectivity into question. A rapid development was however the discontinuing of

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Expeditions Society which was somewhat of a break from the outdoor education traditions of the United Kingdom in the 1950's and 1960's, developing independently of it in Bulawayo, Zimbabwe in the 1950's. John Wood a retired headmaster and secretary of this organization for many years, gave me an account of its development and a more direct link with scientific institutions in Britain. A similar schools Zululand expeditions preceded early schools wilderness trails in Zululand but I have been unable to establish any direct developing links within the emergence of fieldwork beyond the pioneering work of Ian Player.

<sup>13</sup> On the surface there was a strong feeling of change as new teacher expertise entered the project and a more settled sense of purpose, confidence and satisfaction redeveloped within administrative structures. These appearances and feelings of change are, however, a surface reshuffling around established processes and orientations that sustained established trajectories.

teach and test approaches to fieldwork that were apparent in the late 1970's. The tests were used to select children as leaders to participate in more demanding wilderness experience programmes. The evaluation drive for increased functional objectivity lapsed after assurances from other experts that all was well in the project,<sup>14</sup> and the small functional unit of enthusiastic staff went about the task of guiding young children in interdependence seeking experiences in wild nature.

The mysteries of nature and experience in the wilds continued as a central spiritual thread in the developing figuration of outdoor environmental educators into the 1980's<sup>15</sup>. The persistent dialectic process of placing nature experience against planned programme was set within strong feelings of individual experience / spirit of solidarity in the field.

The success of the South African example of an environmental education curriculum reported at Treverton, and its resonance with environmental education projects elsewhere in the world was a key restorative process following the apparently devastating evaluation. What was not easily recovered, however, was any confidence in the value of formal professional evaluations. A legitimacy seeking within the academic conventions of professional evaluation continued until the issue surfaced again into the mid 1980's. The shift from conservation 'educators' to educational 'conservationists'<sup>16</sup> did, however, bring with it an established professional symbolic capacity of detached critique, and processes that sought evaluation models of process that were to be more sensitive to, and revealing of, what was happening in environmental education. The trajectory of this was towards a process image that located evaluation within environmental education as socially critical processes of problem solving and change.<sup>17</sup>

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<sup>14</sup> Irwin was a stabilising influence in these volatile times, encouraging a critical confidence in the staff that was to shape the Pep-UP evaluation in the late 1980's. (O'Donoghue, 1988c and Wright, 1988).

<sup>15</sup> This loose figuration of 'field centre environmental educators' are currently constituting a structure within EEASA to look after their own interests.

<sup>16</sup> Of note here is that a similar shift involving the employment of professional educators occurred at about the same time in the Natal Parks Board. This developed with the establishment of schools programmes within the developing Interpretation Division.

<sup>17</sup> Janse van Rensburg (1995:208) examines this amongst *reflexivity, critique and transition* in her study of environmental education and research.

Environmental education as a specialist fieldwork methodology held a mediating expertise in field centres and amongst a small band of predominantly Geography and Biology teachers who took pupils on field excursions. This to some extent set wilderness teachers apart, shaping an identity that carried a similar inspiring awe that is found to surround early wilderness educators like Ian Player and Don Richards, for example. The excitement and worship accompanying this status became a feature of a fieldwork method to some who revelled in image and the excitement of fascinating facts and novel experiences that excited children, sometimes to a point of their experiencing a spiritual high and passionate conviction to save the planet. This was, however, by no means pervasive<sup>18</sup> and worried others who sought something methodologically tangible beyond fascination in nature and idolisation seeking to emulate rugged rangers in uniform as 'significant others<sup>19</sup>'. Today, when more and more teachers are conducting excursions themselves one still finds a surprising number who dress the part and play the role of wilderness spirit and guru amongst their students<sup>20</sup>.

After a rolling debate amidst widening interaction and escalating institutional pressure to evaluate its programmes, and developing imperatives questioning of the effectiveness and validity of nature experience approaches, a participatory evaluation 'PEP-UP' was conceived and undertaken over a period of a year in 1987<sup>21</sup>. This was revealing of models of process

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<sup>18</sup> Cases where sobbing eager young spirits were worked up and experienced a presence were not common and were dealt with as being personal or spiritual rarities to be cherished and respected, but beyond explanation, and not given prominence and status so that others might seek to emulate them. Early programmes did, however, have a clear status hierarchy as the programme sought to identify leaders in wilderness who would be inducted into a developing elite status through more specialised courses in wilder areas. Staff who experienced personal salvation in meditative solitaire with biblical text were encouraged to take it to church within them and not to try to engineer the same amongst peers and children.

<sup>19</sup> This term is derived from the symbolic interactionist orientation in the works of George Herbert Mead and Herbert Blumer (Charon, 1995:80). The use of a sociological vantage point, such as this, was to be a developing process that brought many of the prevailing models of process into question and underpins the discourse developed in this study with the sensitising concepts and orientations of Norbert Elias.

<sup>20</sup> When I, as a primary school and language teacher, joined the Natal Parks Board and dressed in uniform, I was conscious of the eco-guru status ascribed to me by children.

<sup>21</sup> See O'Donoghue, 1988c and Wright, 1988.

that were clarified and contested within the materials and courses of the project into the 1990's. The evaluation did little to avert a continuing institutional pressure and a nagging feeling that sought more objective evaluation. It did, however, raise questions and doubts about immersive nature experiences and a pervasive centrality of wilderness / mother-earth spirits as being at the 'core / heart' of environmental education<sup>22</sup>.

A key axis of tension here was the long established methodological rituals of 'fire watch' and 'solitaire'<sup>23</sup> experiences from earlier wilderness education. They were always noteworthy as key shaping experiences until superseded in some cases by 'tree-hugging' and the excitement of being covered with leaf litter for a forest experience<sup>24</sup>. Fire watch slowly fell away and there are many speculative reasons for why this happened, all of which are probably true for differing centres, although it is still a part of wilderness adventure camps in the Umfolozi. Solitaire, time alone with one's reflections on the day / course and an opportunity for poetic and spiritual expression of the experiences, has been a continuing source of clarifying debate that switches into strongly held expressions of individualised spiritual ideals and experience of wilderness, learning and life. This is a legacy of switching turns where nature's wilderness, a sense of interdependence within which was revealed amidst long processes of involved and more detached struggle, was taught and caught as a desirable status / identity within early

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<sup>22</sup> In other developing processes of environmental education this dialectic is to be found over and over again. A key instance that has bearing on developing processes in southern Africa is its emergence in Opie (1987a; 1987b) and its shaping influence through the Outdoor Classroom (Opie, 1989a) into later textbooks (Opie, 1992) which corresponded with the core syllabus proposal of The Council for The Environment (Opie, 1993 and Council for the Environment, 1993). This process is covered in case two of this chapter.

<sup>23</sup> Fire-watch was simply a camp guard, keeping the fire going to ward off wild animals; a relic of a necessity on wilderness camps in the Umfolozi. On solitaire, an offshoot of this and contemplative experiences at waterholes or on solitary patrol in early reserves, see Wright, 1989. His description of solitaire does not reflect the strong feelings with which many orientated an entire course around a time in reflexive solitude as a spiritual conversion to a new awareness. Of passing interest is, how a pipe in an early illustration of a man in solitary contemplation. The pipe-man has survived many attempts to delete it from the solitaire work sheet. Its departure will, in the developing course of social processes, obstruct a sense of the social origins of this activity as it takes on an objectivity detached and a methodological status as one of the key mysteries of personal awareness and change in the developing field of environmental education.

<sup>24</sup> Of these adapted imports from nature experience environmental education in North America, noteworthy is the *Acclimatization* of Steve Van Matre (1972; 1974), which has developed into an 'earth-spirits' educational enterprise that now spans the globe.

wilderness social figurations. These sedimented spirits are still with us today as we seek to develop a more reality congruent sense of educational processes in close company within detached wilderness settings. They remain some of the compelling and sustained creators of a strongly held conviction amongst environmental educators for whom the experience of nature's wilderness is central to environmental educators today<sup>25</sup>.

The close critical engagement of these evaluation processes and a greater capacity for detachment and an increasing use of Symbolic Interactionism for interpretative insight, opened up a shift and new axes of tension with a diverse concern that appeared to span and penetrate many other fields. New insights were set against prevailing objectifications and gave impetus to further shaping processes many of which ran counter to the prevailing technocratic discourse of objectivity and social intervention in state conservation, development and education institutions<sup>26</sup>. These clarifying struggles emerged whilst working amongst teachers within the Share-Net resource development project. A concern for process images and social interaction orientations clarified a open-ended 'dialogue / encounter / reflection<sup>27</sup>' model of process and enabled the constructing of a socio-historical picture of the environment of/at risk, (political,

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<sup>25</sup> A key example of this is a recent dialectic that has led to the popular assertion that environmental education is not teaching ecology and to a relic of apartheid separation which suggests that ecology and nature experience has no relevance to 'black communities' who experience different problems and need to retrieve a legacy of lost indigenous knowledge. These are strongly felt and hotly debated issues amongst individuals lost in the present. The story is very different when one looks into the developing reality congruence that came with ecological insight within early nature experience and problem solving struggle amongst 'indigenous and colonial' conservation staff interacting to make meaning of the wilderness they sought to protect and manage. See the Player and Mgcubu interactions in Chapter 6 for example.

<sup>26</sup> Key reshaping contestations were a review of research by Preston (1983; 1984) evaluating awareness enhancement in nature reserves and an engagement with an evaluation of Zulu cultural perception of Conservation Behaviour Education by Odendal, 1986. These were followed by a clarifying contestation around the We-Care Project that preceded the joint establishment of Share-Net by The Natal Parks Board, Wildlife Society and the Southern African Nature Foundation (WWF) as an EEASA resource development network in 1988 (O'Donoghue, 1988b).

<sup>27</sup> This 'model of process' developed from a sketch developed in a car on the way to a meeting with Professor Dinnie Nel, University of Natal, Durban. The sketch sought to pull together a Pep-Up process image of learning on fieldwork in the Umgeni Valley. Over a period of years she guided our reading into Mead, Schutz, Giddens and more recently Norbert Elias as a sociological perspective and critical appraisal of environmental education developed into this project and the current evaluation of Share-Net being undertaken by Jim Taylor.

social, economic and bio-physical<sup>28</sup>) to be set against the narrow objective perspective of the individual experiences in physical surroundings, 'natural and built.' Developing process models came amidst discourses constructed in differing social settings, with contesting academic symbolic capital, and in a sustained social change as others emerged more as brothers, than objects outside to be changed in instrumental ways. These changes had a profound accelerating and shifting influence on the developing discourses and notions of environmental education<sup>29</sup>. Today, the field centre, continues as a small functional unit of environmental education, its resources and webs of interaction open-ended amidst developing intermeshing in the region.

This case merits closer scrutiny<sup>30</sup> than I have been able to give it here. I have concentrated on some key shaping axes of tension that locate and shed some light on widening social processes of environmental education in the region. Apparent within the developing story are the influences of academic and statutory struggles as well as a sustained legacy of educational conventions from earlier wilderness initiatives. These resonate within the sensitising concepts and developing processes examined in the previous chapter, revealing open-ended yet pervasive trajectories towards political sociologies contesting an increasingly objective terrain, as environment and development concerns merged and the region entered a period of rapid social change.

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<sup>28</sup> This image and the notion of the environment as socio-ecological idea, developed over an extended period within a story of bananas and frogs during a period of social conflict when a politicisation of things environmental was seen as a communist plot. This paper was embargoed for a number of months before permission was given for its publication in the EEASA Journal (O'Donoghue, 1987e). This was also a period of opening up / levelling of power relations preceding the political change of the 1990's and an earlier reaction to an article on environmental education (Boyd, 1985) in an Education Journal of the Natal Education Department (Neon) was also published (O'Donoghue, 1987d). I note these here as examples of an intermeshed web within an open-ended reshaping process that was to bring on the political sociologies and contestations of the 1990's.

<sup>29</sup> See O'Donoghue, 1993a for example. This discourse seeking CLEAR ACTION was built around processes of funding changes as donor agencies sought to touch the lives of the rural poor and the experiences of development of water test kits with teachers.

<sup>30</sup> See other studies on Action Ecology and teacher-centred curriculum development (O'Donoghue, 1988b; 1989; 1990) and the shaping of Share-Net (Taylor, O'Donoghue and Soutter, 1988 and O'Donoghue et al., 1994). The balance interplay of involvement and detachment within this period of clarifying struggle reflected in these papers and developing models of process merits further scrutiny that must fall beyond the scope of this study.

As a responsive small-scale melting pot for environmental education, and as a terrain of grounded contestation and clarifying struggle, the small functional unit of this centre has lived up to Norbert Elias's images of places of reshaping and change. Intuitively, and by chance, the figuration of environmental educators within the centre and its networks did not develop an authoritative 'we know and will teach you how.' The processes had shaped a more participatory approach of asking 'what are you doing and what can we learn from each other?' This orientation of sharing / partnership ran counter to many other similar state functional units which developed as specialist centres of fieldwork / nature experience and extension programmes to create environmental awareness. Somewhat ironically, cooperative Share-Net resource development initiative was well placed to function amongst more equal partners within a levelling power gradient amidst rapid social change in the region.

Within and around the small functional unit briefly examined here, environmental education with a wildlife-experience origination, took other turns which shaped processes and ideas quite differently, but within the same broad trajectories and with equally strongly held convictions to engineer experience, and to change the values of others. A prominent thread here is what came to be known as 'earth love education.' This was a nature-experience spiritualising turn more closely intermeshed within the prevailing Christian National Education ideology of South African schooling. Its origins were widening interaction with notions like acclimatization in nature developed in the United States. A developing figuration of specialists became intermeshed within this orientation, to transform apartheid Christian National Education within a national programme to foster environmental education. Within earth-love education the idea of separately preparing the child for adulthood in a Christian nation was to be reformulated into experiential emancipation within a global earth-love spirit for sustainable living<sup>31</sup>. Key

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<sup>31</sup> From beginnings as *The Outdoor Classroom* (Opie, 1989) this process developed to *Rousing the Sleeper* (Opie, 1992). In its agenda documents for 25 August, 1995 The Council for the Environment, Committee for Environmental Education claimed that as a result of a seminar on the Outdoor Classroom *all veld schools changed their programme content and all the said schools were renamed and changed to environmental education centres* (Council for the Environment, 1995: section 7, page 2.). This positive change is simply noted here noted With veld schools not having been developed in Natal

processes within this developing story are examined in the next case of curriculum development within a national programme interacting within the region and developing into a contestation amongst apparently opposing propositions within rapid social change in the region.

#### v **Earth-love education and a national core curriculum**

Following Treverton, as a developing sense of an objective field was being established, and with the Midmar workshop and the prospect of a national White Paper on environmental education, what was lacking was a key resource that gave teachers an overview of environmental education within the school curriculum. In 1985 a meeting of interested people from conservation, formal education and field centres was convened at the Umgeni Valley Project to discuss a proposal from the Council for the Environment. The idea was for the Department of Environment Affairs to contract the writing of an environmental education resource for teachers.

The resource was loosely sketched out and then written within successively narrowing consultation.<sup>32</sup> The writing and editing appears to have been accompanied by an escalating imperative<sup>33</sup> within the Council for the Environment to develop and coordinate environmental

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and KwaZulu this process falls beyond the scope of this study

<sup>32</sup> This is an important point as clarifying contestation became a problem when the contracted author increasingly wrote within his regional experience and personal spiritual convictions without clarifying engagement with others. The editor commented on this problem as an unfortunate but necessary limitation of the project attempting a national synthesis resource and being undertaken within an impossible time-scale.

<sup>33</sup> In early 1991, after the launch of the book and a series of successful workshops, the Council for the Environment reports in its news letter: *Global environmental awareness has started to manifest itself and South Africa's contribution is developing fast* (Council For The Environment, 1991:1). It also invites groups to apply for workshops which aim to equip participants to, *run similar 'daughter' workshops in their own areas*. This process was at this stage already developing as a strategic national initiative within a small group immersed in a moral crusade to transform others within a developing imperative to save mother earth.

education<sup>34</sup> through the Department of Environment Affairs. Following a protracted delay awaiting the necessary legislation (White Paper) for a government agency initiative, the book (Opie, 1989) was finally produced and published by the Council for the Environment in cooperation with a commercial publishing house. With legislation and book, the Council sought to use the resource to establish environmental education in schools throughout the country, with itself as coordinating body, directing the Department of Environment Affairs<sup>35</sup>.

After a launching workshop in Cape Town in mid 1989, we were involved in conducting the first two in a series of workshops to be run throughout the country in 1990. At this early stage, the conceptual solidarity in the field was still fairly cohesive and the workshop programme did not dwell on points of conceptual clarification and critique. However, as we used the resource in our work situations, it began to reveal a narrow orientation that made it of less, little and finally of no real value, especially for supporting rural teachers to develop environmental education programmes to address local environmental problems. Also, at this stage the idea of a top-down developmental dissemination of a pre-packaged model of process was coming into doubt within a changing power gradient as rapid social change enveloped the area. In October, 1990 we were involved in a third and final workshop with the resource. We used the Council resource less and commented that a better approach might be to run workshops where resources were shared and where teachers looked at what was already being done in the area and how it might be done better. Here the nagging doubt about the coherence of the authoritative narrative was emerging as the story was found not to resonate with observable facts in small-scale developing contexts. On long-term, open-ended social processes of scientific struggle and change, Elias remarks how people in small functional units

<sup>34</sup> The selection and appointment of experts to the Committee for Environmental Education is of particular note especially as the country entered the recent period of rapid social change. At this point a succession of speakers were invited to address the committee and certain amongst these were invited to join what had become a powerful elite with similar spiritual convictions within a strategy to develop a new earth-love consciousness to their recipe.

<sup>35</sup> This is a key developing process and an axes of tension that was to shape much of the contestation into the 1990's. The Council was set up to advise the Minister for the Environment but it took on, with his approval, strategic initiatives to develop environmental education. Into the 1990's Council and Department were to initiate contesting processes to develop a core curriculum for environmental education.

can:

*criticize or reject the dominant and commonly accepted ideas of their society, even when these are upheld by recognised authorities, for they have found that they do not correspond to the observable facts (Elias, 1970:52).*

The developing axis of tension was not clearly spelled out at this stage and nor were we invited to run more workshops. The idea of participant-centred resource development had taken root in the region<sup>36</sup> and a broader socio-historical and political economy perspective on environment was very worrying to a government agency structure in an apartheid state. The machinery of government continued a regular and developing series of authoritative workshops with an increasingly charismatic appeal as the resource was translated into Afrikaans. Next, the Council for the Environment sought to influence the development of a national curriculum for environmental education.

Here, developing processes were to shape a proposal for an 'earth-love education project.' This emerged within a ten year developmental rush from *The Outdoor Classroom* (Opie, 1989) to a grand plan for *Rousing the Sleeper* (Opie, 1992). Within a fascination with developing images of the pattern that connects nature in ecosystems, impelled by the developing magnitude of risk to human kind, it sought to connect everything within an eco-spiritual whole and as a solution to almost all prevailing education dilemmas<sup>37</sup>.

Within these processes, circles of enthusiastic converts emerged with an all embracing image of an experiential methodology for education in nature, about problems and for conservation of the environment. For some, a developing spiritualisation of Personal Saviour / Mother Earth brought a sense of intellectual superiority and slowly closed the circle around an elite of experts who sort to influence and develop a national curriculum for environmental education on to the southern African landscape.

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<sup>36</sup> Curriculum development and teacher support projects like the Science Education Project and Primary Science Project were active in the region and worked on environmental education with the Umgeni Valley Project and Natal Parks Board.

<sup>37</sup> This is examined in more detail in O'Donoghue, 1994b.

In narrowing strongly felt processes like this, environmental education for awareness, attitude change, values clarification and behaviour change held an excitement and a shared vision that gave us conviction and certainty for approaching this vital job. We had little sense of developing processes of modernist continuism as early mother-earth harmonies were shaped, within spiritualising turns, into a rational model of process for engineering an 'earth-love' sustaining spirit of change in the lives of others.

Goudsblom (1977) sheds some light on how, within developing professional objectifications of process, elusive concepts can emerge as compelling reformulations that have a deceptive empirical ring<sup>38</sup>. Of these processes in the social sciences he states:

*A system of concepts and theorems may be inconsistent and misleading, and yet have positive functions to those who adhere to it. For one thing it may give them a sense of intellectual security and superiority. A well ordered system radiates an aura of full comprehension and understanding; it is this promise which has made grand systems irresistible. For some the verbal system may have served as a substitute for a lost religion while others may have welcomed it in order to bolster their identity as practitioners of a science which appears to have little empirical knowledge to bolster it (Goudsblom, 1977:104).*

Early on we had little sense that our concepts and theories had tenuous foundations, developing as a *corpus of esoteric knowledge*<sup>39</sup> that impressed outsiders and created a distance that shaped the idea of environmental education as a separate and specialist concern. We experienced a developing certainty as our environmental education ideas firmed up, developing appeal that gave many of us status, identity and a sense of being part of a grand enterprise of religious proportions. It was only a developing doubt, in a small functional unit in our case, that was to reveal a lack of substantive empirical knowledge and to bring the grand enterprise into question. These clarifying struggles were a long and arduous process amidst contested initiatives to develop a national curriculum for environmental education.

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<sup>38</sup> See O'Donoghue, 1994b for an overview of how awareness research, fieldwork with children and classroom problems were woven into a compelling web of deceptive empirical generalisations in the development of 'a grand plan for earth-love education.'

<sup>39</sup> Goudsblom, 1977:104.

At a national level, somewhat ironically, the two state environment structures, Council and Department started independent programmes to develop a national curriculum / policy options for environmental education. The Council author developed books and syllabus hand-in-hand whereas the Department, within a rapid levelling of the power gradient sought to foster a wide-ranging consultative process through the Environmental Education Association of Southern Africa (EEASA) as a project initially sponsored by itself and then by the Southern African Nature Foundation (WWF). Following a national workshop at Dikololo where a more widely representative working group was elected the council unilaterally launched its proposal as a mail shot of a core curriculum outline to all tertiary institutions. Vigorous reactions to this in the run-up to democratic elections led to an extended clarifying debate which exposed questionable research and intent within the Council project.

The earth-love curriculum initiative of the Council for the Environment fell apart under scrutiny<sup>40</sup> that shook environmental education to its nature experience and wilderness spirit foundations, stimulating a necessary reconceptualising of the environmental education enterprise amidst social change within a rapid levelling of the power gradient. By the mid 1990's the clarifying of a rationale for a national curriculum for environmental education had shifted from the Council for the Environment to an interim cross-curriculum theme committee in the Department of National Education. The Environmental Education Policy Initiative, loosely reconciling differences amongst regional and departmental working group documents, was tabled in this interim committee, convened by a past chairman of the Council for the Environment and with the author of Council core syllabus and 'earth-love' books also being a member of the working group.

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<sup>40</sup> Up until this point, although the project had been shown to have little practical relevance in the situations within which we worked with teachers, underlying research and theory had not been subjected to critical scrutiny. It was quite a shock and a very difficult task to bring strongly held ideas into question. Even at the eleventh hour before the publication of a paper in the EEASA Journal an EEPI coordinator wanted to concentrate on issues of mandate and democratic process that were subverted and was wary of a critique that brought into question much of the terrain upon which we all stood as environmental educators. A levelling of the strongly felt spirits and the struggle for a more reality congruent sense of our developing endeavour has sparked some heated clarifying debates on earth-love education in the year that followed the clarifying debate around the core curriculum and textbooks of the Council for the Environment curriculum initiative.

Appointments to contract research posts for a consultative process to develop policy / curriculum are due to be made in 1986 and new national curriculum structures are currently being established within the department of education both nationally and in each region. At this stage the issue remains open-ended and the developing political sociology of a continuing national curriculum process will have a key reshaping influence on what we come to understand, and are involved in, as environmental education in our fledgling democracy in the future.

Similar processes have recently been played out in research to clarify reserve-neighbour interaction, examined as case three in this interpretative review of broadening processes of environmental education that are reshaping us and how we see the world.

## vi Research within a developing political sociology<sup>41</sup>

This section examines a case of evaluation research as it emerged within wider Africa / globalizing interactions and following rapid social change in the early 1990's. Particular attention is given to how, within a third-party, objective evaluation research posture, the project sought to reshape social space amongst conservation agencies and rural neighbours within principles, structures and processes for mediated interaction towards more sustainable living.<sup>42</sup>

Into the 1990's, changing interactions with rural communities, neighbouring nature reserves

<sup>41</sup> I draw this term from Popkewitz (1991) as a sensitising concept for examining how developing institutional relational dynamics function at a site and within developing axes of tension to shape discourses of/on change in a particular direction. Within a process sociology perspective I hope to get a more reality congruent sense of the widening processes of change shaping developing notions of environment and development education (environmental education) as emergent reflexive processes of change in widening processes of dealing with developing risk in school, nature centre and wider community social situations.

<sup>42</sup> This model of process followed the decades of apartheid social engineering that it sought to overcome with a people-centred process. Ironically, by 'cross-dressing' within a benign facilitatory guise its strategic interventionist orientation exceed earlier top-down intent by a long chalk.

became a key concern. Nature conservation policy was changed amidst a shift in the focus to education / extension programmes amongst reserve neighbours. This shift increased interaction with other research and community development groups in a new game of environmental awareness/education through cooperative community development.<sup>43</sup> Here, research to evaluate these endeavours, and competition to get donor funding for projects, became a developing concern<sup>44</sup>.

In the same conservation agency examined earlier, structural / administrative change in the late 1980's preceded a greater concern for better and more positive neighbour interactions than those of the earlier poaching wars of the 1950's and 60's. A state initiated Function Evaluation Programme (FEP)<sup>45</sup> reintegrated the education / extension activities of the Interpretation Division into Conservation Division management structures as 'environmental awareness.' This change decreased school fieldwork support, stimulating the Share-Net co-operative resource development process to provide teachers with the tools for environmental education in the region. It also shifted the focus of attention to people living around protected areas, whose wellbeing was seen as the biggest threat to conservation areas.

Senior management, experiencing developing pressures in the changing times of 1991 undertook an internal consultative and strategic planning process to clarify and implement a *neighbour relations policy and supporting actions*. This was intended to provide improved

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<sup>43</sup> See O'Donoghue, 1993a for a review of a developing intermeshing of water quality monitoring 'ACTION' models of process and community action research 'CLEAR ACTION' models of process.

<sup>44</sup> Much of the money came from international donor agencies wishing to shape the 'New South Africa' through non-government agencies (NGO's) but after democratic elections many switched their attention to the government Reconstruction and Development Programme (RDP). The stakes were high and the competition fierce in this period of change when survival was the name of the game for many research and development institutes as they shed programmes and shifted attention to remain in contention for funding.

<sup>45</sup> This year-long restructuring process was centred on state funded functions and sustainable management of all conservation activities.

access to resources<sup>46</sup> and to increase extension services to neighbouring rural communities. It stopped short of formal structures for neighbours to directly participate in management decisions<sup>47</sup>. The draft policy / strategy was circulated for comment to other conservation agencies, institutes and a growing number of developing figurations of specialists concerning themselves with the plight of rural peoples as the country entered a period of transition to democratic governance following the protracted struggle within apartheid's discriminatory separations. Here, within a declining power gradient, as the weak got stronger and more attention, there was a shift from top-down to more participatory discourses and existing institutes slowly developed more facilitatory postures. A conservation agency *Neighbour Relations Policy* was implemented, and diverse neighbour projects emerged at a rapid rate within a developing partnership with the Rural Foundation<sup>48</sup>.

Reactions to the policy / strategy were on-the-whole positive, but a notable critic was a local research institute that had established economic interests in nature conservation research and rural development. Its criticisms, shared by some staff who participated in the internal policy debate, were that the consultative process had excluded neighbours and did not go far enough towards the establishment of formal joint management structures. This shaped further axes of

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<sup>46</sup> Free entry permits for visits was a foundational proposition that had a public relations intent but the key developing axis of tension was the sustainable harvesting of materials and the benefits of access to jobs. Earlier on an unwritten policy had been not to employ locals lest they be pressurised into turning a blind eye to poaching. This practice was never significant in reserves without large game and was found to have fallen away in many areas by the time it became policy to give preference to locals.

<sup>47</sup> The structures for neighbour participation in reserve management were established in 1996. It is important to note that this change was not a unique process of adjusting relational dynamics / shifting power relations. An earlier example of a similar developing process was the 1974 establishment of liaison committees for many of the key recreation user groups of protected areas. The 1964 development of farm-game extension services and the 1977 emergence of conservancies are similar and interlinked cases of shifting relational dynamics and developing processes of interaction / interdependence.

<sup>48</sup> The Rural Foundation was at the time, a national non-government agency (NGO) with donor funding to provide community development support services for rural development projects. It played the third party in a number of development projects set up through interactions amongst nature reserves and neighbouring communities in the mid 1990's.

tension as the institute sought to establish itself as an 'enabling third party'<sup>49</sup> mediating the changing relational dynamics amongst wildlife conservation management structures and neighbouring communities of rural peoples<sup>50</sup>.

Over many years, the university institute had undertaken contract and cooperative research on ecosystem management, environmental problems and rural development.<sup>51</sup> Into the 1990's its infrastructure had grown rapidly. It thus had more money for its research and development activities, and this funding came from further afield. The increases had a reconstructive / sustainable living trajectory with a developing focus to rectifying the separations, oppressive engineering and omissions of apartheid policies within rapid social change in the region. Within widening interactions, tensions around neighbour benefit from, and participation in, nature conservation emerged within a reintegration in Africa and globalizing processes from which South Africa had been excluded for the decades of apartheid.

To examine these widening, emergent processes where patterns of interaction amongst established and previous outsiders changed, and to look at how trials of strength developed amongst contesting institutional structures, I draw on Eliasian sensitising concepts from works on *Established-Outsider Relations* and *Games Models* (Mennell, 1992:115-139 & 268-264).

To examine developing power relations / social processes of contestation amongst the institutions I also draw on the complementary sensitising concept of '*political sociology*' in work on historical social processes in education research by Popkewitz (1991). The developing story is examined within a research project, undertaken within a university based

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<sup>49</sup> This was to be a key developing process as the mediating reflexivity of a third voice came to develop its own detached collective fantasies and to refine / support / promote these within the developing political social processes of continuing research played out within rational models of process for the continuing game.

<sup>50</sup> Of note here is the development of a national framework of *Integrated Environmental Management* (IEM) applied to the St Lucia landuse debate and developing land-claims as rural communities sought the return of lands from which they were removed in apartheid times.

<sup>51</sup> At about this time a process to investigate / establish a school of Rural Community Development was undertaken by the director of the institute the university grappled with its responses within widening concerns and rapid social change.

research institute, to evaluate patterns of reserve-neighbour interaction.

My concern in selecting this case is not to add to the contestation amongst the institutions and people involved, but to reveal broader developing processes that have largely remained beyond our sight. To do this, in a methodological sense, I examine wider long-term processes shaping the research endeavour, giving particular attention to how the developing story created conditions within which institute and researcher derived a 'critical third-party' orientation for an engagement in the evaluation of reserve neighbour interactions. A sense of long-term developments in Africa sheds light on this open-ended shaping process.

The successive post-war liberation of colonies, widening intermeshing on a global scale and escalating risk, shaped the emergence of figurations of development specialists and their supporting donors. Over time, looking in on impoverished people and degrading environments, they experienced little success in solving problems. Throughout early struggles deficit and restitution models of process were used for funding to overcome colonial exploitation and oppression. Those involved had little sense of wider globalizing connectivity following the apparent retreat of the colonial powers. This only came later with a developing detachment. Simply stated, and early on, specialist environment and development figurations had little sense that colonial occupation was superseded by wider developing processes which further shaped and maintained Africa in an underdeveloped position.

After years of failed intervention, research institutes and their international funding agencies successively became third-party mediators, seeking to facilitate the resolution of socio-ecological problems through diverse research and development initiatives. Within these new struggles came further reflexive shifts shaping socially critical research and community empowerment initiatives which sought to continue engineering change but in more participatory, just and equitable ways. These revised orientations suggested that communities of others had to change themselves, in the ways they chose themselves, with the help of a

benign, enabling hand guiding their critical action research and mediating an empowering transformation from their previously weak position.

Within interacting objective struggles and individualising turns, social figurations of environmentalists in the United States, frustrated by development aid failure and facing globalizing risk, thought simply to buy and protect wildlife and habitats. Murphree (1991:4) quotes the case of a Californian newspaper advertisement which stated, *If you own it , they can't burn it.*<sup>52</sup> After revealing the absurdity of this imperative, he reviews the history of land tenure in Zimbabwe and argues beyond state and private tenure for mediated communal property regimes. The narrative of this academic research questioned 'buy-up and protect' turns, and the idea that the ignorance of indigenous peoples was destroying Africa's Eden.

This shift and a developing synthesis encouraged the rich to make money available for indigenous peoples to restoratively develop themselves in/from past harmonious land management systems, and in so doing to make a better and more sustainable living through overseas visitors enjoying looking at, and shooting Africa's wildlife. The regenerative change was to be achieved under the benign rational guiding hand of the critical experts in the institution who channelled the money to the people as they organised and transformed themselves. Developing processes had thus shaped figurations and models of process for restoring lost harmonies amongst the undeveloped.

The ideal of restorative indigenous harmonies was derived from a utopian romance within the myths of spiritual sustainability in pre-colonial cultures in the Americas, Australia and Africa. This idea was shaped within a developing moral and emancipatory turn within which noble savages of other cultures were set against the savage oppression of European colonial

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<sup>52</sup> This referred to tropical rainforest under threat of being converted into cattle range-land.

expansion. Within developing struggles there emerged a counter stigmatisation<sup>53</sup> and expert outsiders who promised benevolent rich donors, the restoration of indigenous harmonies. The compelling radiance of these rational images of spiritual restoration became irresistible within the rigours of mounting invisible risk.

A good example of this international myth shaping and a developing process of stigmatising inversion is the famous address of Chief Seattle with its noble-savage underpinnings. Here, the beseeching woes of animistic forsaken alienation and defiance of Chief Seathl, and the spelling of his name, were first transformed in an account, written many years after the event, as an emancipatory appeal by a Dr Smith<sup>54</sup>. This was followed by a very recent transformation into the text we treasure today, when it was rewritten as a film script<sup>55</sup> for a romantic epic on the noble indigenous communal peoples of North America. Native Americans and environmental educators picked up and refined this developing collective fantasy as an idealised identity within a manifesto for sustainable living through the restorative activities of the environmental movements<sup>56</sup>.

The struggles of Africa and new narratives of indigenous harmony merged within globalizing intermeshing as developing processes of 'third-party' mediated change took shape, as new people-centred models for attaining more sustainable living. With this recent shift came increasing international funding for Africans to reshape themselves as a nobility of harmonious

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<sup>53</sup> The Eliasian notion of 'counter stigmatization' (Mennell, 1992:138) captures a processual inversion without a shift in power. I find it more useful than the idea of a counter hegemony which lacks a grasp of more reality congruent power relations. Socially-critical environmental education and its passions of involved emancipation could benefit by a developing detachment possible with this Eliasian sensitising concept.

<sup>54</sup> He worked from journal notes taken at the time (Wilson, 1992:1456).

<sup>55</sup> Wilson, 1992:1457, describes this as *a fictional speech paraphrasing parts of the Arrowhead version, but adding a good deal more, particularly modern ecological imagery*. The ecologizing of the San discussed in Chapter 8 is a similar process in the shaping of a foundational myth of indigenous sustainability in environmental education.

<sup>56</sup> This process had a key shaping influence on earth-love education examined earlier in this chapter. Here it may be useful to note that a distinction between the separate / primitive noble spirits underpinning apartheid myths and the mother-earth brotherhood of indigenous spiritual wisdom in North America is just a matter of degrees on the same continuum.

spirits conserving wildlife for the idealised pleasures of overseas tourists. The figurations of elite involved in establishing these new sustainable harmonies were institutes of scientists with a collective identity and a developing third-party imperative to mediate the reshaping of communities of others through socially critical action research within the emergent counter stigmatization of indigenous harmony lost.

Mennell on the *Established-Outsider Relations* of Elias provides some interpretative insight into complex webs of developing relational dynamics within small functional units such as these when he states:

*Collective fantasies have to be understood in the context of fluctuating power relations and tensions in figurations encompassing families of origin but going way beyond these in complexity and scope. We-images and we-ideals are always compacts of emotional fantasies and realistic images (Mennell, 1992:138).*

The case of institute evaluation research examined within developing processes such as these, appears to have a rational structure and relational dynamic of its own for mediating amongst contesting objective truths of interacting conservation institution and neighbouring community. This is, however, little more than an outcome of a 'retreat into the present' within a philosophical objectivity and a developing individualisation. Here long-term developing institutional collective fantasies are experienced personally as an involving shared imperative within an objective terrain, promising relief from escalating risk.

How a third-party posture developed in this way in Africa needs to be examined within shifting power relations and originating processes shaping of researcher in/and institutional functional units. A key issue is the underpinning of developing collective fantasies that hold the figuration together is a shared sense of identity and strong imperatives to facilitate the regulation of social life. Within a detached 'third-party' posture, all others are outsiders and can, within the associated ambivalence, be ascribed with what is undesirable, as this is identified within a developing, socially critical narrative, and impelled within developing fantasies of liberation and sustainable living . This is not unlike the developing outsider relational dynamics on early

reserves, the levelling out of which was behind the recent struggles for more consultative and participatory natural resource management in and around nature reserves into the 1990's.

Bauman with his unusual clarity of insight points out that:

*Whoever keeps the hard-won right to draw the charts of social space binding on the others (this right, we may say, is the hard core of all domination and oppression; it is also the coveted prize of the fight against present oppression and a ticket for the future one), would tend to diffuse the aporia through selecting among the strangers of whom one cannot rid oneself, one category of 'absolute-strangers' one can, allegedly do without; the category which carries the sins of the strangers without sharing in their uses, and thus can be (so one hopes) disposed of without undermining the business of life. All designation is, of course, a palliative, coming nowhere near the genuine 'problem' (Bauman, 1993:162).*

The problem comes, when in the party of three (with an objective symbolic violence of the third appropriating the right to draw the charts), the mediator plays off the other two as strangers; estranged according to how they are judged to be playing a new game of sustainable living under the mediating hand and ideals of the third. In his Symbol Theory, Elias argues for a sociological discourse within developing struggles and played out amongst those intermeshed within the twists and turns of daily life. Although the research idealises reshaping interactions such as these, the appropriation of social process to an objective terrain mediated within its emancipatory fantasies, essentially creates a further, and an arguably more and narrowing oppressive tyranny than that which it sought to displace. The elite of the institute can, within these processes, become the Gods of earlier stories with research and education as their tools of oppression. These games can come to be played out amongst collective fantasies within a developing hyper-reality, cut off from the business of life-world, the harsh realities of which are not experienced or can no longer be faced. Elias always warns of a philosophical road of rational objects and alienating closure or radical turns that can accompany processes such as these. These may feel like, and come to be narrated as, the 'end of history' or the 'death of God.' They are, however, shaping processes in a continuing present out of the long-term twists and turns of intergenerational processes that have shaped what and where we are today, and many of the attendant challenges, seen and unseen.

The challenging and insightful sociological discourses of Elias and Bauman helped me to grasp what began to worry me about the trajectory of the evaluation research on reserve-neighbour interaction, as this developed into a grand plan for the mediated reshaping of established and outsiders by a detached third-party.

In 1994, the research project on reserve-neighbour interactions was approved for two study areas in the region.<sup>57</sup> At the same time the Human Science Research Council (HSRC) offered that the conservation agency participate in a national attitude survey amongst people living adjacent to nature reserves. It was through inviting the institute researcher to participate in the HSRC survey that I heard of the proposed evaluation project. To support his project we requested the HSRC researcher to work in the areas that interested him and he treated the survey as an initial 'base-line study' that might contribute to his more explicit evaluation of interactions.<sup>58</sup>

At the time we had little sense of the wider developing processes within which we were intermeshed, and when the HSRC survey was completed we parted on our respective projects in early 1995. In December, 1995 I was sent a further survey which had been developed as an extension of the earlier evaluation of reserve-neighbour interactions<sup>59</sup> and was intended to give objective substance to a workshop to clarify 'Community Relations, Extension and Environmental Awareness' functions of the conservation agency. I commented that the questionnaire was *confusing and poorly organised* after two environmental awareness officers had spoken to me saying that it made no sense to them in their work situation and that they had been instructed that they must complete and return it without creating problems. These

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<sup>57</sup> See Davion, 1995.

<sup>58</sup> The HSRC project is extensively referenced in the Davion, 1995 study on reserve-neighbour interaction.

<sup>59</sup> The extension was contracted by the Natal Parks Board to give the researcher contact with other environment awareness and extension programmes. Following a questioning of the questionnaire design, there was an extended debate on the compilation and interpretation of results. The researcher was not happy on a number of issues but none-the-less completed the analysis and tabled results at a workshop on policy and strategy in *community relations, extension and environmental awareness* (See Davion, 1996).

experiences and observations led me to look at the research report which I described as having:

*a process reducing design that is not socio-historically explicit, allowing no discursive basis for making any sense of the data amongst interacting community neighbours / conservation agency (O'Donoghue, 1995:1).*

During developing interactions with the researcher, the continuing project emerged as an axis of tension within which I came to see how wider processes beyond our view had had a pervasive shaping influence on the evaluation and circulating inconclusive discussion and differences of opinion that followed.

In examining the report, my first concern was how the survey did not relate to the experiences of environmental awareness officers, and their doubts that it would inform their work situation. On the surface, the evaluation had raised some telling questions about the environmental awareness, extension and neighbour relations activities of the conservation agency. This problem appeared to emanate from an institutional expectation for ordered, rational management of people in the same way as the scientists had developed management plans for natural resource areas and how the discourse of the evaluation appropriated the voices of management and neighbours in opposition, and mediated these within its predetermined conceptions of what was ordered and desirable. Popkewitz (1991) on research in the cognitive sciences provided some sensitising concepts which might assist in understanding this process. He describes how:

*The everyday experience and communications of diverse groups are decontextualised and reformulated to a set of rules, obligations and values of the cognitive sciences. The problem is to identify common errors or misconceptions and strategies to overcome the deficit. Individual perceptions, cognitions and interpretations are reencoded ..... separate from social or historical processes (Popkewitz, 1991:184).*

The research by its orientation and design could not become engaging within the social space of those it evaluated, except by revealing misconceptions and deficit where things did not measure up to its preconceived ideals of process. It also appropriated their words and reformulated their ideas into images of conflicts for its mediating hand. When I discussed the quotations of Zulu-speakers with colleagues and asked them to say them to me in their mother tongue, they would

do a translation and then sometimes add, "That is not how a person would say it in Zulu." Similarly, the environmental awareness officers argued, "This is not how things are."

The first thing that struck me was how the entire evaluation was constructed around a presupposition of indigenous harmonies and five principles for an integrated rational framework amongst state conservation and community custodial management. These, although similar to the *Campfire* programme of Zimbabwe are more strategically explicit towards a synthesis within a proposed rational strategy for sustainable living. This grand plan with its models of structure and process is the conclusion of the project. A revealing feature of the concluding model is that the whole thing is bracketed on the side by a third party research and monitoring function located in the academy.

The study presents as rational discourse of social organization and regulation located under the mediating hand of the institute with the 'strategic research process<sup>60</sup>' intended to shape the conservation institution within its ideals of mediated community natural resource management. To do this, the text appropriates the voices of conservation agency and neighbouring communities, playing one off against the other within its mediating narrative and an empowering intent, spelling out the need for better guided interactions amongst the various groups; new coalitions reshaping people in/and environment within redefined sustainable cultural, political and economic patterns<sup>61</sup>.

Popkewitz, 1991 illuminates a developing instrumental rationality such as this by arguing that:

*the professionalisation of knowledge, a millennial vision, possessive individualism and decentralisation as state steering combine to provide the rules of discourse. These rules, however, embody tensions and contradictions as they confront the multiplicity of social relations present in schools (developing community social processes). The millennial vision and the belief in possessive*

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<sup>60</sup> This is a key process within the empowerment rationale developed in the research.

<sup>61</sup> I could not help the thought that the apartheid that we had muddled through in diverse contestations, had not, within my experience, ever managed to construct anything as refined and explicit as this for its social engineering of separations. Following this, I sought a more detached vantage point within the Eliasian notion of a balanced and shifting 'oppression' shaping who and where we are with the struggles we are engaged in.

*individualism assume that a common framework of experience exists for all people and that this experience involves fixed goals. The challenge of reform is to identify the most appropriate means by which to attain these given ends, as well as strategies to increase the effectiveness and coordination of programmes.... The reform discourse has little to do with relating means to ends but has instead become a moral domain in which the means have become the ends (Popkewitz, 1991:154. My brackets).*

The 'symbolic violence' of the research process serves to map the territory within the orientations and dispositions of the institute, capturing its ideals in the report. Of this Popkewitz comments:

*While establishing a political agenda for elites, the reports provide a symbolic canopy under which specific interest groups within schooling (Environmental extension) can pursue their particular ends by ascribing them to the society as a whole (Popkewitz, 1991:162,. My brackets).*

In concluding synthesis the project states:

*Giant's Castle Game Reserve and Kosi Bay Nature Reserve are two of many protected areas in Natal, but their different histories, natural resource bases, surrounding populations, managing agencies and associated extension programs make particularly relevant **research findings common to both areas.** Amongst these are the pivotal role of **an institutional framework** for protected areas-neighbour interaction and the need for additional skills and resources, such as those possessed by **outside agents, to be brought to the process** (Davion, 1995:102. My bold).*

The research closes with this claim that history, natural resources and people involved in mountains and a coastal wetland all fit within a common reshaping rational framework. And of course they do here because of the meshing of moral imperative and developing rational framework within the research process. To say otherwise would invalidate the principles, models of process and the grand map of institutional arrangements for sustainable living around which the whole story was constructed. With a third-party mediating posture one gets a developing assumption that the detecting and mediating of interacting contestation amongst reserves and neighbours is the people-driven clarifying route to social justice and sustainable living spelled out in the research. On the political symbolism of this rational ideal Popkewitz states:

*And there is national consensus about what is right, both legally and morally. Debate and conflict emerge as a means of determining the best avenue by which to achieve agreed-upon ends.*

*Social process is seen as the transition from our present imperfect society, with its lack of purpose, pride and coherence, to one of moral unity, wealth and freedom (Popkewitz, 1991:158).*

The rational reform process examined by Popkewitz in education in the United States has a surprising correspondence with the researched structures and processes for sustainable living proposed for South Africa. This is not simply a matter of a foreign researcher doing the project or a good example of the colonising symbolic power of globalizing ideals of civil society and community participation in conservation, that might accompany international interchange or donor funding. These may have a minor role here.<sup>62</sup> More noteworthy is, however, a surprising correspondence amongst the developing narrative and long term civilising turns. A key thread of connectivity here is a slow reflexive turn shaping an increasing concern for the plight of others. A reflexive orientation implies an advancing romantic process where developing images of interdependence emerge as sustaining harmonies for and models of process amongst others to shape open-ended civilising imperatives. These open-ended processes emanate from a much earlier eighteenth-century obsession with primitive virtue (Schama, 1995:478) and an opening up of an internal world of reflection where we have come to reinvent ideals of human civil society and sustainable living, but not without problems, and at a differing level of synthesis that may be some way off. Long-term developing processes such as these have reshaped how we see and feel things within an individualisation and declining power gradient.

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<sup>62</sup> The researcher studied in the United States and drew on literature from there. Of note also is a fixation with Camp Fire ideas and an uncritical mixing of South African research on rural community perceptions, behaviour and cultural beliefs. Camp Fire is carefully qualified but copiously used in South African comparison and in the formulation of interpretative assumptions throughout the text. Odendal (1986) a text on conservation education and Zulu perceptions and used for developing a case for education by Davion, was criticized for *covert racist thinking* (Butler-Adam, 1986:1) and for seeing *education as some kind of tool that can be used to manipulate people's thought processes* (Nel, 1986:1) The Odendal research and that of Feldmann (1973) an American study in Virginia, and Brown (1994) are used to develop an individualised rationale for experiential education processes of empowerment through joint participation (conservation agency and local community) within a benign third party facilitation that slips in and out of the developing picture (Davion, 1995:11-12). The details of this particular case are not very important except in how it reveals a blending of diverse disembedded narrative in the construction of an idealised rational harmony for critical models of process in participatory social processes of emancipatory reconstruction through education.

These orientations were not apparent amongst humans within earlier social processes and at a differing level of synthesis long ago. In environmental education as an emergent institutional imperative within escalating risk, for example, a recent romancing of indigenous harmonies became a powerful reshaping process for people involved in modernist struggles within invisible risk from which there appears to be no escape. A developing involvement amongst humans within global donor and African research figurations reflect a shaping of institutional identity and models of process for a socially critical enterprise within a counter-stigmatization for restoring indigenous harmonies of sustainable living. Developing processes within the objective narrowing of a philosophical rationality amongst a detached scientific elite will be very different to the involved struggles of people in an around wildlife sanctuaries. If the former gathers strength by appropriating the mapping of social space the story will be different to the latter, less likely prospect in a society schooled in oppositions and second-hand non-experience control by outside elites.

## **vii Overview and synthesis looking back at longer term**

These three cases, as windows into a developing complexity of widening processes of environmental education, can appear entirely separate. They appear to stand independently as experiential fieldwork, curriculum development and reserve-neighbour interaction for sustainable natural resource management in and around protected natural resource areas. These separations are often strongly held and jealously guarded academic and institutional distinctions. Their rational discourses within these figurations frequently obscure a location of each case within a broad developing synthesis and with threads of interweaving that reach back into the long-term.

The first case is an overview of a small functional unit and some of the shaping struggles within developing axes of tension. The story develops as it reaches up within a more wide

ranging developing process at a national scale to contest prevailing notions of environmental education amidst rapid regional social change. The 'earth-love' curriculum within and eventually against this, was played out in a developing wider story, influenced by the power of harmonising spirits within individuals experiencing webs of complex risk on a global scale. More, recently, following rapid social change in the region, imported spirits of sustainability lost are merged amongst residual spirits of difference, separate within academic research as a tool for reshaping institutions and a rational model for establishing a new order of social control.

Within this developing story, all three have come to reside in the present as models of teaching and learning in field centres, a national specialist model of process for curriculum development and an imperative to shape neighbour relations policy and social change for sustainable living. All are disembedded from discourses in/on daily life but seek to impose within these experiences, specialist professional models of process with defined boundaries that are fiercely contested within the escalating risk and rapid social change enveloping the area. All have within their intermeshed and widening interactions, developed as separate amongst contesting political sociologies seeking the right to draw the maps for shaping controls within the social space of others.

This has been the right of past kings in community consensus, colonial government dressed up as benevolent overlord and the apartheid state as an equally effective ideological social engineer of opposites separated. In our current democratising break from these, the sedimented myths of all three reside amongst contesting figurations of experts competing for these rights to enable others to control themselves in more sustainable ways.

To do this, diverse development and education professions have now come to seek to empower a reshaping of others by facilitating them to perform to, and to conform within, objective models of process. And the struggles to define and enact these detached harmonies continues

within a broad levelling of the power gradient.

Expressed in these terms, the interpretative images are not overt critical judgements of these developing processes but images of fact within emergent political sociologies of contesting environmental and development education professions today. Revealed is how developing figurations of professionals have come to interpret things within developing processes and to develop detached harmonies, a symbolic capital of objective models of process defended as developing field of expertise, shaped and sustained within appropriating narratives in opposition and seeking to colonise and sustain themselves in public social space.

Lost in this picture is an imbedding of ideas amongst others in the everyday. Created is a sense that things sustainable reside in individuals in a present, detached from the developing and open-ended synthesis that has shaped things within processes of continuity and discontinuity, in changing patterns of interdependence and a slow levelling of the power gradient concurrent within a receding of apartheid processes into the 1990's. Within this shifting social landscape, environmental education in schools, field centres and from nature reserves, were changed within a web of interactions tending in the direction of continuing specialisation, faltering at times and undergoing reorientating separations within the shaping processes of state and academy as discussed in the previous chapter.

The developing pattern and wider picture behind and within this complexity can be impregnable owing to the powers of academic conventions, institutional detachment and an elevation that develops strong feelings in an individual moral imperative, located and held together within these. This is not unlike the strong webs that bound people within earlier tribal social figurations<sup>63</sup>. This is difficult to picture and can be very unsettling for some unless seen within developing intergenerational processes that shaped our location in the challenges of the day. These patterns of process that shape and connect us amongst others in/on the land might

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<sup>63</sup> The tight, closed fabric of involving myth is similar but people and situations are very different.

best be seen within the shaping processes in the long-term, much of which will always remain beyond our grasp as individuals within a field of objects in the present.

At this stage I must reiterate that my concern is not to judge the merits of these developing perspectives although there is a clear direction emerging within this interpretative discourse. What I hope to show is, in fact, an open-endedness of things and how myths and spirits have become a means for outsiders to hold the professional power to draw the maps of others to their image and likeness. In this way spiritual turns in the stories of the past have become the symbolic capital for contesting the terrains of the present.

**PART SIX**  
INTO THE  
PRESENT



## PART SIX

### INTO THE PRESENT

*The previous chapter has already taken the story into some of the clarifying struggles of the present from which it may be possible for us to look back over and into the intergenerational processes which have shaped us, our surroundings and where we are today. Still lacking is however, a closer look at the social realities and struggles in/of a world of risk in the present.*

*Chapter 11 tells a story of Milky Madness, a developing process of environmental problem solving that happened towards the end of this study and challenged prevailing perspective in/on environmental education. The story as a window into some of the open-ended and shifting intricacies of developing relational dynamics, is also an attempt to meet the Eliasian challenge of locating a discourse in the present and engaging in everyday social struggles looking back into the long-term. Elias sought to avoid nihilistic turn and to move sociological enquiry beyond static propositions mediated by external philosophical objectivity into the of human social experiences illuminated within a long-term view of developing processes.*

*The Milky Madness experience of water pollution enabled me to reflect in an encounter with risk and to explore the open-endedness of social processes. The story is told as it developed in the company of my children and those who entered the web of relational dynamics within the unfolding narrative, often from beyond our sense of the processes within which we were intermeshed. This experience suggests that within a developing modernist purposefulness we have tenuous hold on the webs of processes within which we are interwoven. Some of these processes are revealed by chance as the story developed but our grasp of the long-term and a wider picture is merely what we constructed together, often lost in the present and the heat of pressing events.*

*The experience of social processes in a developing present became a tool for reflecting on the emergent notions of environmental education in the study and those encountered in responses amongst friends working in the developing field. The critical opening-up of things and their concurrent loosening-up within process images of developing relational dynamics shaped my current sense of environmental education; an open-ended extension of an age-old, human potential for differentiating a more sensitive grasp of ourselves in/and our surroundings. We might thus be able to get a sense of what is going wrong to steer a reshaping of ourselves in the company of others in the hope of reducing socio-ecological risk in a world with, at times, limited possibilities that we have to face together. Elias states that:*

*The problem is how to lower dangers and to raise self-control and danger control amongst all concerned at the same time (Elias, 1987:111).*

*This part of the study adds a further interpretative dimension to an emergent grasp of developing processes of environmental education in eastern southern Africa examined within the story thus far.*

*Chapter 12 is an interpretative synthesis and reflections on the developing study in an attempt to draw together an open-ended sense of social processes of environmental education for my continuing work in the region. To approach this task I retrace the story within one tread that reaches into the challenges of the present out of the long term. This, a story of changing relational dynamics amongst people, the cabbage tree, dassie and eagle concludes the study with an open-ended vision of developing challenges on a terrain of continuing risk in the company of others.*

## Hiking, climbing and investigating river pollution problem\*



\* 1. Ross and a friend hiking in the Rietspruit. 2. Kyle climbing the pinnacle. 3. View of the valley from the top. 4. Sampling bottle and sludge. 5. Tunnel drilling site. 6. Silt traps. 7. Conveyor belt with site manager at newspaper interview. 8. Sewage outlet sampling. 9. Otter problem, a bit of an after-thought.

## CHAPTER ELEVEN

### **Milky Madness: A story of environmental action**

*Above all, Elias believes it is 'dangerous for the wheels to grind without corn.' Concepts and theories take place most fruitfully when they are developed while grappling with evidence of actual social processes (Mennell, 1989:270).*

The previous section takes the study into the present in an examination of a developing field-centre, a contested curriculum process and the political sociology of a research process on reserve-neighbour interaction. This chapter is an account of a case of water pollution and in it, as player and commentator in the company of others, I give attention to the webs of developing processes and the relational dynamics. In the story I give an account of these and find myself reaching for a wider and deeper developing complexity of social process that is and must remain beyond sight. This exposes us in our human condition as actors struggling to shape our world but with wider shaping processes, in us and taken for granted as well as outside and also beyond our reach, having a pervasive influence within the open-ended story within which we play and write our accounts. The contribution of this developing story of social process is to give further perspectives as sensitising concepts for reflecting in/on the developing field of environmental education in the region, and in southern Africa as a whole.

#### **i      Introductory remarks**

This story was written in, and after, the events. The names are the same but the spelling might not always be correct. The account is an attempt to reveal some of the subtle, shifting and diverse social processes within a case of environmental action in response to pollution in a river near my home. It is, as far as I can make it, a faithful account of what happened as experienced in the stream of events as they unfolded, and as I came, interpretatively, to look back on them some three weeks later. The story has been written to explore some of the social realities of this

case of environmental action and to reflect on how current orientations to environmental education might accommodate or resonate with the experience.

The story is about an environmental problem that we stumbled into, and have stumbled around in, for a few weeks now. The account starts with some personal background and then looks at the events amidst the twists and turns of a busy work programme during which I took some time out to write this down and to reflect on the experience.

## **ii Background and our initial encounter with the problem**

From time to time I neglect my family, and they are usually very understanding. After months of neglect, owing to an involvement in a (this) particularly demanding research project, I was finally able to drop everything on a Saturday morning and go hiking with two of my sons in the Umgeni Valley. The idea was to hike and climb in the Rietspruit, a lovely isolated stream with high sandstone cliffs and waterfalls.

We started out at 7 am on a brisk day as the early sun burnt away the last of a light frost. Laden with climbing equipment and a picnic lunch we headed down into the valley and backtracked up the Umgeni River for a few hundred metres until we came to the Rietspruit. To our surprise the river was a milky grey and devoid of its usually abundant water life.

My guess was that the problem had something to do with the newly started Midmar Tunnel Project that was being dug at the head of the valley and through the Hilton range for a new water pipeline to supply Pietermaritzburg and Durban. We decided to hike and climb up the Rietspruit as planned, but then to continue upstream and out of the Umgeni Valley so as to investigate the problem. As we walked further and further up the river climbing the waterfalls and crawling through the odd thorny thicket, the pollution of pools and algae clad rocks got worse and worse. We examined how some of the algae had started to die back, suggesting that

the siltation had happened over an extended period of at least a few weeks.

### **iii Adventuring along the way**

Nearing the head of the valley we came to some towering cliffs which we called the Rietspruit pinnacle. To the left was a steep scramble and to the right a vertical rock wall. You can imagine the way my teenage sons took me. Kyle lead the climb up a vertical crack in the rock face. Ross followed, taking out the 'pro' (protection) that had been placed in the cracks and I was to climb up last of all. I survived both pitches of the climb, learning and inventing a lot of colourful language, and experiencing new levels of terror and elation every step of the way. Once at the top of the cliff, I finally dared to look down when securely tied in with 'slings and crabs' to 'bombproof pro' made up of 'nuts, chocks and friends.' To the left a milky river unfolded beneath my feet, and to the right, over the silt encrusted upper waterfall, was the tunnel site.

After the final scramble when I insisted that we remained roped together, I walked ahead to recover from the sheer terror of being perched so high above the earth. The boys packed up the climbing equipment, caught up with me fairly quickly and slowed to my pace. We continued to walk through a well conserved pasture with a lovely little wetland and I commented on some masterfully reclaimed *dongas*.

### **iv Experiences at the tunnel site**

As we approached the tunnel site the hum of machinery increased. We felt somewhat like intruders who might be challenged at any moment but were fairly confident in our quest when we found milky water bubbling up from under the last of three silt dams. These had obviously been designed to trap the silt but were not doing the job particularly effectively. What I took to be a sand filter was also only half completed.

We wandered around the site for about 15 minutes looking for someone to talk to about the problem. These wanderings led to our discovering another problem area, a conveyor belt that dumped tailings in huge piles before this gravel waste was carted away and dumped in a large quarry. Erosion on the stream banks marked where white gravel and silt had flowed into the Rietspruit.

We eventually found some labourers who were eating their lunch in the sun and they directed us to a clerk in the upper office. He listened and offered the phone so that we could talk to Mr Lawrence, the local water engineer whose telephone number was on the notice board behind him. As I dialled and the boys dumped their packs outside the office, a works foreman arrived, so I hung up and told him the story. He said that his job was carting away the tailings so that I should phone the Umgeni Water to report the problem. I dialled again and spoke to someone at the Mill Falls Water Works. He gave me another number so as to phone Tiny Lawrence at home. A friendly voice answered and asked to be excused whilst he switched off the hose pipe. He was outside watering the garden. Mr Lawrence was helpful and somewhat surprised at the story. He said he would contact his superiors and get someone out there right away.

#### **v An initial confidence and inside information**

I now felt confident that the problem would be resolved and the boys were proud of what we had done. Prior to this they had been somewhat anxious, twice suggesting that there was no body about so should we not just go home and phone Umgeni Water to report the problem.

With the uncertainty behind us, Kyle dug in his pack to retrieve some rather squashed cake and we passed around the water bottle. The dump foreman also relaxed, declined the offer of cake and we had a friendly chat. He had been rather severe and reserved to start with but he soon began to thaw out. We talked about the climb and the silt problem. He gave us more

background and inside information on the problem.

He had been watching and things were not being done right but who was he to say anything. We had seen where the silt was flowing out of the settling dams but the worst problem had been the conveyor belt from which all sorts of muck had poured into the river for days. He knew his job from years of experience but the engineers with their fancy computers were not doing it right. But who was he to say. It was their problem and he could say nothing but he saw what was happening. Now that others like us knew and it was doing damage to the river in the nature reserve they would have to sort out their act.

#### **vi Growing doubts as we hiked on**

We thanked him for the help and hiked a further five kilometres to Jim and Liz Taylor's house. From here we hoped to get a lift home to Howick. As we walked we had sight of the access road across the valley. I expected at any moment to see Umgeni Water arriving to solve the problem. There was a new bounce in our step as we speculated about our good deed and how Umgeni Water would be there to sort it all out in no time at all. Doubts began to creep in when, about an hour after our call, there was no sign of anyone arriving at the tunnel site to investigate the problem. The old man must have been right and they knew all about it but had simply gone home for the weekend. We turned off the road and into the Taylor's to telephone the newspaper and to get a lift home.

#### **vii Informing the press and sharing the adventure with others**

Jim and Liz were just finishing lunch and we told them of our adventures. Our next step was to

phone the press to tell them about what had happened and that we had reported it to Umgeni Water. The Witness, a daily newspaper had closed and there were no reporters there. Eventually I got a machine operator in the print room and he said that they always shut up shop on Saturday because they do not produce a paper on Sundays. Next I phoned a Sunday paper but the deadline was approaching and the reporter said that she would look into it next week. After one final call to the duty staff at the Umgeni Valley Nature Reserve to also tell them what had happened, Jim gave us a lift home and we were able to share our adventures with family and friends.

I was blamed for squashing the cake when I got stuck in a crack on the first pitch of the climb. With a pack on my back I had got firmly wedged in the crack. To extricate myself I had gingerly to take off the pack without looking down and then to toss it up onto a ledge from where it could be retrieved after I had climbed over the crux and onto the ledge. The river pollution problem was also shared and we were confident that Umgeni Water, with the press looking on, would solve the problem.

### **viii The morning after the hike**

After the exertion of the hike I declined the invitation to climb at Corner Cafe the next morning. My aching limbs made all but a short walk beyond me. So as not to stiffen up entirely I continued with the project of building a climbing wall in our garage. The boys wanted an overhang added and I had been promising to do the job for weeks.

The story of our adventures was recounted again when we had guests to lunch and by this time I had become the brunt of many of the jokes. I gave as good as I got and all in all it had been a lovely family weekend. I resolved to make more family time in my busy life, knowing that this was unlikely for a year or so.

## **ix Back in the office on Monday**

The next day I phoned some friends at Umgeni Water to tell them about what had happened and to check up that something was being done. Steve Terry was the man to talk to. It was encouraging to be told that he had heard all about it and that a meeting was to be held on site with the tunnel contractors that very morning. I told him the whole story again. By this time it was a string of clearly spelled out events, observations and issues.

He told me that turbidity was not an issue of any significance. I had my doubts but did not press the point. He said that it was suspended solids that was the important factor. The contractors were entitled to discharge 25 mg per litre. They had, however, far exceeded this having unexpectedly hit ground water in the dolerite rock through which they were drilling. I added that that was a lame excuse because geologists and tunnel engineers do not drill under sandstone and dolerite hillsides without expecting to hit water.

He would flush the system with raw water to get rid of all of the silt. This would restore the river. He would then see that the silt dams and conveyor belt problems were corrected. Also, an assessment of the extent of the impact on the river life would be done and the system would be closely monitored to ensure that the problem was solved and did not develop again. What more could anyone want? Problem solved and we had an environmental problem solving success story.

It is from this point on that many differing stories and social processes started to develop and to become interwoven. My story continued, I was being told stories by others involved and some of the stories that they told each other came back to me. This and the complex processes in and around it is what started to capture my interest and led to my writing down this account of events.

## **x Monitoring the river**

Chris Dickens had the job of assessing the magnitude of the problem and he sent out a monitoring team first to the tunnel site and then into the Umgeni Valley. They assessed water life above and below the tunnel site and above the confluence of the Rietspruit with the Umgeni. The area of greatest silt deposition was, however, between the waterfalls, a rugged section of the river only accessible on foot. The two hour return journey to this area meant that it was not monitored.

## **xi Problem solving at the tunnel site**

While the monitoring was being done, the site meeting resolved to put in drainage sumps to redirect waste water from the conveyor belt to the settling dams. To reduce the silt outflow, an effort would be made to flocculate the settling dam system. Flocculation is a chemical treatment that stimulates fine silt to stick together into bigger particles so that it sinks to the bottom thus clarifying water. Experiments would be done later in the week to work out a routine way of doing this, once the immediate problems had been rectified. There were penalty clauses in the contract for failure to abide by environmental standards so there was good reason for the developers to clean up their act.

## **xii The media on Monday**

Eco Vision, the youth TV programme, phoned looking for material for their programme. They might have a TV crew in the area and would like to report the Rietspruit story. Umgeni Water

was a little worried about the prospect of national TV coverage but I assured them that it would be a success story judging by the planned actions that were to be taken to resolve the problem.

The Natal Witness news editors were in a meeting when I phoned to follow up on the Saturday phone call. A reporter said that they would look into it and see if there was a story to tell the public.

### **xiii Umgeni Water Public Relations**

Derek Hawkins, the PRO for Umgeni Water, phoned to ask what had happened. I told him the story, most of which he knew already from the other staff I had talked to. He confirmed all that was being done.

"How did the press get to hear about it," he casually asked.

"I don't know," I lied, "The press is usually pretty quick to find out about this sort of thing. I told them what I have told you and how your scientists are sorting it out."

This response was a spur-of-the-moment thing. I don't know why I lied except that the press had asked me if they could quote what I said and my response was, "No, not unless it is necessary. You look into it and tell the story." I did not want a sensational story in the press. I thus thought it better that they investigate and report on what happened and what was done to sort out the problem. I had been working with Umgeni Water on low-cost water quality monitoring for a number of years and did not want to sour my working relationship with them. At the same time, I was not going to compromise the environment by not taking a strong stand if they did not sort out the mess.

The thought of a TV crew worried him but I mentioned that it was only a children's programme and that it would be a fine example of a success story, especially if the film crew arrived in time for the flushing of the system with raw water. This, apparently, was not much of an assurance

and he prepared to deal with the press. The TV crew were called out on other tasks and, despite two assurances that they would probably be able to include it in one of their weekly shoots, they did not contact us again.

#### **xiv Flushing the river and follow-up with the press**

At 4 pm I was given a telephone message that the flushing would probably be done at 3 30. I thus phoned the editor of the Witness to find out what had happened and to ask if he had covered the flushing. He told me that Umgeni Water had telephoned and had also left a message but that he had been busy and had not even allocated the story to a reporter. He immediately transferred my call to a reporter and gave her the messages and notes on the story.

By this time the problem seemed resolved and I was rather tired of how the whole issue intruded into my working week. I did not relish repeating the story especially when the voice on the other end of the phone appeared tired and disinterested. I subsequently determined that her detached disposition may have been because she was trying to read the news brief and attend to me at the same time. Despite my negative disposition I repeated the story in a somewhat shortened form and the journalist said that she would contact Umgeni Water.

#### **xv Flushing failure report**

The next morning Steve Terry telephoned to say that he had tried flushing the river. He reported that, "two pulses of raw water from the Midmar pipeline had been released to flush the Rietspruit system." a discussion on the detailed effects of the flushing led to a report that, "The flushing may have done more harm than good as the force of the flood waters stirred up old river sediments and sent these down into the Rietspruit." to be positive and to compliment him for an honest effort I added that the flood would, however, have carried away some of the

lighter sterile silt, a desirable thing for filter feeders. It may also have deposited some fertile river sediment over heavier sterile deposits. It had been a good shot. He seemed pleased with this reaction and concluded that he would, "give attention to reducing sediment outflow by flocculating the settling dam system."

#### **xvi Water life report back**

Chris Dickens phoned an hour later with some better news. The finding was that water life had declined by about 25% but was still viable. This data suggested that there had been an impact but that the water life would fully recover as the water quality was restored within the next few days. The results were, however, difficult to assess because there was no earlier data for the Rietspruit. The best he could do was to compare the populations with those for a similar river nearby. Again things were looking good. I commented that this was good news and far better than I had thought but that the inaccessible middle river system which had been most severely sedimented had not been monitored.

#### **xvii Report to the paper**

The next evening the reporter phoned to say that she would fax the draft article through to my office. The idea was that I looked at it and gave her comments the next afternoon. On Wednesday morning true to her word, the fax was waiting for me.

Draft article faxed 01 August 20:12.

*CAP: Steve Terry holds bottles showing samples of the water in the Rietspruit system after sediment drained in from the Midmar Tunnel and after flooding had been done to dilute the silt. Picture ELAINE ANDERSON.*

*Sediment which drained into the Rietspruit near Cedara from the Midmar Water Tunnel which has been commissioned by Umgeni Water was diluted and flushed into the Umgeni River this week. The sediment which according to the Public Relations Manager at Umgeni Water Derek Hawkins, has a*

colouring effect but is not toxic, "has been dealt with to a large extent."

A high-powered tunnel boring machine which is being used in the project which has been contracted to a joint-venture company formed between a Brazilian construction company, Construction Norberto Odebrecht and South Africa's Wilson Bayley Holmes has an extendable conveyor belt on which the extracted material is removed from the tunnel.

The resident engineer from Keeve Steyn who are the consulting engineers for the project Scott Taylor said that "groundwater was hit in the tunnel when boring was taking place through very hard dolerite. A fine dust sifts off the conveyor belt on to the floor of the tunnel. It was picked up by the groundwater and went over the bank of sediment, bypassing the filter system which works efficiently."

The filter system consists of three dams with a filter material through which the dam flows. According to Taylor, "about a month ago the water coming out of the treatment system was drinkable, but the fine sediment coming through now goes through the filter system so it will have to be chemically removed."

On Monday a small artificial flood was created when a scour valve was opened and a large volume of water from Midmar Dam sent down the Rietspruit which resuspended the settled material. Pollution prevention scientist at Umgeni Water Steve Terry said that "this would flow into the Umgeni River where there is enough water to dilute the water completely. If the water stays suspended it doesn't cause a serious problem by blanketing itself on the rocks."

Terry said that there are still aquatic organisms living in the Rietspruit down stream of where the sediment flowed into the river so "it hasn't killed them all. The material settled on the stream bed and covered the vegetation which would have an effect on the organisms that normally rely on this vegetation."

However, Howick resident and Natal Parks Board employee Rob O'Donoghue who saw the milky water on Saturday said that "all life in the rock pools had died due to the deprivation of sunlight and algae had started to die from the silt."

According to Hawkins the level of suspended solids were about 20 times higher than they should have been and have now been reduced to normal and waste is now being diverted to the settling dam system.

Umgeni Water and Keeve Steyn are now working on further control measures which will reduce the amount of dust in the water. One possibility is a flocculation system in which chemicals will be added to attract the suspended solids and they will be removed. Tests are currently being done on the water to determine the viability of the system at the site and this coagulation system will probably be implemented soon.

The draft article, in subtle ways, contradicted much of what I had been told. It appeared that we were being fed the good data but that I had been able to delve into the detail about flushing failure and other problems on the construction site. I had not been told that the sediment loads were 20 times higher than they should have been. The issues were not fully shown, reported or explained to the young reporter who had little ecological knowledge. She thus simply reported what she was told by the experts who were playing the game of minimising bad press by being totally honest and not hiding anything, a social process which I judged to be a form of 'strategic transparency' where 'if they think it sounds ok don't enlighten them that it isn't.'

Before talking to her at 4 pm when she was to be in the office, I telephoned the Sunday Tribune environment reporter. I got her on a cellular phone. This was the first time I had ever dialled to a cell-phone and I was not sure how much it was costing me. She reported that Umgeni Water had contacted them and it seemed that the problem had been solved. She said she would contact another reporter who had spoken to Umgeni Water and if there were any sensational

developments they would send up a team to investigate the problem.

This experience raised questions about much of the schools water quality and conservation project work has been subject to sensational reporting. For example "Kids Outdo Expert" in The Volunteer Monitor Vol 7 No 1 Spring 1995. This gets public and expert attention and has been instrumental in popularising water quality work in schools, not a bad thing. I had images of sensational headlines like 'Otters whitewashed in Rietspruit' or 'Kids climb into Umgeni Water for making milkshake of local river.'

These images stimulated me to play the reporter and to write up the story for an imaginary newspaper. This opened up the realisation that metaphorical imagery and reader appeal go hand-in-hand with accuracy of facts and events. Newspapers seem to thrive on contested opinion and pounce on this, tending to make sensational conflicts out of exploratory differences of opinion or perception. These their readers consume with breakfast, tea and at other breaks / meals every day. Playing with these ideas I wrote the following article over lunch before talking to the reporter in the afternoon.

*Instead of a sparkling stream, the O'Donoghue family found a river of milky muck when on a hike up the Rietspruit in the Umgeni Valley Nature Reserve on Saturday morning. Rock pools which are usually crawling with water life were blanketed in a fine white silt and the river system was on the way to becoming a lifeless milk shake. The source of the problem turned out to be sloppy engineering and an apparent design hitch in the Midmar Tunnel Project.*

*What appears to have happened is that the pulverised rock from the giant drill is so fine that much of it passes through the sediment dams and into the river. Also, the extracted crush was wetter than expected. No containment dam or drainage sump was included in the design of the discharge area and the slush ran down the bank and into the river. Despite these problems the drilling went ahead, the Rietspruit was turned into a giant 'milky way' of sterile powdered rock and all of the engineers went home for the weekend.*

*Rob O'Donoghue, an education officer with the Natal Parks Board reported, 'When we arrived at the drilling site no engineers were there and it appears that the problems had not been reported to Umgeni Water. We did so at lunch time on Saturday and the engineers met on site two days later to do something about the problem.'*

*He complimented the Umgeni Water scientific staff for their rapid and professional response when they were told about the problem on Monday morning. Unfortunately, their efforts to flush the river system with raw water from Midmar did little more than turn the 'milky way' into a chocolate milk shake. Old sediments were churned up and the colour of the Rietspruit discharge into the Umgeni River was grey-brown by Tuesday morning. On Wednesday the milk was still flowing, the scientists*

*were flocculating in the containment dams and most of the animal life had left the river.*

*O'Donoghue added, 'This mess makes a mockery of expensive environmental impact studies and reduces the fancy donga reclamation work undertaken as part of this project, to little more than window dressing. If this sloppy engineering had happened on another development project, Umgeni Water might well have done some serious 'kicking of butt. 'Now they are doing their best to patch up the problem and to cover butt. With better planning and more careful monitoring the engineers and Umgeni Water could have stayed out of the dairy business and need not have soured up the Rietspruit.'*

*Rob encourages other members of the public to visit 'The Milky River of the Midlands.' It is in a most beautiful and secluded valley with waterfalls and wonderful bird and animal life. The pollution problem is unlikely to disappear by the weekend so why not bring a picnic lunch and enjoy a hike in the Umgeni Valley. Simple water test kits will be available at the office if you would like to search for the tough water animals that are surviving the milky madness, a problem that could and should have been avoided. The Wildlife Society office opens at 8 am and the nature reserve is open all weekend.*

This served to draw together what had happened and to put the whole story into some perspective for myself. A frustration with the interplay of conflicting stories amongst scientific, engineering and public relations interests gave rise to the second last paragraph. This perspective worried me when, after a lengthy conversation about the draft report, I somewhat impulsively faxed my story through to the Witness reporter.

I was impressed by the article that appeared in the Natal Witness two days later. The young reporter in her first year out of journalism school and in whom I had so little faith was in the right career and good at her job. The report frustrated and angered many of my friends at Umgeni Water. Those who contacted me said that it was fair comment but my neighbour, a director at Umgeni Water was stone-faced and did not return my wave as he passed on his way to work whilst I waited on the roadside for the Natal Parks Board bus in the morning. Derek Hawkins also later told me that another senior engineer wanted to phone me to share his displeasure when he read the newspaper article.

## **xviii Contact with Umgeni Valley Staff**

In the course of my work during the week following the discovery of the pollution in the Rietspruit, I also interacted with the staff of the Umgeni Valley project and we came up with

many ways that visiting schools could monitor and report on the problem. My comment to Malcolm Powell, Director of the Umgeni Valley Project, was that if nothing else, the article might bring in some visitor income for the nature reserve. The weather on Saturday and Sunday was, however, extremely windy and cool, discouraging all but the hardiest of hikers.

The initial reaction of the duty staff at Umgeni Valley was shock that such a thing should have happened,<sup>1</sup> but there was a confidence that Umgeni Water would sort it out. One member of staff took a group down to look for water life and found none. Another noted that the milk was a grey-brown on Tuesday and then back to milky on Wednesday and Thursday. With the Umgeni Water Scientists monitoring the situation there was no move to use the GREEN water quality materials to do an independent assessment, although Wayne and I did discuss this later in the week. We also looked at possible activities children could do to develop an understanding of the ecological implication of the pollution. At this early stage none of us thought about the otters and how pollution tends first to impact on animals that are higher up the food chain.

That I had contacted the press and might stir things up was a worry to some staff who worked with and had friends at Umgeni Water. One suggested that I simply drop it and get on with more important things. The scientists would sort it out. I was getting on with more important things but was now hooked into thinking about social process within this case of environmental action. I thus started to think about earlier environmental actions that I had been involved in, and to talk with other environmental educators about their action experiences. These included things like recycling in the home, gardening, what they bought and in which shops, how they taught and practical issues that they had been actively involved in. This gave me a lot to reflect on as I groped and grappled my way through their accounts in light of my own experiences and the way they thought that environmental education should be approached in the country.

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<sup>1</sup> Tim Wright, the manager of the field education programme at Umgeni Valley, later told me that there had been a minor pollution incident some months earlier and that he had contacted Umgeni Water who got back to him saying that it had been sorted out.

## **xix Other pollution from the Midmar Tunnel**

On Friday evening a concerned resident of Merrivale, the farming area adjacent to the Midmar Tunnel, telephoned to say that he had read the paper but we had made no mention of a third site that was polluting the river. He described a large plastic pipe that was discharging a white liquid into a tributary of the Rietspruit above the main gate into the development site. On Saturday we met on the road outside the gate, he with his young daughter on his back. We had a back pack containing sterilized 2 litre coke bottles and a water test kit. He showed us the 50mm pipe that was discharging a steady trickle of white liquid some 50 metres from a dry tributary of the Rietspruit. It was evident that the discharge had been considerably greater at times so we took a sample before following the trench up the hill above the tunnel site. Half way up the hill we found an open pit full of the sewage and waste-water discharge from the labour accommodation.

People began to notice that we were taking photographs and the guard on the gate appeared to contact the office on a hand-held radio. Not long after I noticed this, a member of staff appeared over the hill. He told us that the pit had filled up and that they were trying to rectify the problem but could not get a pump up the hill to discharge the contents into a sewage disposal truck. This effort to resolve the problem was encouraging but the pit had obviously been full and discharging for weeks.

We walked down to the river and took another sample from a pool just below a wetland reed bed that had become activated by the nutrient outflow. The pool also had pyramids of the white discharge on the left bank, evidence of the earlier prolonged discharge of silt directly into the stream. I tried to take a sample but all I managed was to stir up the silt so that it went into suspension. It slowly covered the pool in a misty silken shroud. This was a truly amazing sight that I photographed for record purposes.

Rob, our friendly informant, told us that some of the locals had started to use the rock waste to make driveways on their farms. Mixed with a little cement the crush made an excellent and highly durable surface. The crush was very useful to the locals and they were reluctant to sour their relationship with the developers. This issue, and uncertainty about what the pipe was discharging, was why he had not taken action earlier. We gave him a water kit so that he could come back with his children and continue to monitor the river. He was really a nice guy.

I subsequently found out that some of the local residents were angry with us for taking the developers to task as this might curtail their access to the waste. When Kyle, my son, was at the science Expo in Durban some weeks later the student next to him was the son of one of the developers. He talked of "bloody environmentalists who caused problems because of some silt in the river. Silt from erosion is a natural thing so why was it such a problem." To his surprise Kyle told him that he was talking to one of the environmentalists. They talked it over and became good friends for the two days that they were neighbouring exhibitors.

Once we had the water samples, we paged Steve Camp of Umgeni Water. Steve worked with us on Green water quality monitoring and he was at the office on Saturday morning. He arranged for the labs to analyze the samples. They must have been bad, as I was never given the results. This affirmed a feeling that the only results that I was given were the good ones. These were always honestly reported and accurate. This made me think that I had to get back to doing my own water quality monitoring. I had stopped because I always seemed to be giving my kits away to teachers and never seemed to have one when I needed it. Carmen, my wife also got a little tired of her kitchen being used as a laboratory.

## xx Otters disappear

It was on Saturday that we found out from Rob that three otters had lived in the pool below the falls. I phoned Dr Dave Rowe-Rowe, the Natal Parks Board otter expert. He was in bed with flu so could not come out to have a look. He told us that otters range on about five to seven kilometres of river so if two kilometres was lost to pollution they should be ok especially since the warmer spring weather had arrived and water life would start breeding again. We went to the office at the Umgeni Valley to check if water quality test cards and turbidity disks were available for visitors to monitor the river. Added to this we asked people to report any otter sightings.

An ironic turn of events came to light when Derek Hawkins phoned me at the office on Monday. He asked if it had been us who had been on site on Saturday. He also told me that the sewage pit had been pumped out by Steve Terry on Saturday afternoon.

Poor Steve Terry can't have been very pleased with us when he was up to his elbows in sewage on a Saturday afternoon while I was watching the rugby, and the boys and some friends were hiking and abseiling down the Rietspruit looking for otters and crabs. Neither otters nor their staple diet were found and no sightings have been reported to the office. The otters are probably ok, however, as they are very secretive and lie-up during the day.

On national television on Sunday, the day after the otter problem surfaced, an Umgeni Water sponsored video on otter conservation was screened for the first time. Imagine Derek Hawkins surprise when I told him about the otter story. It would have been a shattering sensation for a company that wanted to save otters, being implicated in their disappearance in the lower Rietspruit owing to sloppy development site management. The Sunday newspapers would have been up from Durban in a flash. I assured Derek that although some of the directors and developers might be angered at our activities and the milky madness article that we were all

friends of Umgeni Water, the Rietspruit and the otters.

Shortly after this a serious injury to my left index finger precluded any further contact with Umgeni Water, and the river, for a few weeks. The boys and some friends slept the night by one of the otter pools and there was much hilarity when Kevin slipped and fell, with his pack on his back, into a pool in the river. He was not hurt but his pack still has a white patch down the left side suggesting that there is more work to be done before the Rietspruit is restored.

When I went to collect them I walked into the valley with my youngest son, Peter. The Rietspruit was running strongly, carrying only slightly visible traces of the white sediment. The otters would probably still not like it very much but most of the other water life would soon be back, probably at better than normal populations owing to the increased and more constant flow.

My fear now is that the conservation work that is done after the completion of the pipeline will not be done properly. If the settling dams are not pumped clean, then every time we have heavy rain and for many years to come, white sludge will be released into the Rietspruit. Umgeni Water has invited me to visit the site to talk to the contractors but I will be away a lot this year. I thus approached Henry Ngcobo, a science teacher and friend, who has worked on a number of projects with me. He teaches in a school near the Rietspruit and is going to take up the offer of the tour for his class. The children will also monitor the river for the next year.

## **xxi Afterthought: So what could we do with the sludge**

As we were sitting in the garage and the boys were practising their 'moves' on the climbing wall, I raised the possibility that the powdered rock in the silt trap was as fine as the calcium carbonate powder that they used on their sweaty fingers to stop slippage when climbing. Kyle

said that one can buy powdered rock of some sort as a substitute but he had not seen it in the country. This led us to think of ways in which the sludge could be dried and powdered for use by rock climbers. This possibility is still at the level of a bright idea and we now have to find some time to look into it in more detail. Ross may do it as a project for the science expo next year. If it works the boys might be able to make money by selling it to other climbers. They could then buy some more 'friends,' 'crabs' and even a new 9mm rope. What makes you think that the pollution of the Rietspruit is a secondary interest amongst the younger members of our family?

## **xxii Some reflections on environmental education processes**

The Rietspruit milky madness was a rich source of experiences for examining emergent processes of environmental education from within a local case of action that developed in a problem we came across in everyday life. As I looked around from within the action, three broad and intermeshed orientations to environmental education were of note amongst those I met, and talked to, in the developing story:

'nature-experience / earth-love,' centred on individual experience for earth awareness, spiritual enlightenment and social change towards a sustainable world;

'socially-critical,' reflexive emancipatory activism for social accountability and change in a more just and sustainable society; and

'community natural resource management,' intermeshed rationally scientific and community problem solving for sustainable development.

These broad orientations have developed within social groups of specialists in institutions

predisposed to impose perspectives into situations of environmental action so as to foster change towards a more sustainable environment. The dispositions and the abstracted models they encapsulate provide little insight into the complexity and variability of human social process. All three orientations were apparent in different constraining ways amongst environmental educators with whom I spoke about the milky madness problem.

Many of the earth-lovers were emotionally shocked, spiritually wounded and also innocently powerless in some cases. They wanted to make the developers aware of the destruction of the river and to convert them to the cause of righteousness. Good would prevail, so let's get together with them. And it does, sometimes.

The socially critical were more inclined to get excited and worked up. 'The bastards! Let's nail them well and truly in the press and then facilitate the public to hold them accountable for clearing up the mess and being more transparent.' And they can win, sometimes.

Another rationality was more apparent in scientist friends who said, 'Let's get all of the role players together, assess the situation and put into place an action plan for rectifying the problem and monitoring the river.' And it does happen, sometimes. In fact, it did in this case. There was an environmental impact assessment and everything was worked out amongst 'interested and affected parties' before they started the multi-million rand tunnelling.

A lot of other people were a mixture of these, illustrating that environmentalism and the urge to educate others comes in many orientations that are pushed and shoved into different forms in diverse institutional settings. Schools have tended to come up with abstracted recipes of experiential and critical environmental education to prepare children for life and to change the world. Developers want to facilitate and empower communities to change, and scientific bureaucrats in our new democracy now want it all done in a participative, rational manner amongst, and by, the people.

These developing ideas are to be found in the social processes shaping institutions and people involved, and who are more-often-than-not removed from direct experiences of the developing problems. Within a specialist institutional detachment they construct idealised harmonies of sustainability to be enacted amongst others within abstracted models of process that might exact changed patterns of social control in surroundings, amongst others and within self. This is not a flippant point, but evidence of a developing paradox in specialist processes of environmental education that are driven by more and more strongly held moral imperatives and rational narratives of social justice. The experience of cases of environmental action that I have been involved in suggest that things are a lot more loosely coupled, unpredictable and, at times, difficult to pin down than processes of environmental education are currently able to grasp.

In many ways, prevailing curriculum proposals and models of environmental education are all too narrow, being the product of outside thinking by academics who are removed from the action. These dispositions are thus underpinned by utopian / rationalist ideologies or a structuralist 'ages and stages' dogma of child and environmental awareness development, for example. They have consequently come to be driven by external rational predispositions of how people should construct, or should, with facilitation, be able to work out for themselves, usually what the experts already know that others need or ought to be doing. Equally doubtful is the more recently popular position that we can't possibly know so we must facilitate and empower them to tell us and then we can help to ensure that they get what they really need to develop themselves.

As I looked at these developing processes of environmental education and their emergent orientations, it struck me that they are all linked within the story that has shaped the field and those involved in it. The nature experience, earth lovers were earliest, shaped within the twists and turns of wild nature ecstasies amongst groups of closely involved holistic spirits. Along with these, in opposite postures at times, came the rationalism of institutional science reshaping

of a spirit that sought measurement, data and strategic plan in any situation of problem or conflict. Next, and amongst both, was a developing moral turn, and an orientation of critical alienation where strongly held, rational imperatives to facilitate empowerment and to ensure social justice.

Seen together the diversity of emergent ideas was an outcome of institutional establishments where people with a detached grasp of things, increasingly sought to direct the civilising of others. This process image of the developing game reveals long-term civilising processes as these were shaped and shifted in the open ended trajectories both preceding and examined in the story followed in this study. Within a developing human condition, within windows in/on our world, we experience feelings/ideas that signify the intergenerational symbolic capital we shape through living in a world of risk amongst others. Simply put, within this continuing civilising, we are beginning to see ourselves and to feel the need to exercise greater self and social control to mediate the developing power we have to destroy our surroundings, others and ourselves.

Education as developing processes of civilising social control would seem to be a good way to do this. The journey thus far in southern African education, has been a long struggle amongst the passionate desire for civilising as *Christian National Education*, freedom from oppression through *People's Education*, to the more recent urgent need to reconstruct a more sustainable and just society through *Socially Critical Environmental Education*. It is ironic that the civilising trajectory of education should have been such a torturous journey and that as it has developed, environmental education should remain a separate concern in a continuing struggle for better education; a loose amalgam of nature experience, scientific fieldwork in the real world and problem solving that is critical of society, seeking justice and sustainability. Within a romancing of nature and the pressures of escalating risk we had little sense that our detached harmonies for reshaping others were mediated within modernist continuities and a narrowing objectivity. If developing civilising processes are to foster a meaningful love and learn shaping of ourselves, our children and communities of others in a more just and equitable world, we

will need a firmer grasp of how we were shaped within the developing perspectives we have come to share in environmental education today.

The developing picture, despite the ponderous circularity of struggle and shortcomings in many developing models of process, is very encouraging. I offer this in reflection as we still somewhat blindly lead and follow each other amidst moral turn, detached rationalist imperatives and romancing ideals of indigenous harmonies. These ecstatic compulsions of early socially critical perspectives of environment and development education, not unlike the earlier wilderness / nature experience dogma, are under increasing critical review.<sup>2</sup>

In examining developing processes and in bringing prevailing dispositions under scrutiny, I do not overlook the realities of developing patterns of social constraint and structure shaping these, but simply suggest that we may well need a healthy dose of scepticism within prevailing models of environmental education. A review of long-term social processes, such as this study, might bring features of prevailing educational dispositions into doubt and stimulate a good dose of pragmatism to help us to get on with the job without too many interventionist and constructivist circulating oppositions guiding us too rigidly. A shift away from unitary recipes in opposition and into the context of local action might enable historically informed processural struggle in the context of problems, enabling more in the way of a reconstructive critical struggle amongst those experiencing the problem in everyday life. There is a lot of this in the more recent literature on action research<sup>3</sup> but it all too often comes with a residue of abstracted ideological baggage<sup>4</sup> and with little sight of the long term that has shaped us and where we are

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<sup>2</sup> See Popkewitz, 1991 and Wagner, 1994a.

<sup>3</sup> Wals, 1995 for example as one amongst many and varied models of process under critical scrutiny and debate in environment and development education for more sustainable living.

<sup>4</sup> Of note here is a trend for environmental education to emerge as models of process within a discourse base of dialectic propositions orientated within abstracted postures of question and answer about the how-to of problem solving through strategic action in a civil society. These discourses can be rich and informing if they are drawn on in the company of others in situations of risk and within a critical sense of the developing long-term within which we are intermeshed; dogma reshaped as open-question and capital of ideas for critical review in context.

today. The process sociology of Elias offers an open question that:

*If it proves possible for people to observe the relations of elements in the process with a measure of detachment, relatively unimpeded by emotional fantasies and in a realistic manner, they may be able to form a symbolic representation - a 'theory', a 'model' - of their situation and, by means of actions based on that representation, change the situation (Mennell, 1992:164).*

Many environmental educators might not be very comfortable with so open a question as prevailing modernist oppositions have shaped a tendency to 'dump and jump' as we continually 'out with the old and in with the new' in cycling oppositions of language / ideas that develop to overturn the old. A differing picture emerges if one looks down the developing story examined in this study. Amidst developing postures of relatively blind spirits and struggle, are tangible turns revealing an emerging synthesis; the prospect of educational models of process that are reshaping of self in the company of others, with some hope of a quality of life in more sustainable surroundings, but not without continuing struggle and some reorientation in our activities and developing models of process.

Current socially critical perspectives often predetermine confrontation, activism and sensationalism where these are not necessarily socially manifest, without the influence of facilitating outsiders. Other models of scientific, environmental management and intervention can also demand an objective rationalism that is blind to, and disabling of, the diverse social processes which reshape the way people see and interact in the world. We appear either to be beset by a rational, critical involvement that gives rise to various forms of social constructivism, spiritualisation and a growing number of elevated environmental education gurus, or by a rational systemic detachment that can reduce people to objects that must be processed by methods and techniques which give rise to changed environmental awareness.

Within environmental action like the 'milky madness' of the Rietspruit, I am struck by a diversity of social processes of pragmatic struggle that are beyond the symbolic scope of the narrow contesting abstractions we currently call environmental education. If the milky madness

was to happen again, even in similar circumstances, it would be different, spiritually, critically and rationally. This is simply, by nature, a feature of the human social condition. In environmental education we may need fewer convincing abstractions and more dirt under the fingernails to guide our activities.

It strikes me that the more bureaucratized environmental education curricula have set out to manage others, to make them critical and to spiritually convert them, the less effective we have been. Even as it became fashionable for people to be facilitated to constructively choose for themselves, environmental educators have held onto a bureaucratized dogma of rational, critical intervention that has not enabled it/us to get closer to the realities of social process in situations of environmental risk and action. Critical spirits and rational science seem to be different in all situations of environmental action, so let's try to loosen up on the modernist search for a single recipe and critically review what we have in environmental education, where it came from and how useful it can be in the social realities of everyday action towards sustaining our developing environment with an acceptable quality of life in the company of others.

Once again, let me stress that my critical engagement with prevailing dispositions towards, and models of environmental education here, does not deny the importance of external social constraints and access to new environmental ideas as a key means of orientation in the twentieth century. The way this is being enacted in environmental education does, however, bring into question how professions have been setting about conceptualising and enacting this. Norbert Elias points out that:

*As the individual orientation of every member of society depends on the means of orientation available there, groups of people who are able to monopolize the guardianship, transmission and development of a society's means of orientation hold in their hands very considerable power chances, especially if the monopoly is centrally organised (Mennell, 1989:173).*

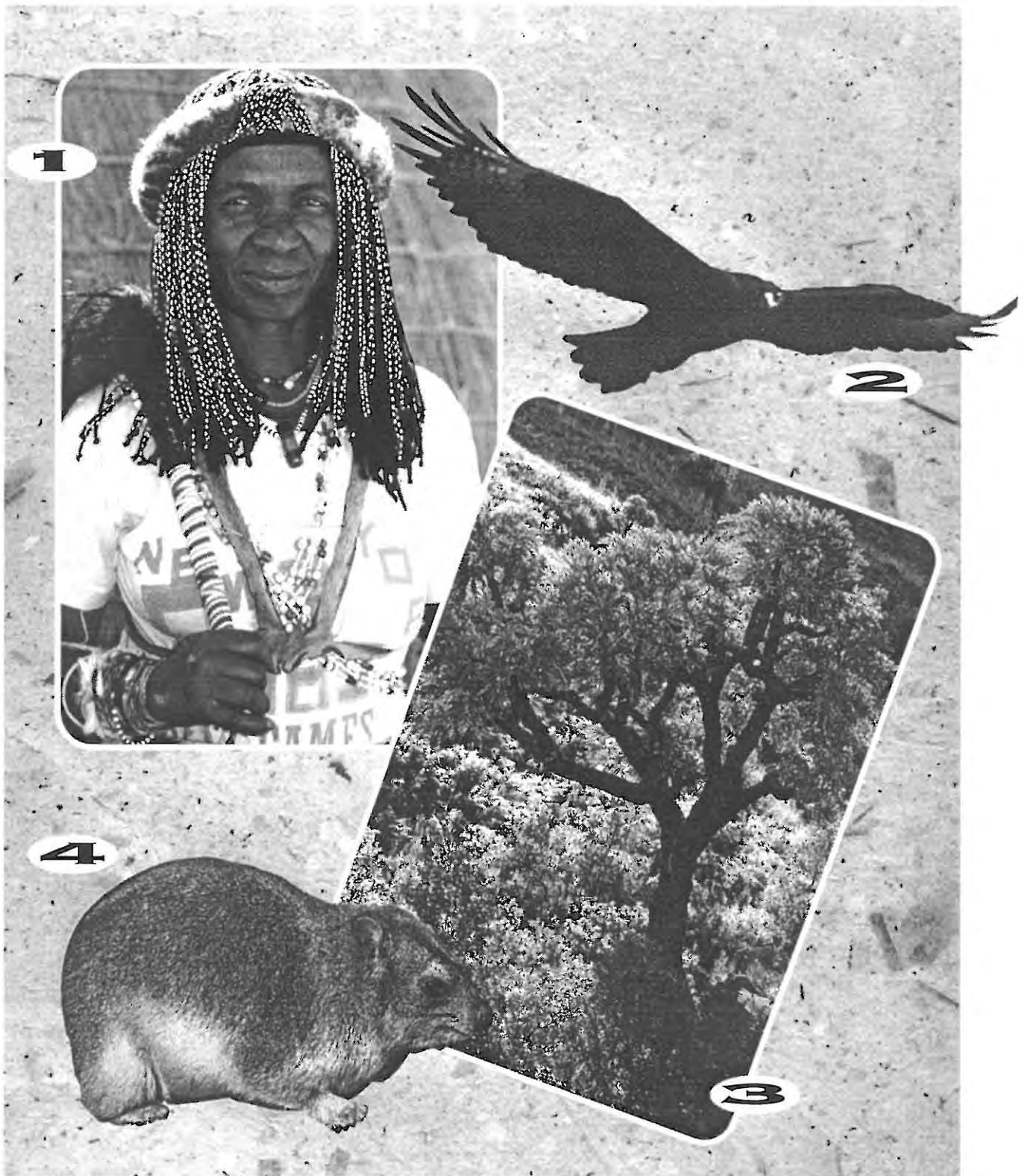
The bureaucratization of environmental education has produced something 'thing-like' that is in the hands of specialists who appear to claim the right to ascribe the worlds of others, or more

recently to facilitate them to do this for themselves. Greater critical sensitivity within developing political sociologies could enable a reshaping of our educational dispositions and ideas for engaging processes of reconstructive action that optimise the power-chances for a more sustainable world. These developing processes have, however, been relatively blind and orientated towards sustaining specialists in institutions apart and looking in on the lives of others. To do the job better amongst levelling power gradients, we may need a much more open, critical and action-located approach than has been apparent in southern African environmental education.

### **xxiii Post Script**

The water is now running clear and the otters were seen at the confluence just below the confluence of the Rietspruit and Umgeni rivers. They may be returning. Also, I was sent a very nice letter by Bill Richards, the director of scientific services. He sent the details of the bacteria samples and wrapped up the issue by inviting a visit to the site. I should not have thought that they were not sending me the bad data, or were they waiting until the problem was solved to do so. We will take him up on the offer of a visit to the site, in November. I will be working with students doing a course on environmental education with Rhodes University and WWF-International at the Umgeni Valley project and this story may be an interesting vehicle for examining current perspectives on these processes of social change in a risk society.

**Cabbage trees, dassies, eagles and people\***



\* 1. Traditional healer. 2. Black eagle. 3. Cabbage tree. 4. Dassie.

## CHAPTER TWELVE

### A review and an interpretative synthesis

*The central social function of knowledge is that as a means of social orientation. As the individual social orientation of every member of a society depends on the means of orientation available there, groups of people who are able to monopolize the guardianship, transmission and development of a society's means of orientation, hold in their hands very considerable power chances, especially if the monopoly is centrally organized (Elias, 1994:37).*

#### i      **Introductory overview**

Friends who have worked in environmental education as it emerged in the region, offered useful insights that ratified developing interpretations, and raised questions that led me to examine much longer term social processes than I had originally anticipated. As the study developed, original material of the times was included in the text as interpretative windows onto the developing story. This added a sense of open-ended complexity and extended the scope of the endeavour of the project, as further developing processes were identified for study. The windows in the times have been left to reveal a wider picture of open-ended struggles and key threads of the developing story have been given closer attention in this interpretative narrative in/on environmental education in eastern southern Africa.

These threads cannot simply be woven into a neat pattern to reveal the essences of environmental education as it emerged to reshape the values and behaviour of others. Process-reducing abstractions that serve to define a field apart with a specific origination, must be left to the institutional / philosophical perspectives that have dominated the academic shaping of environmental education. The social processes examined in this study, thus stand as sensitising fragments within an open-ended developing story. They can provide little more than windows

into some of the twists and turns in a continuing clarification of environmental education, within a widening picture of human struggle in the region. Viewed as a developing whole within long term human struggles, there emerges a picture of processes reshaping of people in/and environment. A better grasp of these is my concern over placing comparative propositions in opposition and judging one against the other in arguing for a unitary synthesis.

Throughout the study, my concern has not been to provide a history of environmental education, but to examine its emergence within developing social processes in the long-term. Interpretations were derived within an emerging sense of developing origins in social processes, where fluctuating power relations and struggles shaped how environmental education emerged within specialist conservation science social figurations. In examining these processes I sought a balance amongst broad scope and a precision of chronology. Here, accounts and documents, within developing axes of tension provided empirical evidence revealing shaping trajectories. Within this systematic search, as the threads of the developing story emerged, around a process sociology vantage point and its challenging sensitising concepts, what was revealed rang with a reality congruence that was often difficult to confront. The harsh reality that we live and work within a debris of good intentions and wrong turns, shaping strongly held ideas in/of the moment which are often exposed as tenuous within the harsh light of hindsight, is nothing new within the human experience.

This has been one of the shaping processes within the interpretative orientation of the study. Most challenging here was the discipline of a journey within evidence of developing processes which shed light on the stories in the times and processes flowing from these. I had to learn to avoid casual comparison so as not to fall victim to oppositional thinking that might transcend the struggles in the times to create figments of the imagination that are not founded in developing processes. Challenging revelations of some of the tenuous, originating assumptions and twists and turns in the developing game of environmental education have, however, made me no less enthusiastic about this critical struggle of our times.

Within this story, and behind some of the harsher realities revealed, is a warming sense that we are immersed in, and have started to play a role, albeit somewhat erratically, in civilising processes in/on the land to reshape ourselves and each other. This is none-too-soon, following a greater reality congruence and a power over our surroundings that has come within techno-scientific processes of the last few hundred years. Here, enhanced quality of life and increased human numbers on the one hand have developed with escalating risk on the other. These processes and widening intermeshing are characterised by a sustained surge of separations as narrowing, specialist knowledge and power for making better steering choices within developing surroundings, has come to reside in institutions, detached from, and looking in on others. Emergent struggles to develop and educate others within processes which might enable a balancing of control over/in surroundings with self control through informed choice and social controls amongst others, may still be some way off.

Within specialist figurations in environmental institutions, the models of process emerging as environment and development education thus far, are characterised by a narrowing objectivity that has lost sight of social process behind the sense of fact that individuals have come to feel that they hold in the present as a mediating elite within narrowing specialisms. These trajectories have shaped contests amongst idealised models of process for reshaping the hands and hearts of others by mediating the experiences necessary for them to change themselves. The struggles of the last twenty years, and a revealing of the injustices of the past, have shaped the specialists involved in these detached reflexive processes, and an equalising amongst the powerful and previously weak has opened up a frontier of continuing clarifying change.

How developing processes reshape us in the company of others and our capacity to exercise a sustaining control within developing surroundings, must remain an open question within environmental education. Developing orientations will be played out in emergent models of process within shifting social figurations of environment and development education as these

are shaped within a widening connectivity of globalizing interdependence. Like Elias, I am still hopeful that a developing grasp of the processes within which we are intermeshed will enable humans to play a mediating role in the shaping of a developing human condition that is more sustainable, following the surge of power over surroundings of the last few hundred years. The challenge remains to mediate, within the reality congruence and power accompanying this 'detour via detachment' shaping scientific objectivity, the necessary balances of self-control and shared social controls in the company of others. This will require some reshaping of institutions and specialists who have remained detached and now vigorously contest for the right to draw the maps for others. If this vigour is moderated within the mediating hands of others they now seek to facilitate to attain the detached harmonies of their ideals, continuing struggles may be sustaining of us in the company of others, in the surroundings we share.

As a sociological examination of environmental education, amongst others working within this developing process in southern Africa, this study has been a challenging experience. Not only have I / we had to face the loss of some most treasured and powerful myths, but have also had to confront some rather harsh and uncomfortable realities about self, others and surroundings on an environmental education terrain within which we thought ourselves to have had better control and some insight. As a developing rational field, dominated by an outside view, looking in on the social terrain of others in struggle amidst escalating risk, it must be reported that our sense of the processes within which we are intermeshed, has been tenuous at best. This rather stark reality is not unlike the slow human grasp of most things over long intergenerational struggles, taking us to where we are today.

Looking back and around it can, however, also be reported that the struggle has been worth it despite the challenging realities that confront us in environmental education today. Through this study I have a sense of being better fore-armed for interactions amongst others concerned with developing risk in our surroundings. Within our institutional settings we remain victims

within the processes that envelope us, but less and less so. A past blindness does not absolve any of us from accountability, and a developing concern about earlier and continuing injustices is shaping further reflexive turns and continuing struggles within ourselves, the company we keep and the surroundings we share.

These processes have shaped involved and somewhat blind individual experts lost in the present, but within a renewed sense of history and continuing struggles in the company of others we may make for more informed choices around better models of process. Also, with a concurrent exposing of sylvian myths, there is a slow realization that we cannot simply turn back the clock to restore past harmonies. A developing vision down the generations of processes shaping us in/and our surroundings is thus preparing us for co-shaping struggles to enhance self and social controls within worlds of shifting interdependence in more global intermeshings.

In this chapter I look back on the study in two ways. First through a developing story of the cabbage tree (*cussonia spp.*), people and animals. This reveals a shifting tapestry of myth, reshaped within social processes amongst a changing sense of things in developing struggles within widening interactions. The story is then followed by a further synthesis and a broader sociological look at processes of environmental education in eastern southern Africa. Finally, within the developing social process vantage point used throughout the study, I turn to Elias for a concluding process image that might be challenging and informative in the shaping of a widening environmental education orientation that is involving more and more humans in rewarding ways.

## ii Shifting harmonies among people, cabbage trees and animals<sup>1</sup>

This story looks at a single thread in a changing tapestry of interdependence across developing social processes in eastern southern Africa examined in this study. Like the study, it starts within Nguni figurations, where people in their surroundings were very different to our world today. A look back at the treeless hills of Hluhluwe and into the mass hunts of Zulu and Colonists gives one a hint of how things and people have changed over a relatively short period of one-to-two hundred years. The story takes us through many of the struggles that gave rise to environmental education as responsive processes of change within a developing environment crisis, to where we now reside in the diverse struggles of the present. Here the reshaping continues as we experience increasing risk within an intergenerational capital of harmonies amongst the shared experiences in/of everyday life.

### *Early harmonies*

The story is set amongst the Nguni cattle peoples, amidst slowly receding forest in/on their cattle grassland. Here within developing processes of fire and mass hunting, large game was kept at bay and developing continuities of social life were sustained within the tight webs of animistic harmonies of the day<sup>2</sup>. Within this intermeshed social world, intricate webs of tight

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<sup>1</sup> A developing insight into the shifting interweavings of myth came with a reading of Simon Schama's 'Landscape and Memory' and through interactions with colleagues working in ecology and environmental education. From Tim Wright and the staff of the Umgeni Valley we have the developing nature reserve story of the ecology of the cabbage tree. At a recent workshop I had the privilege of attending a presentation by Mabongi Mtshali. She gave a sensitive portrayal of the stories, challenges and struggles of the rural peoples with whom she interacted in her work. I am also grateful for the insights of Mba Manqele and Lynette Masuku-van Damme in our joint clarification of stories rich in indigenous knowledge, and to Callie Loubser for an interchange of ideas and papers exploring some of these issues (Wertz-Hugo, 1993).

<sup>2</sup> It is important that these processes be located and understood within earlier times and differing patterns of social control. Guy (1979) warns of the dangers and injustices of misrepresentations when the traditions and conventions of the past are carried into the present. Elias locates these, in the case of his history of manners, in developing contexts of social change in the times. I thus seek to locate and to follow developing threads of change and not to interpret these in present contexts, as if laden with knowledge lost. Feelings of knowing in steering choices must reside in the mediating company of others and the continuing struggles of the day.

controls shaped people in developing ways within continuities of early harmonising<sup>3</sup> (developing) social processes.

The cabbage tree was signified in daily communal life within processes of social solidarity and control amongst young adults. As young people began to feel and to notice their own sexuality amongst others in the close intimacies of everyday family life together, adult consensus would feel when the time was ripe for what was done in the course of events. The responses of parents<sup>4</sup> in a close extended family would set in motion developing processes of induction into adulthood<sup>5</sup>, within the conventions of the time. The cabbage tree had a small signified role in this, and within wider webs of processes of socialising interdependence.

In examining these social processes, my concern is not with the detail. This cannot be relied upon owing to interpretative transformations as early social processes were written up as ceremonies or events within historical and anthropological academic traditions, for example. These throw interpretative myths into our vision, often obscuring a view of the processes within developing webs of interdependence. The language in early tribal processes and the details of what happened varied considerably in shifting open-ended webs of developing interdependence, and as the small Nguni tribal figurations became a large military kingdom. Today many of these early social processes are seen as specific ceremonies, relatively fixed activities within tight patterns of tribal daily and seasonal life. My concern is not with these abstracted transformations or with circulating arguments of greater or lesser authenticity of detail, but with how the processes provide a window into tight social figurations with close social control, sustained within the animistic intimacies of communal life in earlier times, and as

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<sup>3</sup> I use this term not in the utopian sense of holistic harmonies but in a sense that isolated processes are held together within developing webs of social processes that hold people together.

<sup>4</sup> Parents here relates to much wider relational dynamics that mother and father, including all elderly members of the family, especially on the male side.

<sup>5</sup> Today this is still undertaken as induction ceremonies at puberty. It should be noted that these have undergone considerable change over the years, the most significant being a once-off ceremony which developed historically as the culmination of much longer developing processes intermeshed within communal daily life.

these shifted and responded within the developing course of events.

In the course of day-to-day interactions and when it was time, the spiralling leaf of the cabbage tree was used by the *izinyanga* (herbalists). Stripped of its leafy tissue, and dried, it makes a whirl which was inserted in the anus of the young adult. Here it was rotated until blood was noted to mingle on the rim of the sphincter. This social process of *ukunconca* was not a punishment but a process within developing socialisation, and not at any fixed age. There was considerable variation and it was an important felt matter amongst parents<sup>6</sup> and children that they had been 'nconcad.'<sup>7</sup> The process was said to reduce acne and to discourage promiscuity.

*Ukunconca* was one of many developing processes inducting and differentiating men and women within a tight military kingdom where marriage was commonly in the thirties once a soldier was proven and was given permission to marry by the king. A strong self-discipline and the wider social controls by senior maidens over the younger women under their supervision were important for the processes of sex without penetration (*soma*, Inter-femoral sex) during the Zulu military kingdom. These techniques were not taught from books but were learned under close supervision within the fabric of social life.

Closely meshed within this web were inspections of virgins (*hlola*) and rain-making ceremonies (*unomkhubulwane*) that sought to restore harmonies during periods of drought. Here the cabbage tree was used as the only dress for young virgins who participated in the process within a web of activities around matters of ancestral spirits. If the rain did not appear when the women worked the lands together at the start of the season then, within *unomkhubulwane*, the virgins would dress in cabbage tree leaves and walk to the river where

<sup>6</sup> One participant in the workshop who had some experience of wider initiation ceremonies amongst Xhosa in the Eastern Cape, described a washing over feeling of shared solidarity and pleasure within the pain of young children when they undergo challenging processes such as this. The pains of the dentist chair and admonishments to 'now look after your teeth' are reminiscent of my own youth.

<sup>7</sup> An anglicised descriptive term used by Mtshali to capture the event. Transformations such as this tend to lift an intermeshed complex of social processes so that they are seen as event or object of tribal life. It is very difficult for us to avoid these transformative shifts within the objective convention of the day.

they would drop them and return naked. This activity was part of other processes of tribal mobilisation, hunting, burning and clearing the area around communal homesteads. These superficial examples of process are but one thread within webs of interwoven processes in early tribal patterns of communal social control. I do not seek to explain or even to describe the social processes in any detail, but to touch on them in tracing a thread of shifting process that might give sociological insight into how people and human life has changed since earlier times.

Within and around this developing story in more animistic times, widening struggles slowly enabled people to look out at, and beyond, their close social worlds of involving intimacies and controls, and to begin to stand outside and to look in on others<sup>8</sup>, events and, very much more slowly, themselves. This Eliasian process image helps one to see things intergenerationally signified around the cabbage tree example, given a firmness in daily life in the times, but open-ended within developing processes.

### *Continuing reshaping harmonies*

On shifting frontiers of widening interaction, people and their surroundings began to change in more rapid and open-ended ways. Here the trekboers are said to have used the cabbage tree as brake shoes for their wagons and British colonial explorers were intrigued and fascinated by all that was new, wild and novel. The novelty of experience and the questioning of things, both ways (established and outsiders), opened a trajectory of humans increasingly being able to explain the 'what and the why'<sup>9</sup> of things that were taken for granted in the natural course of earlier processes of daily life.

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<sup>8</sup> Dingiswayo and Shaka, for example, journeyed away from home and the Zulu armies began to range more widely within the region. See Morris (1965:45), a somewhat dramatised interpretative story of events.

<sup>9</sup> Here I do not suggest that 'whats and whys' did not exist earlier, but merely point to the fact that symbolised differentiations emerged more rapidly within widening, intermeshing and clarifying contestation.

People increasingly began to see themselves in the stories they told, and shifting struggles continued to shape developing perspectives amidst an intermeshing of experiences in the field and romantic revivals of nature's ecology and the harmonies of early peoples. Of note here was the protection of dassies, cabbage trees and eagles in early nature reserves as the *nagana* put paid to earlier utopian fantasies and the Zulu nation declined against colonial imperialism.

One can follow an imperial romancing of Zulu gentleman in Foster (1953), through a socio-ecological revival in a landscape of sweeping reconstructions in the Umfolozi wilderness amongst Player and Ntombela,<sup>10</sup> to an ecologizing of the San (Bushman) in Walker and Richards (1975:41-45). And a shifting story of romantic indigenous harmonies as fact, reaches into the early environmental education programmes of the Karkloof Environmental Education Project, the Joint Venture and later the Umgeni Valley Project.

Processes of romancing revival like this are not unusual but have increased within the ecstasies of human social experience this century. Useful early examples are an inversion when wild men of the forests *were made over into exemplars of the virtuous and natural life*<sup>11</sup> in late 1500's Germany and the transformation of native Americans in the story of chief Seattle examined in the previous chapter. Revivalist romancings have always been a source of inspiring ideas and developing civilising processes reshaping people in the company of others, provided they have not become narrowing cycles of spiritual dogma that are not open to critical scrutiny and doubt.

An open-ended reshaping of ideas was a key feature within early interactions during a

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<sup>10</sup> Close scrutiny of developing social processes suggests that the idea of domination and suppression is more an outcome of academic conventions within the philosophical notions of objective power in dialectic stories of winners and losers. These notions of a dominant hegemony excluding and suppressing do not penetrate to the shared struggles amongst 'white and black' game rangers in early conservation. The interactions of Player and Mgcubu are but one window on a story of immensely complex shifting relational dynamics which were co-shaping of developing orientations and differentiations in the struggles on early game reserves. Any examination of this in greater detail must unfortunately, remain beyond the scope of this study.

<sup>11</sup> Schama, 1995:97.

protracted interplay amongst Nguni (Zulu) game guard bushcraft skills and local knowledge and ranger developing ecological and wildlife management expertise.<sup>12</sup> It was within such open-ended intermeshings that the symbolic capital of interacting past cultures and developing experiences were signified within new fabrics of meanings, appearing as a break in developing continuities. Stories changed and became imaginative seekings of new ideals. The romantic reflections of Wil Foster and the later stories of Player and Ntombela<sup>13</sup> transformed early animistic myths of exact social control within an equally powerful wilderness interpretative narrative that explains, leads and shows ideal new ways out of the old in benign parables of more sustainable living. Shifts like this from stories that terrify and mystify to exact social control amongst young children are apparent in fairy tales and myths and legends that are today far more benign than the stories of old. The interplay of experience and developing story in the shaping of images of sustainability are to be found in new stories of interdependence amongst cabbage trees, dassies, eagles and people.

On the reserves, developing interpretative processes signified cabbage trees and many other features of the land within a blending of 'old and new' in the stories they wove within the developing processes they shared (Chapters 5 - 8). Within the struggles in the Umfolozi and into the Umgeni Valley we find new stories of fascinating interdependence in wild nature and sustainable harvesting by indigenous peoples.

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<sup>12</sup> Despite apparently clearly defined roles of game ranger and game guard (officer and employee administrative categories) of the times, most young rangers developed expertise under the watchful eye of senior game guard staff within close bonds often being sustained over many years, and where peoples separated within the conventions of the time, were more-often-than-not equals in competence and shared respect working together in the field. These early relational dynamics are obscured by institutional processes where rank and subordination had an increasingly powerful shaping influence within developing apartheid state institutional structures. Here I am merely pointing to a fact in relational dynamics on the job and not trying to place racial inequalities entrenched in rankings in good light. It should be noted that the accepted of the day became abhorrent racial differentiation within developing processes. One must avoid the temptation to reflect the moral imperatives of the times into differing developing processes of earlier times.

<sup>13</sup> See Foster (1953) and Player (1972) for example.

### *Developing harmonies of interdependence*

In the new nature reserves, the cabbage tree was identified as the food of the dassie. The two became signified in new ways, within differing processes, as humans, within detached and involved experiential processes, came to look in on interdependence in wild nature. Above and around on the thermals soared the black eagle also linked to dassie and tree in a food-chain of fascinating interdependence. People came to experience these interactions and to visualize the connections within wild nature under protection.

This was set against widening environmental degradation and mounting more invisible threats to an interdependence of humans interwoven in nature's ecology. People increasingly brought and found these new images in nature reserves and with a detached vantage point, worried and dreamed of the world they looked back on from the wilderness. Sustained images of past harmonies lost, and the pressure to develop new harmonies, shaped inversions through which a more sustainable future was re-written in utopian images of the past, reflected in the abundance of wild nature; old themes with new relevance for mobilising images of change for the better.

There was a sense of meshings amongst past and present in developing processes seeking images of future sustainabilities. For example, the corky bark of the cabbage tree was noted to provide protection from fire, and this image was blended with visions of indigenous pasture management to construct fascinating myths of a grassland Eden and its Nguni cattle.

Interpretative excitement was further compounded by the elephant being revealed as the closest living relative to the dassie, as people were caught up in the revealing stories they wove amidst experience and imagination in tranquil nature, no longer a wilderness of fear, but a wilderness of excitement, rejuvenation and new insight reshaping of life and mobilising of revitalised spirits for new harmonies within developing risk.

In these inspiring stories the harsh realities that the eagles eat the cuddly dassie had to be confronted. Special eye adaptations were noted. These enabled rangers to interpret how the dassie, unlike us, could look towards the sun, and how its social life was characterised by guards which warned of dangers from the sky. Despite this, the eagle would get its meal. All of these roles and stories were played out in early wilderness education through nature experience. The loss of eagles through shooting and poisoning which had been acceptable earlier, rebounded into a conservation challenge as the extinction of predators produced the high dassie populations that threatened adjacent maize lands in some parts of southern Africa.

Mobilising spirits of indigenous harmonies were constructed around the San (Bushmen) who were said to have used the tree for food and water in times of drought. The story developed that they would take only one of the fibrous roots, leaving the other so that nature would prosper and survive. In this way, emancipatory / utopian images of mother earth in a holism of indigenous spiritual harmonies were constructed as shifts shaping new identity in harmonious interdependence amongst 'man,' tree, dassie and eagle.

The symbolic power of these images, constructed in early interpretative struggles, and now often delivered as expert pronouncements and fascinating stories, shaped a developing more doctrinaire moulding of new myths in the minds of the young. This developed as environmental educators exposed young people to experiences in the wilderness. Here, the young were imbued with a malleable, sinless purity in their encounter experiences and this was set against adult greed and fixed ways, blind and sinful which had placed the whole at risk through the loss of old harmonies of mother earth. In this way environmental education began to develop its own stories and idealised models of processes of change. These processes took many twists and turns in circular struggles within the developing field, but with a levelling of power among stronger and weaker on a wide front, the indigenous were said to have a closeness to the harmonies of the land that were not in the oppressive greed of Western colonists who hunted and exploited people and land, creating the problems of the day.

### *Harmonising struggles today*

Set against these new harmonious myths, are the struggles of others getting new voice within mounting risk and a levelling of the power gradient. Unlike the stories in the nature reserves and the environmental education centres, the struggles of many rural indigenous peoples developed in different equally open-ended ways. Mtshali shared the struggles of one small rural community where use of the cabbage tree for *Ukunconca* has persisted and is being revived to control sexuality. This control along with the earlier *soma* within the supervision of senior maidens was proposed as a way of controlling AIDS. These struggles have accompanied claims by *iziyanga* that within indigenous knowledge and its medicinal plants, there is a cure<sup>14</sup> for AIDS.

Accompanying this and a developing sense of risk, has come pressure for a reinstatement of *hlola*. Mtshali reports how this led to near riots and parents bribing / threatening the wives of the *inkosi* (chief) when these senior women sought to examine and confirm the virginity of young girls. Parents who struggled to control sexually active daughters faced the prospect of a lower bride-price and the loss of face. The daughters struggled within close tribal controls and the talk of radio and school that women are individuals who can and should exercise choice and not be subjugated to men and tradition.

Mtshali (1994:91) also reports many facts of daily life processes which are developing transformations of earlier times, recommending that environmental education processes might well be centred within community history. She reports that indigenous peoples hunted during

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<sup>14</sup> At a recent dinner of indigenous foods *Inkosi* Ngubane described a case of a herbalist who had a cure for Aids. These claims have been numerous and are strongly held as solutions amidst the heat of invisible risk. They cannot be dismissed as a simple matter of individuals seeking fame and fortune amongst illiterate rural people but as human social processes in the struggles of daily life to be mediated within the processural conventions of the times.

the winter and never hunted wildlife carrying young<sup>15</sup>. This is important for a symbolic capital of developing images for people to shape a sense of worth and possibilities for more sustainable living. In much earlier times and within bad droughts / *nagana* the hunting and driving of all large wildlife was a matter of survival, especially into a new season when the rains were late, or when a king died. Mtshali (1994:83) suggests that the clearing of litter in the rain-making, shows a sensitivity to the environment before seeking to mediate the hunting (driving) and burning accompanying this. These are no longer as desirable in conservation processes today as they were in earlier struggles in/on the land (Part Two).

What the research reveals as fact in the developing story in the present can be illuminated by a sense of the seasonal rhythms of the past when Zulu, and later, Trekboer and Colonist, entered the lowveld to hunt in winter when the rivers were low and the upland farms were less busy and productive. A suggestion that an indigenous culture of seasonal, sustainable harvesting is revealed here, must be brought into question. Periodically, with *nagana* or when the rains were late, Zulu cleaning, burning and driving extended into the new season, a pattern of mobilising also associated with military campaigns. Within research such as this, when local story and indigenous voice are appropriated and revived in stories of past indigenous harmonies,<sup>16</sup> these notions are very difficult to bring into question. They reappear as fact out of earlier sylvian harmonies and can come to support moral imperatives for sustainable living in further academic / administrative struggles, as seen in the earlier case of research on reserve - neighbour interactions (Chapter 10).

In a similar way, in this thread of shifting story around cabbage trees and dassie, the fabric of myth amongst, and visited on, indigenous peoples, has developed within more recent education and research worlds of rational objects. Here, developing processes have shaped

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<sup>15</sup> This was a key axis of tension amongst Warren and the game laws discussed in chapter four.

<sup>16</sup> Mtshali managed to avoid much of this by developing her stories in the company of others and then taking them back amongst people as a developing capital for grappling with the pressing risks in communal daily life. Her interpretations do, however, tend in the direction of a developing hegemony of indigenous harmony.

environmental education as detached harmonies, looking in on the worlds of others.

### *Disappearing harmonies*

Ironically, in the late 1980's nearly all of the dassies died out in the Umgeni Valley owing to a virulent influenza. Dassie observation and the stories are no longer a key part of the experiential programme and many of the staff have forgotten details. It took me a week of questioning and telephone calls to get confirmation of many of the ecological details that were part of earlier programmes.<sup>17</sup> Zulu colleagues and long-serving field staff of the Umgeni Valley had slight recollection. These had not been written down at the time as they were experiential stories shared in the field and had not necessarily been subjected to public scientific scrutiny. They also resided in shared intimacies that were not readily offered for public consumption after fieldwork which pushed the boundaries of fact in experiences seeking spiritual excitement. There were also issues of status and identity at risk when the metaphorical power of involving spirits was exposed to public scrutiny. It seems that when a story is hot and current, all have a lot to say, enabling the building of intricate images within intermeshed myth/feelings, but this can fall away very quickly when the story drops from wide popular use within shifting processes. It may, however, emerge within differing developing processes at some future time.<sup>18</sup>

The developing story of cabbage trees, dassies, people and other animals is not a matter of changing facts about things, or of struggles reshaping of world view, but is simply one example of a thread within changing social processes. The key issue is not only a new, more

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<sup>17</sup> The dassie food chain was documented within the PEP-UP evaluation process in the Umgeni Valley in the mid 1980's.

<sup>18</sup> Palmer, 1990 [1966] gives evidence of how San myth was rapidly transformed and entirely lost over a matter of seventy years, yet we persist in assuming that earlier peoples lived within an age-old fabric of sustaining story in holistic harmonies, now somehow lost along the way amidst recent struggles amongst colonising outsiders. As I was concluding this study in November, 1996 I noticed the first Dassies returning to the rocks near my office. It may not be long before they are hot and current in the Umgeni Valley once more.

reality congruent knowledge / interdependence, but a sense of how developing social processes shape, hold and sustain us within a fabric of signified symbols that we reshape within shared experience to sustain ourselves in the company of others in our surroundings. The important thing here seems to be a dynamic balance in controls among self, others and surroundings within developing processes.

These symbols carried intergenerational and experientially imbued / signified in shared intermeshing amongst others as the capital for sustainable living. Here sustainable living is the developing processes, as continuing struggle serves to enable us to sustain a balance of controls in self, amongst others and over/in surroundings. The idea of nature / culture as 'one' in dynamic equilibrium within developing processes of education, reshaping the feelings and fabric of myth that sustains us in the company of others and less risky surroundings, still falls beyond our grasp as we live in a world of detached harmonies in environmental education. Stronger feelings for others and reflections on the harsh realities of the stories of injustices within which we are intermeshed might be continuing processes that enable greater critical self control and legislative controls within the company of others to establish sustaining patterns of resource use within our surroundings. This question remains open-ended within modernist continuities of progress and development as mediated within the objective rationality of detached experts. These struggles and continuities seem to have us locked within a maelstrom of escalating risk and narrowing options into the next century.

Looking back over these developing process images on the land, amongst people in, and around, the game parks and upon people themselves, I am struck by webs of escalating and widening risk, multi-layered and spiralling within developing and more diverse socially critical trajectories within environmental education. This has emerged amidst increasing reflexivity and a moral turn that is continuing this reshaping of the stories within which we are intermeshed. Within all of this, the shaping of the likes of social processes of environmental education may reshape and maintain self, other and surrounding balances of control to sustain the human

species with a good quality of life. This is still some way off.

### **iii Looking back over developing processes of environmental education**

The opening chapter on early figurations and wildlife orientation traced how environment, societies and individual people changed, initially very slightly and slowly, but then more rapidly within expanding connectivity and a shift in the Zulu political economy. This happened with trade opportunities when wildlife was vested in the king, as everything else was at the time, and it came to be 'protected' in wild valley and other frontier lowland areas.

Within the decline of the Zulu nation with colonial imperialism, a sustained contestation amongst hunters and preservers of wildlife within the *nagana* struggle, came to separate people and their cattle from wildlife in protective sanctuaries. The setting aside of these areas brought about further processural change and an inversion in orientation, despite the separation of wildlife and cattle having previously developed over many hundreds of years of Nguni mass mobilisation.

In the parks, rangers now looking out on others, outside the fences, sedimented a new view of wild nature, separate from people who, within poaching struggles, came to be seen as seen as others on the outside. Within these processes, scientists and rangers secured dominion over land, animals and ecosystems in reserves. Accompanying these processes there developed an epistemological certainty amongst knowledgeable scientific managers, who understood and could control the natural environment in differing ways, to those of earlier times. Knowledge and an interpretative skill was further developed in interactions with visiting others; ranger exploits with wildlife and insights into natural systems bringing with it considerable status and ascendancy. This slowly made rangers, and their wilderness parks, teachers of others who through a lack of awareness, were engaged in the wholesale destruction of the environment outside and beyond parks. The developing conservation science institution, through these

processes came to play a central role in what was to be called environmental education into the 1980's.

This overview is a simplified picture of the changing patterns of social process behind an emerging institutional urge to educate. A key processual trend shaping the turn towards education was the shift within the administrative management of places, people and change. Within a lengthening and strengthening of a central administrative thrust, first came scientific management control over the land and along with this, the urge to educate others. This idea was institutionalised within the developing administration. The shift accompanies the upward and outward promotion of rangers and scientists from reserves and into administrative functions at a distant head office, as well as a trend towards an increasing direction from head office over reserves<sup>19</sup>.

The developing trajectory towards greater central institutional control appears to have been a key process in the shaping of all kinds of education, all of a sudden, into the 1970's and 80's. The seeds of education as an institutional 'social regulation' response are, however, to be found within a strengthening, objective, and thus more rational administration which, once certain of managing ecosystems and its staff, also sought to manage others. This came with its detached and wider view of wholesale environmental change and destruction on a widening scale. Added impetus and vision was shaped within interaction at a global level and detachment that led to conferences on environmental management policies and environmental education. These meshed with developing processes in southern Africa, and in the late 1970's environmental education began to appear on the southern African landscape, with confident people and institutions to create environmental awareness and thus to solve the problems of the region and globe under threat.

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<sup>19</sup> Of note here are more rigorous reporting and accountability structures amidst developing tensions on the activities of the Board and a public commission of enquiry. Following this the administrative structure was changed and more objective forms of administrative and scientific accounting applied, culminating in the reserve management plans of the 1980's.

Environmental education in eastern southern Africa, had emerged within a twenty year developmental rush from the Umfolozi through Umgeni Valley to Treverton, and within similar, open-ended processes elsewhere. A fascination with developing images of the pattern that connects nature in ecosystems, impelled by the developing magnitude of risk to human kind, sought to connect everything within an eco-spiritual whole. A broadening circle of converts developed an image of an idealised, experiential methodology for education in nature, about problems and for conservation of the environment. Within diverse processes like this, and in widening contexts, environmental education for awareness, attitude change, values clarification and behaviour change held an excitement, a vision and a certainty that gave a developing elite of experts a conviction to do this vital job. These processes and wider intermeshings further shaped detached specialists with greater reality congruent insight on the lives of others, but stuck in a double bind within abstract models of processes that emerged as process reduced images for reshaping others. There thus developed a third-party orientation where the experts in abstraction sought to reconnect in everyday life as they lived and played in multiple worlds in their heads.

Within a recent, third-party vantage point, strong feelings of involvement in the appropriated charts of others, mediated amongst critical fantasies of emancipation for sustainable living create a separate and elevated terrain for environmental education. This has become cut off from the business of life with experts in institutions involved in objective struggles of their own. In other words, instead of climbing up and down the Eliasian spiral staircase within a game of continuing struggles in/on the land and its peoples, a new elite, as if stuck in a lift on the third floor, are fighting to referee a continuing game played within their rules. This recent turn in events is not likely to be productive or sustained. It has emerged as greater control over surroundings, has produced escalating and more invisible risk, reshaping self-control and necessitating greater mediating control amongst others. The appropriating power of a scientific and environmental education elite is now seeking to mediate the struggles of others.

#### iv Developing struggles with nonsense

The developing story here may be a bit of a surprise to scientists who have come, within an institutional detachment, to preside over and to pronounce with increasing certainty on natural processes and environmental problems. Within a detached, specialist vantage point, developing problems have come to be ascribed to a lack of awareness in others and environmental education initiatives have emerged to reshape communities to idealised harmonies within the objective trajectories of specialist research. The idea of a tightening rational objectivity, shaping social space, in simplified outline here, emerged with a developing monopoly on ecological knowledge, and as specialists came to mediate over the power chances of others within diverse environment and development education processes of social control.

Throughout these processes on early reserves, intense involvement and a greater capacity for detachment were shaping of a more reality congruent capital of ideas in the hands of people involved in these clarifying struggles. Schama (1995:134) captures this idea of developing grounded struggle and increasing reflexive detachment when he offers:

*“Nonsense (When all is said and done) is still nonsense. But the study of nonsense, that is science.”*

An Eliasian perspective reveals how emergent ‘nonsense,’ as an axis of tension with open-ended involvement and detachment processes of clarifying struggle, can be reshaping of a sustaining symbolic capital of more reality congruent knowledge for better steering choices. Elias also argues for a sociological theory of science, the grounded frame of reference for which is just such a:

*...diachronic long-term process, a long chain of generations where specific advances made by earlier generations **are the condition** of those of later generations (Elias, 1982:16. My bold).*

This study of succeeding conditions in the developing story of environmental education, reveals how conservation structures and the ideas of education were shaped within developing axes of tension; emergent risk as nonsense needing clarifying study within developing scientific processes. The meanings people made within these processes shaped conditions sustained within institutional continuities. It is within these developing processes, examined in this study, that the conditions in which we find ourselves today came to be constructed in the open-ended twists and turns of clarifying struggle.

Also, in looking at these processes I take the Eliasian position that:

*the individual self-restraint of men and women requires reinforcement through external restraints by means of agencies which are specially licensed to threaten or to use physical violence if that is necessary, in order to ensure a peaceful coexistence of people within their society. ....No peaceful life within a society is possible for any length of time without specialist external restraining agencies that reinforce and supplement individual self-restraint (Elias, 1987b:76-77).*

Developing institutionalisation, examined in this study, emerged with a detached orientation, seeking to control social space within a symbolic violence<sup>20</sup> for sustainable living, enacted through education interventions. The story reveals a narrowing objectivity and processes that have shaped environmental education in particular ways that merit scrutiny, if we are to get a better grasp on the struggles within which we are intermeshed.

In examining the emergence of conservation-science monopolies and institutional environmental education processes, this study reveals how more reality congruence knowledge was shaped within a developing institutional 'detour via detachment' from early wildlife management struggles in nature reserves. Early on, scientific struggles within emergent nonsense were not specialist, objective rituals, separate, above and mediated within institutional conventions and philosophical objectivity.<sup>21</sup> It was only later that research and scientific

<sup>20</sup> This sensitising concept of power relations in social process I borrow from Pierre Bourdieu. See Bourdieu and Passeron, 1977.

<sup>21</sup> Beck in his risk society grapples with shifting relational dynamics reshaping this sustained trajectory of separations and narrowing until it has become unproductive, oppressive and destructive in many developing ways.

knowledge came to regulate reserve management within tighter controls, as it solved problems amongst wrestles with non-sense. This shift served to reshape structures and processes of developing continuities amongst people in/and surroundings.

These developed as a specialist, conservation-science function in institutions following earlier, somewhat ad hoc, clarifying struggles in the field. In the management struggles of early conservation, the power gradient favoured the practical knowledge of the game ranger, but this was slowly inverted as scientists came to mediate more objective management plans. The developing processes served as sustained constraints, shaping individual self-restraint in particular directions and establishing sedimented processes of social control amongst the networks of people involved in the developing game. Specialists slowly became custodians of objective 'scientific' knowledge and all other ideas were **non-sense**, unless mediated within the developing institutional rules of the game. External research projects developed as the institutional processes for solving the wildlife management problems on nature reserves. The roles of reserve management, research services and increasingly specialist functions developed in the conservation institution. These had links with specialist departments and university institutes, developing monopolies maintained by research processes recommending further research or monitoring under the mediating hand of science.

### *A new sense of interdependence in expert institutions*

Struggle amongst peoples interacting in eastern southern Africa are revealing of a detaching shift and a changed sense of interdependence. These processes developing amongst early people working on reserves, and then concurrently as a developing conservation institution, interacted with mediating specialists in universities. They included a blending of earlier indigenous myth, experiences and observations within an emerging interpretative narrative,

revealing of a new sense of an ecological pattern that connects people in/and nature <sup>22</sup>.

A slow, objective refinement of ecology,<sup>23</sup> as a field in its own right with a scientific symbolic capital of language and concepts, emerged along with its clarification of developing environmental problems. Here the early struggle to describe interdependence in language was later taught to others in defined, objective ways as scientific concepts were brought onto situations to explain interdependence. In this way, a clarifying process in the hands of people struggling within a developing risk, slowly became a matter of external information being needed to understand a problem. This condition accompanied a power shift to specialists and a developing field that was being scientifically mapped out in objective ways.

Continuing ecological meaning-making struggles started within a developing institutional detachment in a network of small, functional units on nature reserves, and through interactions with visiting university scientists. As ecology developed into a body of externally available knowledge with a greater reality congruence, so the processes of becoming aware of problems changed, and the institution began to hold sway over its objective reality congruent knowledge, held as a commodity within the conservation institution and needed by others so that they might also become aware of problems and make better steering choices.

### *Detached monopolies and a developing second-hand nonsense*

In this way, a developing monopoly of scientific knowledge, and an accompanying of the specialist conservation institution, came to be set against ignorant others degrading the

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<sup>22</sup> More recently, one finds these processes in the scientific research that mediates reserve management. The trajectory has thus been a developing monopoly under specialist control in university institutes, prompting developing political sociologies to maintain and extend these powers.

<sup>23</sup> For some time, ecology was somewhat of a Cinderella science, not being recognised as something that one could study but being seen as a fieldwork activity where the 'true' sciences were applied in concert to shed light on processes of interdependence. A process character and the questions ecologists asked to build pictures of interdependence was a sustained axis of tension in the Action Ecology Project in the mid 1980's.

environment. Rural figurations of outsiders became target groups of others within emergent education processes to create awareness and change for more sustainable living. These figurations were not involved in grappling with the nonsense confronted by the scientists, but were subject to a blend of experiences in nature and messages of doom and gloom, contrived interventions delivered, directed and mediated from above as environmental education. Within these developing processes of detached intervention through communication and extension models of process, humans became more and more dependent on *second-hand, non-experience control*<sup>24</sup> by figurations of professionals with a monopoly on a reality congruent symbolic capital for steering choices in everyday life. As these educational processes developed amongst levelling power gradients, intervention and top-down models of process were displaced by more participatory and facilitatory ideas that sustained the monopoly of the scientific elite. Paradoxically, an emergent reflexivity did not reveal this nonsense, as developing continuities served to sustain the social figurations of specialist players in narrowing games and within an involving moral imperative for engineering the lives of others to what was necessary and just in their eyes.

### *Common sense returns within levelling power gradients*

It took many years of struggle, within a widening levelling of the power gradient, for environmental educators to begin, with increasing detachment, to find a way out of narrowing specialising and spiritualizing turns, felt so fervently within small bands of dedicated spirits involved in the reshaping of others within guided nature experience. Unfortunately, much of a developing, circular nonsense here, was not apparent within a figuration of institutional elite, bound within detached images of fact played out to the objective rules of philosophy in the academy. In this story, the Western marriage of science within transcendental philosophy sustained circulating struggles amongst narrowing, objective, rational perspectives detached from the business of life. As the trajectories of these developing objective processes have

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<sup>24</sup> Beck, 1992:83.

shaped environmental education, so it has developed, as an abstracted terrain of cause and effect monopolising and seeking to mediate the maps of others so that they became aware and changed their behaviour.

An example of this is the early bio-physical straight jacket on the developing problem of soil erosion. This shaped the issue as a simple matter of ignorance and poor land management by peasant farmers. Within compelling narratives of these objective opposites, environmental education addressed problems of culture against nature. As this story developed, the models of process and ideas on how to change things became narrow, dialectic discourses arguing amongst the statements of experts and physical evidence measured in numerical quantities. These were constructed and contested outside the social space of the people experiencing the problems, before being reintroduced as second-hand, prepackaged conservation, development and education interventions to change the lives of others.

The nonsense in these narrowing circles of detached harmonies of benign control was slowly revealed in a levelling of power gradients within anti-apartheid struggles for social justice. Moral imperatives and rapid change has shaped specialist institutes outside state and academy with a third-party orientation. These NGO / CBO specialists, for example, do not seek to impose but to mediate control amongst the maps of others within models of process where the Other mediate themselves according to their own needs. An examination of mediating, rational objectivity within social processes of detachment can be illuminating of a developing condition where reflexive abstraction and strong, moral imperatives circulate amongst specialist individuals involved in an objective present of their own idealised fantasies of sustainability, peace and justice. Within this condition, individual experts and institutions can be blind to new injustices within their new, socially critical impositions as they seek to retain control over the right to draw the sustaining charts for others under a benign facilitating hand of education.

The currently popular, socially critical trajectory continued to argue amongst opposites for

restorative social justice. It is thus little different to earlier objectivities as it feigns allowing people to draw their own maps under a benign mediating hand of the expert. These developing processes may, however, be a reshaping struggle within which we begin to shed a philosophical legacy of objects, and relocate meaning-making in processes of struggle in the nonsense emerging within everyday life experience. Here, within grounded experiences, beyond a mediated struggle amongst opposites and hyper-real images of, and moral imperatives for, experts to engineer the worlds of others, we might, at risk, and in the company of others in our surroundings, confront the webs of nonsense that have come to enveloped us.

Scientific establishments, (social / physical) within an unchallenged dominance attained within detaching objective processes sustained and mediated within philosophy, are brought into question by Elias, when he argues that these processes can 'lock' the social sciences into:

*not being capable of freely attuning their forms of thinking and their symbolic representations to the world which they set out to discover. (Elias, 1982:14)*

This is apparent as a detached realism and prescription has shaped processes of social control that have become alien, obscure and inaccessible within struggles with developing nonsense in the involving risks of everyday life. Involvement and detachment, partners in the open-ended processural dance reshaping people in/and surroundings in open-ended struggles with nonsense have become isolated, the one knowing better and the other feeling stronger, they dance out obscure rituals that can become a discordant nonsense. It will be a protracted struggle for humans to harness the two of these in the experiences we share in continuing social life.

### ***Detachment, hand-in-hand in involving first-hand struggle***

Overall, therefore, developing institutional processes have shaped diverse environment and development processes of education that have come to extend a social prescription on the Others, despite recent facilitatory softenings and moral imperatives to empower the previously weak. Developing processes have shaped a prescriptive realism of scientific fact, and objective

research in a reified detachment that has come to have a diminishing value to the point of becoming dangerous nonsense. Two intermeshed processes have shaped these trajectories which have been accentuated within a levelling of the power gradient. The first has been detached, process-reducing objective research within narrowing, fixing and prescriptive orientations that have worked against a continuing reality congruent grasp of a world. The grip of systematic research by distant specialists has slipped further and further away from social experience and the risks in/of everyday life. And, hand-in-hand with this, the second has been developing, social processes where people are becoming accustomed to received, non-experience (second-hand) prescriptions as facts to guide steering choices on an objective terrain mapped out within the prescriptions of the academy. So, despite expert knowledge becoming more obscure and inaccessible, increasingly sceptical and more powerful others are subject to its prescriptions within the terrifying prospect of increasingly invisible risk.

Despite appearing to provide outdoor experiences to counteract the abstracted facts of school curriculum prescriptions, environmental education, within a developing institutional objectivity, is emerging as detached, prescriptive harmonies; benign impositions, reshaping of the lives of others by their own hand, empowered by facilitating experts. Small, functional units teaching in, about and for the environment within a globalizing, experiential and problem solving enterprise have had little sense of the circulating struggles within which we are intermeshed. After examining escalating risk, amidst scientific authoritarianism, interventionism and bureaucracy and increasingly invisible risk, Beck suggests that:

*Enabling self criticism in all its forms is not some sort of danger, but probably the only way that the mistakes that would sooner or later destroy our world can be detected in advance (Beck, 1992:234).*

Here Beck reveals the circulating struggles with penetrative insight and opens up the prospect of reshaping interepistemological struggles but without getting to the root cause of developing conditions as Elias does in his sustained struggle with the narrowing drag of a philosophy fixed within earlier human experiences of a finite reality. This enables Elias to offer a more

penetrative and challenging solution that we have been unable to face; open the door and enter an intergenerational socio-ecological world for meaning-making struggles in the company of others, within a sociological discourse in/on everyday life, without shedding the reality congruence of its detached knowing, and to wander lost in a confusion of circulating relativity.

Developing reflexivity within a radically marginalised and alienated intellectual class, may develop as a small, functional unit reshaping of people in/and surroundings, but this is unlikely to be little more than a cosmetic shift and a racy acceleration in discourse unless it can free itself from the tower of philosophical objectivity and re-enter the world of everyday human social processes, shaped within generations of developing struggle of which we have little sense.

Paradoxically, the power of a more reality congruent sense of surroundings has become a nonsense of narrowing power struggles rather than an open capital of intergenerational symbols for grappling with the risks revealing of nonsense in everyday social life. It has only been relatively recently that a developing inversion is enabling the struggle to enter the realms of the everyday social life and the risks people experience in/on the land.

As we have started to do this amidst recently declining power gradients in southern Africa, the struggles have not been easy. Residual spirits of objectivity, and a reflexive moral indignation at ourselves as others in the past, have conspired to lock us into an equally narrow condition of socially critical detachment. Here, we are still intent on education to our objective fantasies of Eden constructed within a retreat into the present and moral imperatives borne of dreams for/on the Other. These fantasies develop as reified verbal struggles in abstraction which can fail to realise grounded struggle with nonsense to shape changed self control and better social controls in the company of others towards a sustaining balance within the developing environments that we share.

## v Open-ended process images for environmental education

This study stands as an interpretative review of environmental education within, and around, my work situation in eastern southern Africa. Long-term shaping processes were examined in the company of Norbert Elias, using sensitising concepts within a social process perspective. The study has taken me/us into a developing sociological sense of earlier times, on a journey following continuities of social struggle as shaping processes of self, other and surrounding, as these emerged within a developing future that reaches into the diverse conditions of risk we share and experience as the present day. Here, with our developing ideas of environment / education, we find ourselves intermeshed in pressing socio-ecological risk threatening to engulf us, unless the environmental education we have caught, and been taught, helps us to remedy the pressing crises we share.

As I have worked with the engaging contributions of supervisors, colleagues, family and students I am hopeful that we are capable of meeting the challenge that Elias leaves us in his symbol theory. He looks towards developing processes shaping a unitary notion of nature and culture, a socio-ecological sense of humans in/and environment within sustaining processes, balancing developing orientations amongst self, others and surroundings. Within one of his concluding observations, reflecting a sustained, optimistic realism that characterises his challenging works, I have inserted an involved 'we' to rub shoulders with his detached 'they' for an open-ended sense of continuing environmental education processes that may be reshaping of us, in the company of others, within more sustainable surroundings where:

*Human beings (We), who represent what is probably one of the rarest events within nature, may have time and perhaps even opportunity for making their life with each other more pleasant, more comfortable and meaningful than it has been so far. No one can do that for human beings; they must do it for themselves. It is unlikely that they will find in the few million years left to them anything better to do than to search for just that, for the production of better conditions of life on earth for themselves and for all those they have chosen as companions on the way (Norbert Elias, 1991:11. My brackets).*

This open-ended, reflexive, socio-historical struggle in/on the land, in the company of others and the risks pressing in all around us is the best image I can construct for processes of environmental education. Of these, it must be reported that we still have only tenuous, but developing understanding. Within an Eliasian retracing of long-term developing processes, we remain with the question that emerged amongst human kind some time ago; as we develop a better sense of the story in which we are intermeshed, are we able to dance within the shifting rhythms we share, in the company of others, to sustain ourselves in/and our surroundings? This must remain an open question, as we seek change through environmental education to extricate ourselves from past and now less sustainable rhythms, an adjusting resonance that is increasingly in our hands.

Here, environmental education stands as social struggle, for more reality congruent models of process within shifting human conditions; grounded 'curriculum processes' that are reshaping of self-control, social controls amongst others and those in/over our surroundings. I cannot see us dividing this up, or separating these from the people involved in struggle within developing risk. Current separations and oppositions are outcomes of the social processes that have shaped the environmental education that has come to reside within the social fabric of conservation institutions in eastern southern Africa and elsewhere. We might well consider reshaping our institutions and clarifying developing notions of environmental education as a first priority in a changing world at risk. There could be no better way to do this than in the company of others as brothers (and sisters), and no longer as dark objects to be made aware so that they might be uplifted out of an ignorance of environmental degradation or restored to the utopia that preceded colonialism. Reshaping interaction around an ignorance amongst detached, institutional experts, and an equally blind involvement of communities in/at risk, suggests that a reshaping shift will not be an easy matter. The developing story thus far attests to that.

In calling for a reshaping shift in orientation, I am not thinking in terms of a paradigm shift to

'deep-ecology' or the restoration of an holistic, ecological world view (Capra, 1996:5). The roots of this web of shifting notions amongst opposing propositions, fantasies of interdependence, utopian mystical ideals of harmony and rational change are apparent in the social construction of ecological ideas on nature reserves and developing wilderness experience ideologies of environmental education. In examining the somewhat tenuous roots and circularity of these now strongly held narratives of rational ideal, I am warned and wary of a priori abstraction and individualising process reduction that might perpetuate detached institutional postures outside the context of developing risk and the people experiencing this. Institutional imperatives to educate have developed as intervention, engineering and the facilitating of change within shifting amalgams of strongly held utopian fantasies for and amongst others. These have recently come to be enacted in indirect ways through socially critical process of/as educative emancipation where people interact to change themselves under the enabling and mediating eye of the expert. Such ideas have a coherence in our times as emotionally satisfying mystical propositions dressed up in/as institutionalised political economies of facilitated rational change amongst others who sit to the side as if on a leash in obedient mimicry.

Within developing conditions of liberation and democracy, experts are now less inclined to impose on, or prescribe to, others. Facilitatory postures have developed opening up more, diverse and subtle forms of symbolic violence as reshaping process of social control. External impositions, including well intentioned and often patronising facilitation, are often resisted in diverse ways. Political sociologies of benign imposition and responsive exploitation / resistance can inhibit engaging struggle within the discontinuities in/of everyday life, a necessary capital of risk, ambiguity and tension for meaningful reshaping processes of change. With the process sociology of Elias to illuminate much of this emergent ambiguity in environmental education, my hope is that, with a better sense of self, others in/and surroundings, out of a developing long-term, an interplay amongst the challenging stories within which we are intermeshed and our emergent models of process for environmental

education might be equal to the continuing challenge.

Despite tension and ambiguity in the developing field, the outlook remains hopeful although a better grasp of processes shaping change in cultural world-view (social habitus) may still some way off. The best hope for greater congruence would seem to be in a better sense of the story within which we are intermeshed, as this throws up nonsense and risk for us to grapple with. Where and how these struggles develop will be the continuing story of environmental education in eastern southern Africa. Within this, the study stands as an open project.

## Afterword

Whilst contemplating this study some years ago now, I was advised by Joop Goudsblom not to cease the search for wider, long-term developing pictures of process. To challenge myself within the study I used free-flow writing of long-term processural patterns to seek images of process that might lift the mists of involved struggle. Aware of the crudity of my images, I none-the-less share this sketch in concluding acknowledgement of Norbert Elias and widening webs of interaction within open-ended developing processes out of a long-term.

### ELIASIAN SOCIAL PROCESS IN A WORLD AT/OF RISK

It may be possible that  
Some fires were started  
Sometimes by people  
Very long ago  
And over a long period  
Somewhere in Africa  
And elsewhere, no doubt  
We will probably never know.

Around fire  
In emerging dominion  
People were shaped  
In sustaining surroundings  
Tight figurations  
Closely involved spirits  
In developing environments  
Where shifting social struggle  
Civilised humans  
In opening intermeshing  
Amidst longer and stronger  
Chains of interdependence  
And in back and forth ways.

In wandering exploration  
Sometimes  
With developing detachment  
Outside imaginings  
Enhanced reality-congruence  
Shedding constraining myth  
To take the upper hand  
But not often tolerated  
So others took it back  
But not always  
And things changed  
Around and in civil people  
Locked in sustained struggle  
Civilising slowly  
And in back and forth ways.

Within these struggles  
Even early on  
Some painted pictures  
Images of things / people  
And much later still  
Within firming hold  
In/over surroundings  
Came landscape images  
Some painting themselves in  
But only very seldom  
After and over a long time  
And people puzzled  
In openings around/behind/ahead.  
Sometimes

But only seldom  
And slowly  
Some saw more and better  
To take greater control  
Of things, others and self  
And continuities changed  
Shifting and open-ended  
And people also changed  
Very slowly and unnoticed  
Some felt more civilised  
With increasing power  
In shared feelings in/of self  
Over things and others.

Blind within shaping processes  
In developing time  
Stories of origin had emerged  
Involving images in/of self-it  
Developing into worlds of fact  
Now felt outside and above  
Mediated by men of words  
As tightening worlds  
Looking in on themselves  
In rational circles of objects  
As towering abstractions  
Out of and in grand opposition.

Once  
Only fairly recently  
Within this spiralling story  
An outsider in looking back  
Over shaping struggles  
Stood on his own shoulders  
And looked around, down  
And back over the long-term  
And on self amongst others  
And in contemplating the story  
Found patterns of process  
Images of civilising  
Developing out of a long-term.

Looking in on a fire  
Still stood on his shoulders  
In self-disciplined detachment  
He suffered  
Yet traced civilising struggle  
In and behind torturous holocaust  
Recording sensitising processes  
Of barbarism in/as civilising  
Open-ended yet developing  
Out of the long-term.  
With these sensitising concepts  
Revealed in my/our story are

Images emergent within/from  
Small civilising fires  
Of/in eastern southern Africa  
And, in intermeshing struggles  
Amidst developing risk  
Involved in saving wildlife  
On detached island wilderness  
Surrounded by others of/at risk  
Was shaped a new sense of  
The pattern that connects  
And in emerging institutions  
Came models of process  
And moral imperatives  
To reshape others  
In fantasies of nature's harmony.

*Retracing this shaping story  
Etched in developing processes  
And not without struggle with self  
I may have seen beyond it and self  
But can't be certain  
And so I trace and tell a story  
Of developing social struggle  
Interpreting evidence  
Uncertain, open ended  
Looking around  
And back  
Within and forward  
Reflecting on shaping change  
Of self amongst others  
In/on surroundings of/at risk.*

*The developing picture  
Reveals tenuous openings  
Beyond it and self  
In the company of others  
Reshaping of ourselves  
Within a hostile land at/of risk  
Opening models of process  
For hopeful sustaining  
Around, among and within  
Where we may, with involvement  
In grounded struggle  
Develop the detachment  
To be civilisers of ourselves  
And of each other  
But we can't ever be certain  
And it won't be easy  
But then, it never was.*

(October, 1996).

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## APPENDICES

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## CLARIFYING ENVIRONMENTAL EDUCATION: A SEARCH FOR CLEAR ACTION IN SOUTHERN AFRICA.

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Our thoughts and actions have a way of following where our words have led us.

### ABSTRACT

This research examines how environmental education has been conceived and enacted within the same orientations that have brought on many of the environmental issues that confront us in southern Africa today. It questions prevailing modernist positions which have assumed that providing 'nature experiences' and communicating 'conservation messages' will foster the change necessary to resolve environmental concerns. Local examples are used to reveal flaws in past strategies of rational intervention before further examples are used to suggest revised orientations. 'CLEAR' and 'ACTION' are then used as acronyms to clarify enhanced approaches that are emerging to address the challenges of the next decade. To meet these challenges, rational intervention strategies might well be displaced by interactive classroom and community orientations which set out to co-construct local agendas of issues for reflexive social processes of change.

### INTRODUCTION

After nearly a decade of work on school and community environmental education programmes, I emerged from a particularly intensive period of co-operative resource development conscious of a series of recurring anomalies.

Environmental education workshops tend to be prefaced by inconclusive attempts to clarify the concept and scope of the environmental education whereas conservation gatherings usually call for more research and intensified school and community environmental awareness<sup>1</sup> programmes. Despite the apparent 'lack of clarity' amongst educators, the 'blind faith' of conservation scientists and increasing concern about conflicting approaches to environmental education, the dedication and solidarity of people working in the field is admirable.

With these interacting anomalies beginning to occupy my attention, I had the opportunity to undertake a short project to clarify aspects of environmental education in southern Africa. This took the form a visit to the Eco-Ed conference in Toronto to interact with world trends and a two month period during which I was able to visit and make contact with many prominent environmental education initiatives in southern Africa.

The research process took the form of consultations, a review of macro social trends, a survey of case studies and direct contact with a sample of prevailing approaches to environmental education. Its purpose was to clarify aspects of environmental education, to establish priorities

and to inform co-operative resource development projects. The research was centred on identifying historical trends, describing prevailing approaches within these and examining some of the assumptions that have underpinned our environmental education endeavours.

This work has revealed some challenging anomalies which, along with examples derived from field observations and discussions with local projects, are explored in this paper. Two recent acronym frameworks, CLEAR and ACTION, are used to illuminate trends towards community and school action research. Finally, revised orientations already apparent in mass media, school curriculum and community contexts are briefly explored before key conceptual issues are considered against trends in social theory.

An opening assumption of the project was that long-term success in our education activities will be dependent on the consistency of the ideas behind what we do. These ideas are likely to be more significant than compelling features which might have first attracted us to environmental education. It will thus be our capacity to reveal the thinking behind what we do, and to change our approaches in light of any new understanding, that will contribute to success in environmental education.

A dawning realisation, which gave sharper focus to many issues, was that the driving assumptions within our current approaches to environmental education have been drawn from the same modernist orientations that have brought on the world environmental crisis which we are attempting to rectify.

## MODERNISM AND WORLD TRENDS

Modernism, a sustained trend of progress and cultural change that followed the Age of Enlightenment, is described by Stout (1991:4) as:

the expression of the progressive age of the 20th century; a functionalist outlook that champions western models of intellectual, political and social 'advance' through 'rational' scientific and technological breakthroughs for the development of both the developed and the developing world.

This macro expression of the way modern societies see the world is interdependent within processes of development and techno-scientific progress which brought on a succession of environmental crises in the latter part of this century. One global response to these issues has been the defining of environmental education through a series of landmark conferences, notably the 1977 Tbilisi Declaration revisited at the Moscow Conference in 1987 (UNESCO 1988) and the 1980 IUCN World Conservation Strategy, revised in 1991 for the Earth Summit (IUCN 1980, 1991).

With schooling itself being a major reform within modernism (Popkewitz 1991) one might have expected environmental education to be conceptualised as a process of change that is transformative of schooling itself, and through this, the features of modern progress that threaten the quality of life of human society. The concept of environmental education has, however, seldom been allowed to aspire to these heights. It has in the main been conceptualised as little more than a vital enhancing 'approach', that has been undertaken within narrow orientations with features that have precipitated many of the environmental dilemmas that confront society today.

Ironically, therefore, throughout the shifting tide of events that have given rise to the modern concept of environmental education (Irwin 1993), the idea has been enacted within the prevailing orientations of modernism which have driven modern progress to a point of global environmental catastrophe. The significance of this is apparent when one looks at broad trends in the way environmental education has come to be enacted in South Africa.

## THE HISTORICAL ENACTMENT OF ENVIRONMENTAL EDUCATION IN SOUTH AFRICA

The need for environmental education emerged in southern Africa because both Modernism and its delinquent cousin Apartheid have given rise to unique and complex environmental problems (Ramphele 1991).

In response to these emerging issues, environmental education has come to be defined as:

An ongoing process leading to the development of a southern African population that is aware of, and concerned about the total human environment and its associated problems, and which has the knowledge, attitudes, motivations, commitment and skills to work both individually and together towards the solution of current problems and the prevention of new ones (Department of Environment Affairs 1989)

This definition leaves little space for either the critical transformation of schooling or for the reflexive reconstruction of modernism itself. One is left with a broad, neutral vacuum that has been reoccupied by prevailing modernist and utopian ideals of schooling, communication and community development that have little transformative potential.

This is to be seen in historical trends which reveal that for the past decade most conservation and environmental education activities have involved extension programmes, campaigns of 'targeted' messages and nature-centred 'experiential' and 'awareness' programmes for and in schools. These communication and nature experience approaches have been built around the notions of 'getting the conservation message across, creating awareness, clarifying values' and their ultimate goal has been to 'change behaviour.' They have been illuminated by a wide range of prevailing education ideas and are evident in a proliferation of extension strategies, conservation campaigns, development programmes, environmental education centres and attempts at curriculum reform.

Key features of these orientations have been:

- fostering awareness by communicating information about environmental issues ('hard facts');
- providing experiential learning processes in the environment ('heads and hearts'); and, through these,
- facilitating change for the environment.

These communication and experiential approaches are similar to trends elsewhere that have been characterised by:

technicist and structural functionalist orientations which have led to environmental education being seen as *rational processes of intervention* to modify behaviour

the communication of conservation messages to *defined target groups* to get new meanings across to

change awareness; and

*experiential encounters* where nature presents a reality that fosters heightened awareness, values clarification and behaviour change.

Key features of these interlinked positions and many of their assumptions have been overturned by research on social change (Popkewitz 1984:138), enhanced approaches to communication (Tomaselli & Shepperson 1991) and notions of how people socially construct the way they see the world (Berger & Luckmann 1967). The doubtful assumption that change is a rational process which can be caused by information and experiential interventions has, however, remained a cornerstone of prevailing approaches to environmental education.

These anomalies may account for much of the conceptual confusion and an apparent lack of success over the last decade.

#### Comment

Although 'mass media messages' have been successful for some marketing and public relations initiatives, the idea of message communication to cause behaviour change is questionable as a strategy of education. Similarly, the compelling notion of naturalistic awareness enhancement and change through 'experiential encounters,' a highly valued feature of wildlife education at field centres, is doubtful as a teaching and learning strategy to foster environmental change.

Both orientations have inconsistencies in their underlying assumptions and research support has been scant, methodologically weak and inconclusive. Productive environmental education outcomes of these orientations might, at best, be said to have occurred despite, rather than because of, the styles of communication and programme design. More recently, a focus on awareness and values alone, the only factors considered to be measurable, has been no more successful.

The central flaw in these forms of intervention, for all their good intentions, is that they have an untenable social engineering ideology coupled with simplistic notions of teaching and learning. These, quite simply, cannot accommodate the realities of how people come to socially construct and to change the way they see the world.

It is not surprising, therefore, that initial audience / participant reactions, frequently seen as indicators of success, do not often amount to much. This has been shown time and again in campaigns that have only achieved a superficial delusion of success. Similarly youth intoxicated with a doctrine of the wonders of nature, are more likely to become seekers of an aesthetic

hyper-reality<sup>2</sup> than investigative solvers of local environmental problems.

A possible exception within these broad trends has been sustained agricultural extension. Here some significant 'technology transfer' has been established by empirical studies but structuralist explanations that attribute this to features of programme design and implementation have been naive and untenable.

These questionable assumptions and the weak orientations of 'top-down message intervention' and well intentioned 'nature experience' approaches to environmental education are apparent in local examples.

## EXAMPLES OF MESSAGE COMMUNICATION AND NATURE EXPERIENCE APPROACHES

### Background

Faced with the drought and declining water quality there has been considerable public attention on the Dusi River in Pietermaritzburg. Its green banks belie its status as one of the most polluted rivers in Africa. Grey-brown trickling water conceals the diseases it carries to rural populations and a peaceful patchwork of rural homes masks the area as a battle-front for some of the most protracted sectarian violence and social upheaval of this century. Other parts of the river landscape bear the scars of apartheid and uncontrolled economic growth that has characterised much of the socio-economic history of southern Africa.

### Awareness communication

To educate the public and to foster awareness, conservationists and environmental groups have centred their efforts on trying to get the message of pollution and disease across using everything from dramatic newspaper and television (50/50) reports to 'green-group' protests during the run-up to the famous Dusi Canoe Marathon. Parallel with these mass media attempts have been extension campaigns on health and litter awareness with numerous litter clean-up days. We have now reached a state of message awareness where almost everyone knows that the Dusi is an aberration. Little has, however, been done by communities, usually defined on racial lines, who are apparently aware of the 'hard-facts,' having been the target groups of the messages of the last decade.

### Nature awareness experiences

By contrast, proponents of holistic environmental education have conducted nature walks and water studies in both pristine streams of local natural areas and in the river itself. This valuable fieldwork, rich with encounters in nature and with environmental problems, is often followed by reflective meditations during 'solitaire'

experiences when participants sit alone in the wilderness, close to the wonders of nature, to reflect on themselves and the state of the world (Fourie *et al.* 1990). During such an activity does the child-in-nature experience a 'washing over and a cleansing' that awakens a new awareness in the mind? Or, are the misguided good intentions of the programme design masking a doubtful form of environmental indoctrination to change 'heads and hearts?'

### Comment

In both of these cases I have drawn on generalised trends and features within prevailing approaches to environmental education. It would otherwise be difficult to illuminate underlying flaws within a conventional wisdom of functional intervention. This unfortunate desire to modify awareness and to foster values change, often from the outside, is perpetuating 'message communication' and 'wildlife experiences' as the cornerstones of environmental education.

In many situations where significant teaching, learning and change are apparent, interventionist ideologies and structuralist rhetoric tend to obscure significant relationships and events that might inform better approaches. Tragically, where a move away from these approaches has been apparent, change has often been cosmetic. Usually the language has been modified (eg. target groups to participants or communities), but in reality the same old ideological models have been picked up, dusted off and applied to another 'top-down' intervention.

I now propose to contrast these approaches with emerging alternatives by sketching trends towards community forum approaches and school fieldwork centred on action research and community problem solving.

## THE EMERGENCE OF ENHANCED APPROACHES

### Background

Over the same ten year period, where conservation messages and wildlife experiences have dominated the environmental education landscape, there has been some progress in clarifying better alternatives. Much of this has involved a determined seeking of more relevant approaches by working with people at a local level.

Against the earlier narrative of 'messages' and 'wildlife experiences' in the Dusi Valley there are emergent and co-existing alternative narratives of community forums and action research.

### From messages to forums and community action research

Within the Dusi valley, and other catchments in the Natal Midlands, people are building peculiar air-raid-like concrete, submarine-shaped structures that have come to be known as 'Phungulutho' Toilets.' These toilets stop human faecal bacteria entering the water, have become a small business and have improved health on a wide scale. They are not overtly [Ed.] part of communications / extension schemes to facilitate technology transfer or an offshoot of experiential reflections in the wilds.

They have, however, arisen out of the creative energy of a researcher from the Institute of Natural Resources working with local people on the important issue of health and sanitation. The toilets have now proliferated through community problem solving structures, with skills training, to foster small business development. Much of this is being done through community forums linked to development support groups or nature reserve neighbour programmes.

Exploring some of the successes, failures and conceptual features of these social processes of change would be a paper in itself. The broad overview above is simply provided to develop some of the features of enhanced approaches to environmental education.

These approaches have turned things around so that a 'messages' and 'target group' mentality might be displaced by the notion of 'participants' communicating to 'make meaning' within democratic forum structures. Here the idea is to build the capacities of participants to solve local problems with the most appropriate skills and resources that can be mobilised at a local level. Through this local groups are, hopefully, able to co-construct the conceptual, technical and social structures and capacities to resolve environmental issues.

### From giving messages and experiences to giving away the tools

The final example contrasts with the tradition of scientists taking water samples which are analysed at a central laboratory before a communications department passes on the results through media campaigns. The idea of these campaigns is usually to create awareness and to get public support through giving people what they need to know through messages that they can understand.

Project WATER is a GREEN (Global Rivers Environmental Education Network) partnership programme involving Umgeni Water, Natal Parks Board, Wildlife Society and various teacher groups. Through it school children and community action groups test and monitor local water supplies and rivers. Using simple low-cost tools, these groups can, in a meaningful and scientifically valid way, test water quality and take action to do something about the problems that confront their communities. This can involve networking with other

groups, lobbying local administrative structures for change, building better toilets, health education and wetland or catchment rehabilitation programmes.

#### Comment

These two sketches, in contrast to the former narrative of messages and wildlife experiences, are compelling examples of a potential refocusing and maturing of environment and development education. These enhanced approaches are, of course, 'message and experience' laden so one is not looking at a situation of 'throwing the baby out with the bath water.' One does, however, have to overturn the murky underpinnings and attendant misconceptions of messages / target groups and wildlife experience ideologies within many current approaches to environmental education.

### SOME IMPLICATIONS OF ENHANCED ORIENTATIONS

#### Mass media messages

The mass media as a source of challenging narratives is alive and well but its use as a means of rational social engineering for the environment is dubious and will, hopefully, fall away. The mass media will thus diminish as a tool for communicating the messages of the state and capital institutions, becoming a voice that tells stories about what is happening. Esterhuysen (1992) proposes dialogic approaches as an alternative to a targeted monologue. The idea of dialogic approaches is to tell the story of what people are doing and experiencing so as to foster debate and to provide models of possibilities. Bardwell (1992) also suggests that messages, particularly those with a 'doom and gloom' orientation, are unlikely to be as useful as positive as challenging stories of what is and can be done to solve problems.

#### Awareness centres

The field centre, which has become a place of experiential awareness and indoctrination for the environment, might well become a 'ghost town,' haunted by the misconceptions and myths upon which it was created unless it is transformed into a centre of community meaning making and action. This will mean that it becomes a place where people meet to seek clarity on environmental issues, a place that resources communities with the ideas and tools to solve environmental problems and a place that trains and supports people in these endeavours. A characterising feature of these centres should continue to be structured fieldwork where the 'hands-on' encounter is a key experience for participants to reconstruct their world view. This will enable the hyper-reality of a world view socially constructed from television images and urban experiences to be challenged and enriched through

interactions in nature.

Many education centres have been moving towards these orientations for some time, whilst others may become monuments to our zeal for nature to solve environmental problems by making people aware through experiential encounters which change their 'heads and hearts.'

Another important trend is that many conservation bodies can no longer afford to staff centres with environmental education professionals. This has meant that teachers who continue to use these centres have to plan and conduct their own fieldwork programmes. The enforced change has been lamented by many as a retrogressive step but the debate has revealed the untenable futility of environmental education as a process of 'moulding young minds' in the wilds.

#### Comment

Modernist / apartheid notions of experiential intervention and targeted messages are alive and well with prevailing political economies (institutional policies and funding) still supporting information communication and nature centres to cause awareness and change. Unfortunately, potentially more tenable alternatives often appear confused or complex. Clarifying these issues and seeking practical alternatives is thus an arduous and challenging process fraught with competing positions, vested interests, egos and complex language.

The rhetoric of academic debate has also contributed little illumination. It has, more often than not, tended to foster even greater confusion with the notion that 'everything goes and anything is ok' because each education situation is unique.

Personal experience of working through these issues in nature reserves, curriculum projects and classrooms has provided some clarity on an enhanced orientation. This is to be found where environment and development education processes give rise to agendas for 'CLEAR ACTION.' At the risk of oversimplification, I will first spell out some CLEAR guiding principles to modify and enhance features of the rational intervention and nature experience models of the past. This is followed by ACTION, an example of a participatory investigative framework to foster environmental problem solving at a local level.

#### CLARIFYING CLEAR ACTION

Together, 'CLEAR' and 'ACTION' are acronyms to clarify features of a widening range of structures and processes that are likely to be more productive than the 'top-down,' messages and wildlife experiences of the past. They are useful for viewing the school as a community of learners and for planning fieldwork but

were primarily constructed with practitioners working in conservation and community development situations. The idea of communities interacting within socio-ecological frames of reference (eg. catchment, biosphere, globe) is likely to be more useful than the categorisations in terms of race and language that have characterised social life in South Africa.

The idea of 'CLEAR Principles' (Jacobsz 1992) for environment and development education was constructed through contact with field centres and development projects throughout southern Africa. CLEAR is an open framework intended to enable development and environmental education initiatives, both inside and outside the classroom, to get to grips with critical features of participant-centred approaches to education.

### The CLEAR Principles

The 'CLEAR' acronym attempts to capture, through key words, some of the critical factors that make up a developing environment that is likely to foster empowerment and change.

#### Community

Meaningful communication needs a situation of sharing and trust - a sense of community. This does not simply exist but has to be co-constructed through participation that gives voice to relevant needs, empowers people to make choices and establishes the credibility of supporting partners. Another key feature can be community structures to support conflict resolution and to mediate disputes. Central to this are democratic and representative forum structures and a sense of ownership and communal progress towards a better quality of life and more sustainable resource utilisation options. Community needs analysis strategies are likely to be less successful than approaches centred on local opportunities.

#### Learning

Meaningful learning needs a common purpose, an action orientation with 'hands-on' encounters and reflexive critical processes that have the potential to foster change. It should be life-long, appropriate and enable developing environments where people engage in 'inside' discursive meaning making as well as draw on 'outside' ideas, skills and training services to solve local problems. Through these democratic structures and processes people will, hopefully, construct the conceptual, technical and social skills for environmental management and problem solving.

#### Environment

Four interacting factors are needed to frame a

suitable conception of the environment:

- \* *Political*  
Every action and decision has political implications, where politics is seen in its widest sense as power and decision making processes within international, national and civic structures.
- \* *Economic*  
Economic realities are decisive in any environment: Unemployment and poverty promote as much environmental destruction as monopolies and uncontrolled growth.
- \* *Social*  
The organisation of social space and relationships between people are key environmental considerations that influence economic, political and biophysical quality.
- \* *Bio-physical*  
Earth resources, ecosystems and life-support processes underpin and are influenced by all of the other key environmental factors.

All of these contribute to a conception of the environment as a *socio-ecological phenomenon which presents as a physical reality and is manifest within diverse socially constructed world views. These vary in terms of scale and context.*

#### Active awareness

The conceptual, technical and social capacity to foster change necessitates a sense of relevance that grows through positive attitudes / awareness that is co-constructed through clarifying encounters and actions rather than simply received as messages from 'outside,' or manipulated through contrived simulations.

#### Resources

Sustained and meaningful change needs access to, and the local mobilisation and grounded functioning of the necessary human and physical resources.

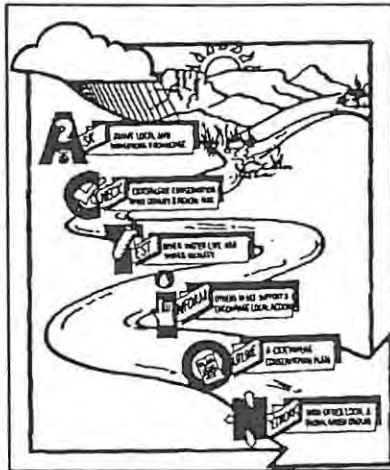
CLEAR suggests that environment and development education is much more than messages about problems and awareness experiences in nature. It sketches a picture of interdependent processes of social reconstruction through *community-centred learning* actions in the *environment*, with the tools to foster *active awareness* and the mobilisation of *resources* to promote change in diverse contexts of empowered decision making and choice. Much of this clarifies, broadens and enhances existing approaches to environmental education in both formal education and community development contexts.

CLEAR thus provides ideas for fuller conceptions of environment and development education, framing what might be necessary and how we may best go about it. Although better conceived, it is likely to be of little value unless it can be used to frame a relevant local agenda of issues and the necessary enabling structures and processes for change within community and school contexts.

To illustrate some of the changing orientations that might be necessary I will now look at key features of 'ACTION'; an example of a framework for fieldwork by schools, youth groups and community action groups.

**An ACTION framework for fieldwork**

The 'ACTION' framework for water quality fieldwork is a practical programme structure that was developed in South Africa as part of an international water quality



monitoring project with GREEN, the Global Rivers Environmental Education Network. It attempts to map some of the key enabling features for an action research and community problem solving process by either a school or a community action group.

It is important not to see this as a fixed routine or a recipe but rather as an example for clarifying similar enabling frameworks for better approaches.



By asking others and talking about local issues to start with, much of the conventional wisdom is mobilised and a cohesive group with creative potential and skills can start to take shape.



Opening ideas usually need to be grounded in a local situation. This can be done through fieldwork with supporting check-lists which can give further form and focus to an investigation.



A battery of 'hands-on tools' is then applied to test, isolate and clarify water quality problems.



The phrase 'report, get support and encourage action' provides an open framework for participants to work out who to contact and what to do.



The idea of outlining a plan of action is supported with 'tools for action.' These may be found or developed locally or can even be written with teachers and local conservation specialists. These 'tools for action' may range from cures for dehydration to better toilets and revegetation guides.



The potential of child-to-child report-back sessions, conferencing and computer networking with other projects around the world (GREEN) is of more than novelty value. These introduce participants to democratic communication processes and to new technologies which may soon be an everyday reality.

ACTION is simply an example of an enabling framework for fieldwork that was developed with teachers working on water quality issues. What has been learned is currently being applied to many other fieldwork topics and environmental issues.

**Comment**

The CLEAR Principles and the ACTION example of a framework for fieldwork allude to environment and development education involving much more than messages and experiences. They point to the need for a refocusing of intervention strategies, suggesting that we need to support the structures and 'tools' for environmental problem solving among participants at a local level rather than continue concentrating our efforts on awareness through external messages and wildlife experiences.

These clarifications have implications for:

- \* field centres;
- \* the school curriculum; and
- \* community development contexts.

## POSSIBLE CHANGING ORIENTATIONS

There will be considerable diversity within environment and development education initiatives as they are influenced by local history, environmental tensions and widening perspectives like, for example, peace education, human rights education, technology education and vocational education. To conclude this review I will sketch some of the trends that are already appearing and allude to other possibilities that might be productive.

### Field centres

Most field centres are struggling to meet these challenges, although some have been trying to operate as models of alternative technology, and lifestyle choices, that have less impact on the environment. Many centres are broadening their orientations to function as resource centres producing education materials with, and for, local schools (Taylor 1989), and a few have gone as far as trying to meet other local needs with skills training for small business development and adult literacy. Other centres are supporting teachers in curriculum development initiatives (Levy 1992). Many are also enhancing their all important function as nature areas or urban environments for hands-on encounters. This involves introducing groups to 'tools' for local enquiry and supporting them to investigate and solve local problems. All of these are productive directions but the challenge of achieving both greater relevance and clarity of purpose has hardly begun.

### Curriculum

Environmental education and the formal education curriculum is currently being investigated by an EEASA working group (Clacherty 1993). This is an important initiative because the proposal for a science, technology and vocational focus to curriculum renewal (Department of National Education 1992) has overlooked the White Paper on Environmental Education (Department of Environment Affairs 1989). The dilemmas of the developing environment of southern African must have a key place on any agenda for curriculum change. Professional processes of curriculum reform should include classroom action research (Robottom 1987, 1991) and also involve parents, employers and even pupils as participants. For this process, Baczala (1992) and McNerney (1992) offer useful tools for 'environmental auditing' within curriculum contexts. These cover an environmental education policy, the curriculum and resource use pattern in schools.

These developments are likely to establish environmental issues as a key agenda in formal education, thus firmly demolishing the myth that environmental education is something that is done by conservation specialists through experiential encounters at centres in wild areas.

## Developing communities

Another major challenge is a broadening of the scope of prevailing environmental education actions into the development arena. Development is a modernist notion that has a long history of failed 'centre to periphery' strategies. Its progressive response to environmental issues over the last decade, and a recent switch to 'grass-root' orientations, has produced a conceptual battlefield shrouded with rhetoric and rife with vested interests. CLEAR is an open framework for approaching environmental issues within 'school-in-community' contexts. This has led to environmental issues being addressed within the notion of environment and development education (EDE, Barrett & van der Merwe 1993) and through processes of 'action research and community problem solving' (Wals 1992). Another curriculum and community initiative concerned with appropriate technology and local problem solving is 'Education with Production' (Van Rensburg 1990).

Field centres, school curricula and development approaches all complement each other and overlap in numerous ways. This makes it difficult to continue dividing environmental education into distinct categories within formal, non-formal and informal education.

## DISCUSSION

The historical influences of modernism, intertwined with apartheid, appear to have contributed to environmental education being centred on 'hard-facts, heads and hearts' within a predominance of 'message communication' and 'nature experience' strategies. Weaknesses in these orientations appear to be linked to technicist and structural functionalist assumptions that environment and development education are intervention processes that can be managed, infused / implemented and evaluated.

This error is apparent in both modernist and anti-modernist assumptions which hold that change must be enacted through rational processes of reconstructive intervention. This is true for 'top-down' initiatives and for 'grass-root' facilitatory approaches, both of which are seen to be emancipatory towards utopian notions of sustainable living. This appears to have led to the recent modernist logical assumption that environment and development education must be a rational process to achieve sustainable development. Jickling (1991) explores some dilemmas in attempting to enact this orientation as 'education,' in his challenging and entertaining paper entitled, "Why I don't want my children educated for sustainable development."

Beck (1992) provides a unique critique of modernism which may resolve many issues within current approaches to environment and development education. To refute the notion of a paradigm<sup>4</sup> shift to an holistic

'post-modern' utopia (Capra 1982) Beck illustrates that enlightenment is still with us in the 'post-enlightenment' age of modernism. He also demonstrates that 'reflexive modernisation' is already apparent within reconstructive social processes redressing problems and reducing 'uncertainty' within our 'Risk Society.' Pierre Bourdieu (Robbins 1992) also treats post-modernism as a useful clarifying ethos and mode of critique rather than a switching pathway of utopian escapism. Nel (1993) complements these positions with insightful explorations of aspects of post-modern critique.

My purpose in citing these ideas has not been to spell out the features of a revised framework for environmental education but merely to suggest some authors and orientations that are likely to contribute to a clarifying process to enhance our endeavours.

#### TOWARDS AN ENABLING SYNTHESIS

Historically, environmental education has embodied 'risk,' 'uncertainty' and the potential to construct agendas of issues within reflexive social processes of evaluation and change. It has, however, tended to be enacted as a series of narrow interventions<sup>5</sup> to communicate 'hard-facts' or to experientially engineer<sup>6</sup> 'heads and hearts. Our environmental education efforts might best have been centred on enabling environmental issues to be placed on agendas within curriculum and community contexts rather than on attempts to implement and evaluate particular methods or processes for causing awareness and values change<sup>7</sup>.

Enhanced approaches that are both revising and departing from these narrow orientations are starting to emerge. These developments suggest a positive reorientation with environment and development education becoming an enabling focus for diverse *social processes which might inform and transform society*. For this to take place we will have to clarify approaches that might foster engaged change within socio-ecological contexts of environmental stress and reduce past modernist orientations that have set out to change heads and hearts through various forms of instrumental intervention.

A clarifying of the underlying orientations that distinguish between enabling and engineering curriculum and communication processes is at the root of how we might best approach environment and development education in a wide range of school/community, rural/urban and mass media contexts. If approached as an emergent critical process to co-construct an agenda for critique-in-action, rather than as an intervention to be implemented, it might well enable education to be enacted as:

*reflexive<sup>8</sup> social processes of evaluation and change through which people can restore and*

*coexist within the earth's capacity to sustain an interdependent system of living things.*

For education to include processes that successfully co-construct local agendas for research and change we might well give some attention to:

who sets the agenda of concerns;

how might environmental issues best be put on the curriculum / community agenda; and

which contexts and orientations foster reflexive change in community and school curricular situations?

Attention might also be given to enabling structures and processes for environmental management and change at, for example, community, regional, national and global levels. On this issue, after a review of environmental management trends in Western Europe, Ching-shyang Hwang (1993) suggests that:

public awareness of environmental problems, public access to environmental information and public participation in environmental policy-making are key to the success of environmental protection (p.102).

Past orientations in southern Africa appear to have made the error of treating environmental education as a concept to be enacted through processes of rational intervention involving 'hard-facts, heads and hearts' when it might rather have been treated as an idea to foster an agenda of locally relevant issues and actions.

In whatever shape or form, we urgently need tangible alternatives to the modernist models of environmental management and education that have proliferated in southern Africa over the last decade. There are, as yet, few coherent examples but numerous concrete features of existing fieldwork and participative programmes offer hope for CLEAR ACTION which casts off untenable modernist assumptions that have, inhibited many past initiatives. This change in orientation is now overdue if we are to meet the challenges of the next decade within the developing environments of southern Africa.

#### EE Riddle

Q: What, when you've done it, can turn out to be a better way to do what you should have been doing before you started it?

A: EE!

## ACKNOWLEDGEMENTS

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## NOTES

1. Environmental awareness is an 'objective' term commonly used in nature conservation groups to distinguish their environmental education functions from those of formal education agencies.
2. This may manifest itself in a desire to travel to areas of pristine beauty to escape environmental problems which are accepted as a reality of modern life that they are powerless to address.
3. A Zulu word meaning 'no smell'.
4. Thomas Kuhn (1962) uses this term to describe radical shifts within 'scientific revolutions'. It has, questionably, been applied to competing research traditions and to argue for a socially critical orthodoxy within environmental education.
5. 'Goal management' (Odendal 1986) and 'values education' (Opie 1990) are examples of rational intervention perspectives in South Africa.
6. Here I do not see a distinction between a notion of 'doing it to people' or of facilitating people to 'do it to themselves or to each other'. Both are questionable rational intervention orientations.
7. Examples of structural-functionalist approaches are: Odendal (1986) who sets out 'goal management' as a logic for evaluating targeted communication intent and Opie (1990) who, developmentally, maps individual awareness, isolates factors which mould attitudes and devises didactic orientations to foster better values.
8. This notion is widely used in social theory to refer to cultural reconstruction through critical social processes or experiential review (Bourdieu, P. In Robbins, 1991 and Giddens, A. In Cohen, 1989).

Following a recent formal education policy initiative by EEASA and the Department of Environment Affairs, this research has been used to co-construct a resource to encourage environmental education policy initiatives. This resource booklet on 'the environment, development and environmental education' is available for a cost recovery charge of R5.00 from:

SHARE-NET, P.O.Box 394, Howick, 3290.

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## A GRAND PLAN FOR EARTH LOVE EDUCATION IN SOUTHERN AFRICA: The dream becomes a nightmare. So, what went wrong?

Rob O'Donoghue

### INTRODUCTION

The recent critique of the Council for the Environment (CFE) core syllabus for environmental education (Taylor *et al.*, 1993) worried many people active in environmental education. Few have disputed that the strategies and claims of the Council merited a critical response. What appears to have been most disturbing, however, is that the critique exposed possible error and myth within approaches to environmental education in southern Africa. This has shaken the spiritual solidarity of some environmental educators and features of environmental education programmes are being found conceptually wanting.

In cases like this, where issues within a strongly held conventional wisdom are under review, critique can be extremely difficult. Fervent believers, spiritually committed to the cause, tend to reject criticism as academic or as simply a contesting opinion among many others of equal merit. Also, the adversity of the process may do little more than strengthen a resolve to resist outside criticism. Within this state of solidarity participants tend to be unable to separate error and untenable theoretical positions from the fundamental beliefs that they hold most dear. Any form of critique is consequently seen as a direct attack on the cause, in this case, an innate 'earth-love' purity of purpose intent on educating children in, about and for the environment.

### CONCEPTUALISING THE REVIEW PROCESS

With these issues in mind, and a desire to clarify questions related to this theory of Earth Love Education, this review has been situated within the documents that pertain to the core syllabus proposal (CFE, 1993). It is thus not a criticism of the theory from another point of view but is centred on the coherence of claims within the core syllabus, and the resource materials and research that are directly linked to and apparently underpin it. Evidence of correspondence between core syllabus, other books and associated research has also been derived from the documents themselves.

The review is thus an unfolding exploration that examines key ideas and claims within the documents. Its purpose has been to reveal the rationale that underpins the core syllabus and to assess if it is well founded within the research process through which it claims to have been constructed (Opie, 1992:65).

To achieve this the review initially traces correspondence between features of the core syllabus (1993), published resource materials for environmental education (1992) and the

foundational research (1990) from which they all derive. This reveals what we are dealing with and exposes key issues that need to be examined.

The review is then centred on the underpinning models and frameworks that claim to provide an 'earth-love' rationale for environmental education. This reveals a web of erroneous assumptions and inconsistencies within the theoretical propositions that underpin this approach to environmental education (Opie, 1990; 1992; 1993a). These problems may account for much of the nightmare of contested issues of process, orientation and substance that has accompanied the core syllabus project of the Council for the Environment (Taylor *et al.* 1993).

### REVEALING THE GRAND PLAN

#### Direct correspondence between syllabus and books

The initial critique of the core syllabus was centred on its construction, the claims it makes and its appropriateness for environmental education in southern Africa. The core syllabus booklet makes

no mention of authorship but the consultant who coordinated the development of the document was Dr Frank Opie (Pers comm). Figure One shows how the proposed teaching and learning method section of the draft syllabus corresponds with the

design of the 'Song of the Earth' series of books. That this key structural feature of the syllabus corresponds with his books is a serious ethical dilemma for Dr Opie and also for the Council.

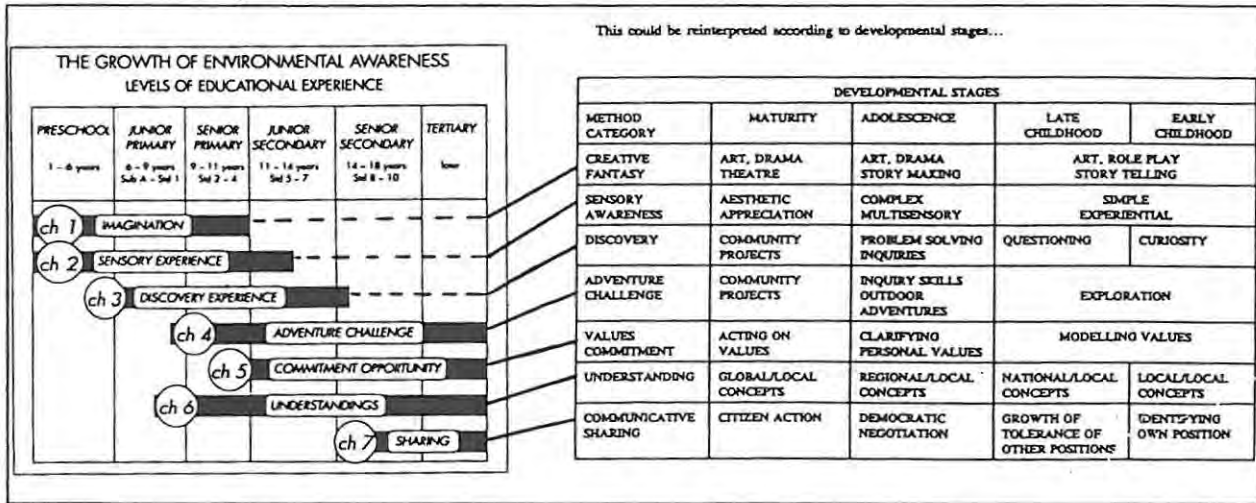


Figure 1 Book chapters (Opie, 1992)

Core syllabus developmental method framework (CFE, 1993)

### Logical steps to earth love

The shared framework of teaching and learning methods of the syllabus and books is, in effect, a rational framework for enacting the objectives and concepts of environmental education throughout the education system. To shape this 'catch-all' orientation for environmental education, the proposed core syllabus states that:

*Environmental education is by nature holistic and contains a strong values and skills dimension as indicated in the objectives outlined in this document (CFE, 1993:7).*

This orientation complements the earlier text, 'Rousing the Sleeper,' which is structured so that each chapter of the book, 'represents a further step on the road to earth love' (Opie, 1992:xiv). This structure is derived from a conviction that, 'there is a logical sequence to be followed if earth love is to blossom as a product of learning' (Opie, 1992:xiv) and that 'The seven chapters of the book represent seven different approaches to environmental education, each building on the experience of the previous stage (Opie, 1993:xiv).

### A grand plan to awaken earth love

The synthesis of logical stages of environmental education and its correspondence with the syllabus reveals that, in essence, what has emerged is a **grand theory of developmental ages and stages for environmental education to awaken earth love.**

The core syllabus states that environmental education:

*is both multi cultural and multi creedal and has a strong ethical base (values education) (CFE, 1993:6).*

The corresponding 'Rousing the Sleeper' series presents itself as *an integrated, holistic work which relates environmental activities to one another within the framework of a logical model based on real people's experience (Opie, 1992:xv).* It also states that *environmental education is almost everything about everything! That's what makes it so educational (Opie, 1992:xiii).*

Beyond issues raised in the earlier critique of the core syllabus, the key question in this review is, are these ideas and frameworks well founded as a

theory of environmental education? To establish this we need to look at where the theories and frameworks have come from and how they have been constructed.

### A UNIVERSAL MODEL FOR EARTH LOVE

#### The construction of a theory of earth love education

Underpinning the framework of ages and stages for awakening earth love is a theory of how earth love develops and how to teach to this desirable end. Opie (1992) states that:

*Before attempting to promote earth-caring attitudes, teachers need to understand how individuals come to their perceptions of reality. (Opie, 1992:64)*

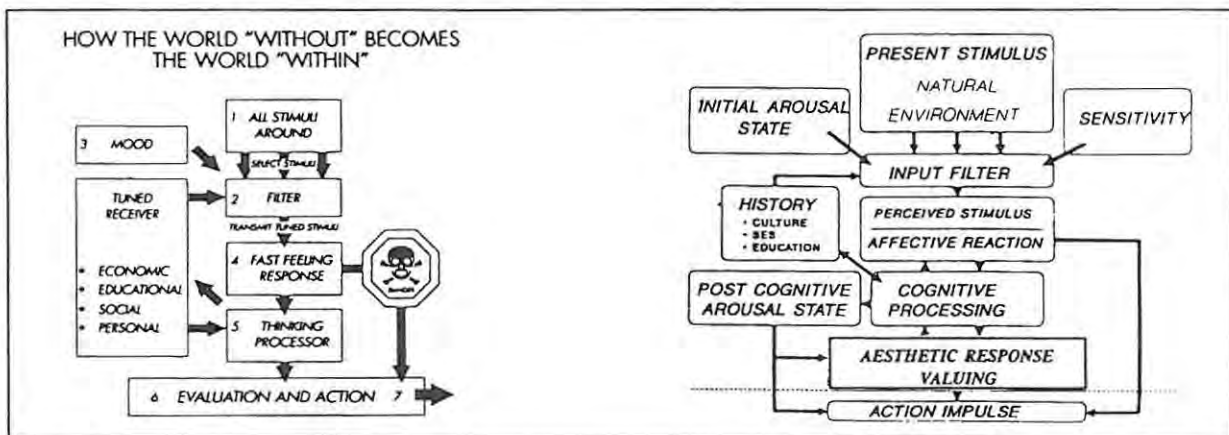


Figure 2 Model in books (Opie, 1992)

Model in research (Opie, 1990)

#### Deficiencies of correspondence within the models

The 'research model' developed within 'experimental conditions' appears similar at first sight but is significantly different to the emerging theoretical model of how the world 'without' becomes the world 'within.' Some notable differences are:

- \* Culture (as race), one of the most significant variables in approaching the differentiation of low and high aesthetic responses in the research, no longer features in the revised

He describes a model of 'How the world 'without' becomes the world 'within,' as a starting point. In support of this he points out that this model has been both credible and dependable under experimental conditions (Opie, 1992:65).

The design of the earlier research (Opie, 1990) does not substantiate this claim because the transformations through which the theory was constructed reveals a doubtful synthesis that is neither credible nor dependable. Figure 2 illustrates the model in the book (Opie, 1992:65) and the model in the earlier research (Opie, 1990:39).

model.

- \* The notion of a post-cognitive state of arousal / the aesthetic response of valuing, a key functional loop within the research model, also does not appear in the updated theoretical model.
- \* Another interesting feature of this somewhat linear flow diagram is that the notion of evaluation follows 'thinking' in the later model but does not appear in the earlier one.
- \* Also, the logic of the discourse of both

models is significantly different and does not always correspond with the functional stages of the diagrams.

The significant differences and shifts apparent in these transformations are more a 'dressing up' of the model to enhance its appeal than a simplification of the theory for lay readers. Although the omissions, transformations and ambiguities are of note, the key issue is how the model was constructed in the first place and how it was subsequently validated within the research process.

**The construction of the research model**

The research model was constructed as a *composite model of factors believed to influence perception of the natural environment* (Opie, 1990:39). It was developed as a framework for a research instrument to measure *factors affecting perceptions of natural environments* (Opie, 1990:51). Its content was derived from a list of *variables claimed to influence positive attitudes to the environment* (Opie, 1990.15), and a comparison of *lists of affective preferences* (Ulrich, 1983) and the *contents of components of perception* (Pocock, 1982).

It is of note that both Ulrich and Pocock explicitly avoided the trap of inferring functional interdependence within their categories of preference and components of perception. Despite this Opie proceeded to construct a functional model of environmental cognition with the elements of their models of perception (Opie, 1990:39).

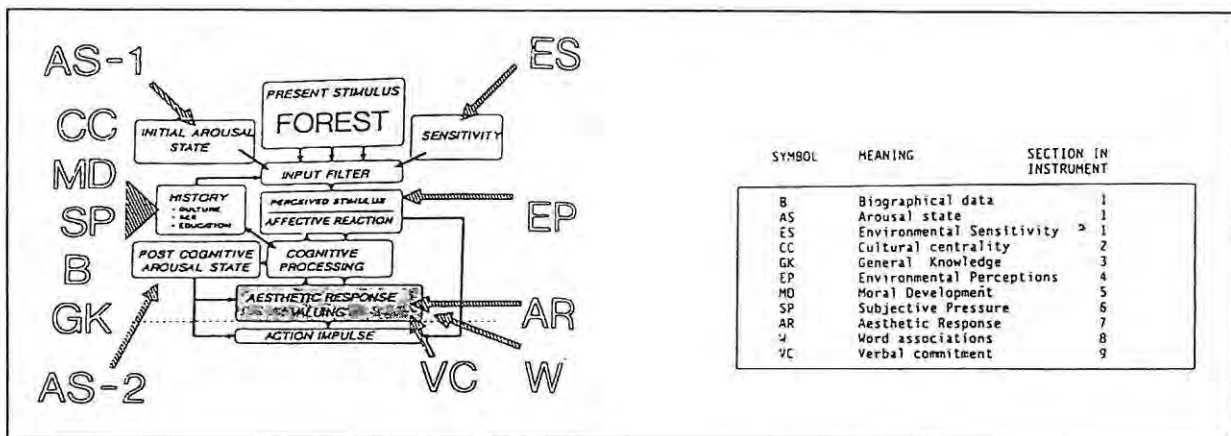
Within this loose eclectic synthesis, a series of errors and untenable transformations are apparent. In essence what appears to have happened is that lists of variables of perception were erroneously transformed / integrated into a functional model encompassing a synthesis of perception and cognition.

From this doubtful synthesis, the researcher appears to have constructed a grand theory of how the world without becomes a world of earth-love within.

**The validation of the model within the research design**

The research suggests that the model was operationalised through the development of an instrument for measuring aesthetic response (Opie 1990:46). A stated limitation of the study is, however, the measuring of aesthetic response as a dependent variable that predicts behavioral intention and transactional components (Opie, 1990:48).

In essence what was done here is the interlinking of components of perception within the flow diagram (Figure 3; Opie, 1990:51). That the perception variables are juxtaposed in a flow diagram (model) does not operationalise the model. The associative appearance of the model with each stage of the instrument simply creates an illusion that the instrument and model are a single entity. This illusion is carried through to the erroneous inference that the model was somehow validated within the research process.



**Figure 3** Linking of components of perception within the model (Opie, 1990)

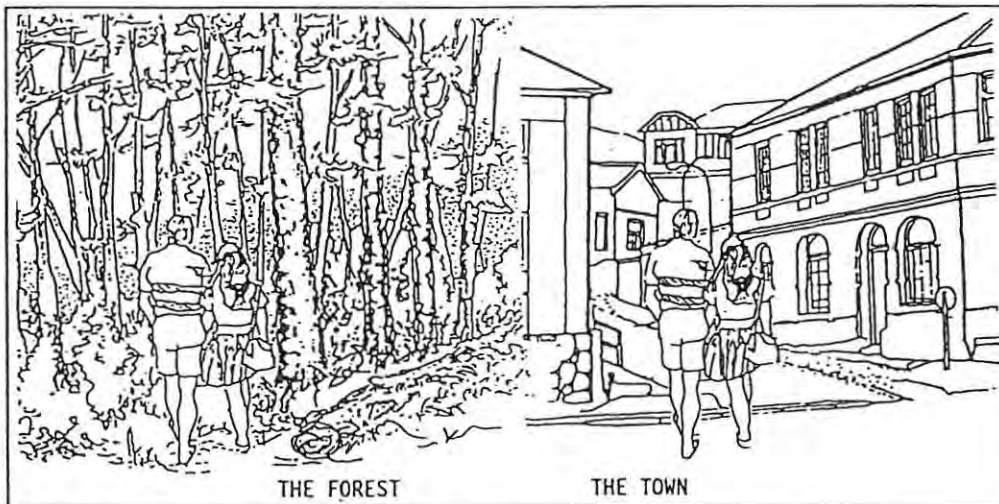
This is an error as the research itself only goes as far as claiming that *the components of the model were closely related to the formation of an individual aesthetic response in a forest environment* (Opie, 1990: 179) and that many of the factors within the instrument (perceptual components) *influence* it. The latter simply corresponds with the research from which the categories of perception were derived. In its causal inference are, however, the roots of the most serious error of all, the transposition of model and instrument into a grand theory. This occurred after the research and provides the rationale for the books and the method orientations of the proposed core syllabus.

What appears to have happened is that the research model became the conceptual foundations of a

theory of learning for environmental education. This is indefensible.

### Other design issues

A design flaw, of particular note is the translation of the questionnaire from English (origination) into other languages. The purpose of this was to assess the aesthetic response of differing racial groups. A problem here is that all of the students (English, Xhosa and Afrikaans) were given the same picture (figure 4) and asked, in their mother tongue, which place they liked best, and why.



From this and other questions and scales the Xhosa aesthetic response was inferred and found to be somewhat lower than others, but having a similar high and low score range. Categories of disadvantage / deprivation are used to account for this.

### A web of questionable assumptions, transformations and error

The most significant error within this is the transformation of interdependent variables into a structural functionalist model of how people construct the way they see the world. Were it not for the serious implications of the construction of a compelling theory of environmental education around this model, the problem could be dismissed

as simply a string of untenable transformations and erroneous methodological assumptions. The confusion between an integrated functional model of 'how the world without becomes the world within' and an instrument for 'measuring' aesthetic response is apparent throughout the work. If it is accepted that a model was constructed to develop an instrument, it does not follow that the apparently successful use of the instrument in some way validates the model.

The idea that this research process developed a dependable model of how 'the world without becomes a world within' is a serious error and entirely untenable. What presents as a compelling logic to promote earth caring attitudes is in effect little more than a collection of variables that appear

to influence preferences and components of how people see the world. These have, however, been erroneously concocted into a functional model of cognition and learning for shaping environmental values within a universal structure of ages and stages for environmental education.

THE LOGIC OF AGES AND STAGES

The origins of ages and stages

An integrated and holistic framework for earth love education is constructed around a 'feelings-first' orientation which assumes that *if the heart is right then the head will follow* (Opie, 1992:53). This is developed in a sequence of parallel stages where *the seven chapters in the book represent seven different approaches to environmental education* (Opie, 1992:xiv). The author claims that the sequence of stages *parallels, to some degree, the mental and moral development of the child from the preschool years to adulthood* (Opie, 1992:62). Each stage thus *reflects a theory of earth love education* (Opie, 1992:62). The central idea is that *peak experiences* of the beauty of nature (aesthetic response) lead to a *commitment to the earth* which occurs within a logical progression of seven interacting steps from imagination to sharing (figure 5).

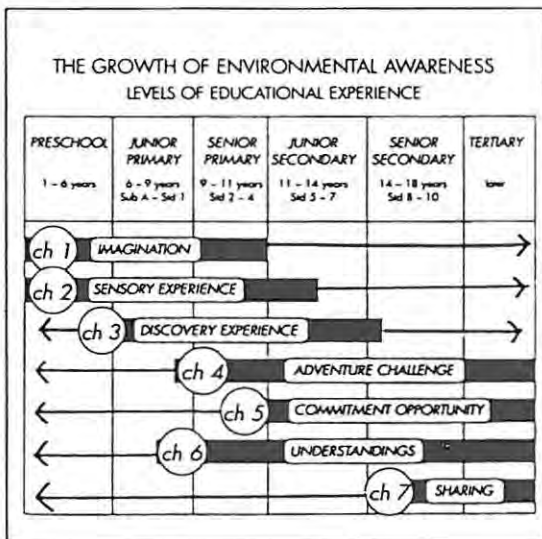


Figure 5 Extended range of stages

These developmental ages and stages appear to be

derived from a loose synthesis of Maslow's values theory, Piaget's stages of development (cognitive and moral), Kohlberg's stages of moral development and Caduto's model of values education (Opie, 1992:62).

By 1993, and referring to Piaget, *the inflexible lock-step process* of logical ages and stages is questioned and brought into doubt (Opie and Schuil, 1993:18). Following a discussion on this issue at a workshop in Durban, Opie resolved the problem of ages and stages himself. He demonstrated to us how the stages (Figure 5) should have been extended across the entire range of ages as they all apply to each age group.

The implications of this were lost to us at the time. By applying the categories to all ages, in effect, what he did was deconstruct the logical progression around which the books are structured.

Ironically, once the categories of environmental awareness are extended across the entire spectrum of ages, the somewhat tenuous distinctions between the categories of awareness themselves also simply disappear. The problem of ages and stages no longer exists other than as a defunct logic of questionable origins that underpins the structure of the 'Song of the Earth Series.'

The vexing problem that the seven categories for the growth of environmental awareness in the book (Opie, 1992:xv) do not correspond with or incorporate the research categories that influence positive attitudes to the environment (Opie, 1990:15) is, therefore, no longer an issue for this review.

A feelings and facts blueprint

The 'blueprint' for constructing earth love is introduced as counter intuitive to conventional education that has put facts before feelings. Through this inversion the author points out that *the earth love process is primarily a feeling experience based on fact and not the other way round* (Opie, 1992:52).

This distinction between fact (cognitive domain) and feeling (affective domain) is a key theme within the research (Opie, 1990:37), the books of theory and activities (Opie, 1992:52), and the skills

and values objectives of the core syllabus (CFE, 1993:12). The majority of these ideas can be found in a dialectic interplay of facts and values, and the notion of cognitive and affective domains, throughout the text.

The idea of post-cognitive arousal (Opie, 1990:39) is an example of this. It assumes that the two (cognitive and affective) are separate things that are functionally interdependent so that first the one happens and then the other. There can be little doubt that 'feelingful' states (arousal) associated with 'flashes of insight' during exciting nature experiences are important but the only logical post-cognitive state, in humans, is death.

The confusion of terms and states apparent in the research is carried into the theory of '*feelings first*' (Opie, 1992:52) and the claim that traditional education has involved facts to the exclusion of feelings. The separation of affective and cognitive is also evident in the underlying logic that individual *peak experiences* (cognitive and / or affective and spiritual) lead to a cumulative feeling and understanding state of *earth love* (affective + cognitive / wonder), and then to an informed *commitment* to the earth through action.

To what extent is this the product of an error that differentiates between, and erroneously places in logical sequence, the ideas of affective and cognitive processes, states and domains? A possible explanation for this confusion might be found in a review of the fairly recent social processes that have brought the ideas of cognitive, affective and psychomotor domains of knowledge into prominence in education discourse.

### The social construction of domains of knowledge

The idea of domains of knowledge was applied by psychologists who were attempting to make public examinations more objective and reliable. Bloom and his teams of psychologists did this work in America and it appears to have been of value, at the time, for making examinations better. Unfortunately, what seems to have happened is that teachers soon started to use the idea of domains to teach children to pass examinations and psychologists increasingly used it more widely to theorise about teaching and learning.

### Environmental education 'adopts' the affective

Recently environmental educators schooled in the idea of domains joined this story. They called for holistic education and argued that values were being neglected. To 'carve out a place' for environmental education they then theorised that environmental education was an affective methodology, a cross-curricular approach and a values clarification process. Some, Opie (1989:9) for example, also linked this values focus to research on the functioning of the brain (left-brain: right-brain ideas) and ended up with a 'feelings first' theory of environmental education as a cognitive / affective and creative / practical cross-curricular framework for teaching and learning through environmental experience.

This synthesis is now emerging as conceptually deficient and inconsistent. A root cause of this would appear to be the transposition of the idea of domains into a functional model of human awareness and learning. These models and assumptions need to be re-examined as knowing, feeling and doing are closely connected and our 'minds' appear to work as a whole and in socialised orientations.

## THE SPIRITUAL CONNECTION

### A summary of key connections

At the heart of earth love education is the idea of **aesthetic response**, conceptualised in the model and measured by the instrument (Opie, 1990). This human potential is assumed to emanate from **peak experiences** of the beauty of nature. These **mystical / spiritual** experiences, noted by *in the vicinity of 80%* of research respondents (Opie, 1992:43), are deduced to shape the foundations of **earth love**. This is theorised to emerge through a logical sequence of processes involving outdoor experiences, values building interactions, personal choice, commitment / action opportunities and counselling towards a **revised moral / ethical code**.

These key conceptual threads of the theory of earth love education have emerged through a complex mixing of ideas. These have then been juxtaposed

within a compelling conventional wisdom that appeals for global spiritual renewal through a purity of environmental education interactions in nature with children. The roots of these ideals are difficult to uncover.

### The roots of individual - global spiritual renewal.

Within this synthesis are the interacting ideals of personal spiritual experiences in nature, shared and nurtured within values clarification interactions, to foster a global spiritual renewal. This position is akin to the ideological orientations of 'Christian National Education' after its transformation into a global spirituality of Mother Earth. These orientations and themes either underpin the original theory or emerge within the more recent texts to embrace personal nature / spiritual experience, an awakening a lost indigenous wisdom and the holistic reintegration of Mother Earth and a personal Creator.

The outcome of this successive elevation and catch-all synthesis is the construction of a utopian orientation where environmental education is almost everything about everything (Opie, 1992:xiii). Here the eclectic coupling of ideas is taken to absurd lengths and environmental education attains a position which can accommodate not only everybody but also almost every idea that they might have. The theory of earth-love seemingly becomes a utopian 'religion' of global spirituality.

### The compelling force of the narrative

Despite its poorly founded rationale, this escalating earth love narrative has a compelling force. The task of exposing questionable and erroneous features of its foundations has been extremely arduous as erroneous assumptions, transformations and propositions are interwoven within a text that has been founded on the everyday issues and dilemmas in modern education. This discourse projects and shifts many of the everyday dilemmas of education into a compelling vision of global spirituality where the struggle for clarity is superseded by a faith in the purity of spirit of the individual child and Mother Earth.

This is to be found within the extensive play on

poetic / dialectic and inversion devices. These are used to illuminate existing problems in education or to provide a compelling synthesis to resolve them. Some examples of these processes are:

- \* the dialectic interplay of facts and feelings as head knowledge and heart wisdom to explain how the terrifying woes of atomic energy might have been avoided with a science that was more holistically constructed within an earth spirituality (Opie, 1992:53); and,
- \* the call for a feelings first and facts balance if the spiritual potential or natural curiosity of the child is not to be crushed or extinguished by traditional methods of education (Opie and Schuil, 1993:21).

An example of the compelling potential of this poetic and mystifying trajectory of the text is the opening exploration of environmental education which concludes that:

*It is, rather, a search for the sacred behind the secular, the meaning behind the moment (Opie, 1992:xiii).*

The theme of environmental education as the crucible for resolving current education problems through its quest for national and global spiritual significance permeates the text. This discourse also acknowledges that all life experiences differ and that every opinion has equal relevance to individuals. Its ideological framework exemplifies the uniqueness of individual spiritual experience within an infinite variety of possible life experiences. These processes and progressions serve to construct a relatively untouchable utopian notion of purity, respect and a potential for good in, around and through everything that is of value and meaningful to the individual. >

As the rationality of the discourse of researched models, logical ages and stages, and prevailing conventional wisdom is interplayed with a poetic mystification of child innocence, personal creator and Mother Earth, so an earth love theory of environmental education emerges as an ideology of global spirituality.

The outcome of this is a field that is all inclusive, all valuing and for all teachers everywhere. The

introduction to the book concludes:

*The emphases of environmental education vary with the life experience of its teachers. For some it is the understanding of the biological relationships of life. For others it is the interaction of the bio-physical and socio-political dynamics in society. Some teachers honour the challenge and lure of the "great outdoors" and the opportunity for personal character building as challenges are met. There are those who venerate the global life of the whole system, the great earth goddess Mother Earth, and those who worship the personal Creator of all things, believing that all relationships and gifts of life find their true meaning in Him (Opie, 1992:xiii).*

This conveys the impression that everything is included and that all orientations have equal validity both to individuals and within infinitely differing contexts. A tragic irony is that few teachers anywhere have participated in the construction of this narrative of global spiritual inclusivity but many are being attracted to its apparent rationality and the promise of better education.

### A vanishing logic

As all of the multiple layers of interlinked ideas and claims of earth-love education are subjected to scrutiny their claimed logic simply disappears within a morass of questionable eclecticism. The grand plan of earth education thus appears to be little more than a compelling illusion with little educational substance. This is particularly apparent in the eclectic blending of everything and anything into a spiritual framework within which there is a place for everything, all of which have merit to the individual.

Problems in this approach start to appear in its treatment of indigenous wisdom. This is a most recent theme within the Mother Earth narrative of the text and the previously deprived and disadvantaged indigenous peoples are imbued with the lost spirituality of earth love. The catch-all exploiting of this narrative reveals some of the nonparticipative problems that appear to have turned the dream of earth-love into an nightmare of confused theory and institutional vested interests.

## INDIGENOUS WISDOM

### Background

The idea of indigenous wisdom is a fairly recent theme that has swept the world. It emerged as a challenge to American society amongst oppressed native American peoples and also amongst other aboriginal groups in Australia and elsewhere. A key event that is widely quoted in environmental education circles is the address of Chief Seattle. This was apparently written by a minister of religion of European descent who was making an appeal on behalf of the indigenous peoples of North America. At the time they were being swept aside and destroyed by the colonists and his appeal was written within the prevailing notion of the 'noble-savage,' a 'civilising' theme that emerged to drive the 'conquest and liberation' of the non-Christian 'heathen savages' of other lands. This orientation has now been inverted to become a call from the oppressed indigenous peoples for an acknowledgement of a lost spirituality of Mother Earth to which they claim custodianship.

### A synthesis of global spiritualism and indigenous wisdom.

In South Africa the noble-savage has been a theme of both apartheid and the struggle for liberation. The origins and 'truth' of these social themes need to be carefully thought through or unfortunate errors can be made. An example of a recent error is to be found in Opie (1994) *Awakening the Sleeper: The Dawn Years*. Here the abstract and nonconsultative treatment of indigenous knowledge in the rain dance activity has led to unfortunate errors that some indigenous people find perplexing. The authors appear to have taken the North American idea of a rain dance (Opie and Schuil, 1993:36) as a universal indigenous practice. Its application as an environmental education activity in South Africa is, however, not compatible with the social reality of Nguni peoples who do not have a rain-dance tradition. Within Nguni traditions, young children did not dance at the fire but watched the adults and were told stories.

One must question how this dancing activity and its accompanying 'earthy music' will contribute to socially meaningful learning and an awareness of the importance of water for survival.

Similar questions might well be asked about some of the assumptions underpinning the majority of the activities in the books. Many of these activities are already widely used in environmental education in North America, Europe, South Africa and elsewhere for that matter. Most are useful and exciting but this is somewhat diminished when the logic of the series imbues them with 'earth awareness messages' for a sequential progression towards the desired state of earth-love. Many of these earth awareness messages are, however, simply compelling snippets (p.85), common sense ideas (p.49), practical notes to teachers (p.132) or interesting facts (p.74).

The reality is that the apparent logic of the earth love messages is non-existent despite the claim that the 'earth awareness message' bridges the gap between the theoretical base of *The Dawn Years* and the applied activities of the book (Opie & Schuil, 1993:14). The earth-love logic for the sequential inclusion of each activity is simply not there. This is the case for the claimed unfolding structure of the series (Opie, 1992:xiv; Opie & Schuil, 1993:10) and for the continuity of earth awareness messages as they are grouped within the conceptual clusters of earth love education (imagination, sensory experience and discovery experience).

A way to test this would be to photocopy a sample of activities from the books. Cut off the listed skills and earth awareness statement and then try to sort the activities into the conceptual clusters of ages or stages. The results will speak for themselves. What we found is a set of interesting and potentially useful activities that had been dressed up in an indefensible and incoherent theory of earth love education. Our conclusion was to keep the activities and the idea of earth love.

## SOME CONCLUSIONS

As the review process gathered momentum within the documentary evidence of syllabus, books and research, the whole earth-love theory emerged as some monstrous myth. It appears to have been shaped on narrow ideals within processes that have disregarded many of the participative principles of environmental education. It is increasingly difficult to account for this grand plan as anything other

than good intentions somehow lost within a missionary zeal and the commercial potential of the field. This difficulty is compounded by the apparent alliance of author and a state agency on a quest to implement this earth-love orientation even if it has meant having to circumvent the structures that have been established to negotiate the reconstruction of education in South Africa.

This review arose out of the need to clarify environmental education following the disputed issues of process, orientation and substance within the core syllabus proposal of the Council for the Environment. Clarifying a research orientation and grappling with the web of complex claims and shifting orientations within the emerging theory of earth-love education has been very difficult. The idea that this review may be divisive or in some way damaging to environmental education must be contested. In the long term, what could be more damaging than an undisputed core syllabus founded upon an untenable universal logical sequence to construct earth-love.

To many environmental educators, the fundamental notion for awakening earth love is beyond question. The syllabus and its underpinning theory claim to encompass these ideals of holism, sustainability, the crafting of earth love and community empowerment. Under scrutiny, however, the rationale has little substance and departs from the very ideals to which it claims to subscribe. In particular, the tragedy that there is little correspondence between the holistic and participatory ideals of environmental education and the construction and enactment of this grand theory is cause for reflection.

What one is left with is little more than an untenable eclectic blend of ideas and a morass of questionable transformations. Exposed within this are questionable ethics and a religious zeal / institutional self-interest that appear to have transformed the utopian dream into an eclectic nightmare of untenable positions and theories. It may be only of small consolation that theories come and go but the spiritual wonder of nature and the love of Mother Earth will remain a compelling synthesis that is central to all good education.

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## APPENDIX C

# Story, myths, competing perspectives and ways of thinking about indigenous knowledge in environmental education.

*In a revolutionary situation, the educator must day by day create the content and the form of his teaching activity.....and his advance training must primarily offer him the means of operating this continuous creativity.*

Pierre Bourdieu, *Le Deracinement* (p.177)

### ABSTRACT

*This paper explores how much indigenous knowledge has historically been transformed to become both a tool of oppression and a voice within the struggle for liberation. These anomalies present teachers with a challenge to use so-called indigenous / traditional knowledge as an enabling voice in a process of environmental education that is both transformative of and liberating for the cultural perspectives that are eroding the earth's capacity to sustain life. Some emerging positions on these issues and approaches to optimising indigenous knowledge in environmental education are sketched.*

### BACKGROUND

1993, the international year of 'indigenous peoples and repressive regimes,' has brought on a renewed interest in the tricky question of indigenous / traditional knowledge / stories and environmental education. At the annual EEASA workshop (1992) a working group was convened on story and indigenous knowledge. Whilst interacting with friends and colleagues exploring this field, a number of interesting issues and perspectives have emerged. I have tried to explore some of these and to map orientations that we are finding useful as we pursue the challenges of optimising this rich material in education programmes.

To reach beyond crude forms of ethnic categorisation 'indigenous knowledge' is taken to be any symbolic capital that is historically grounded and characterises the life-world of particular peoples of Africa or other socio-ecological settings around the world.

This paper was originally drafted as a discussion document for a co-operative project with the Institute of Natural Resources. The idea was to make available some of the rich and challenging materials that have emerged through recent work on 'ethno-ecology' and 'ethno-botany.'

### HISTORICAL TRANSFORMATIONS

#### Stories

Since the Victorian Era many of the oral traditions (stories) of Africa have been popularised as either quaint and somewhat 'primitive' fairy tales or as an otherwise lost legacy of 'indigenous' knowledge. Prior to these transformations, and a concurrent popularisation as

'fire-side tales,' the stories were a dynamic part of the social world of everyday life. This is true of cultures all over the world where stories are used by adults to direct, to inspire and even to 'terrify' children.

Many of the stories of Africa were plucked from this context of everyday interaction and were produced in written language. Through this the stories were both transformed into something they were not and became a powerful symbolic embodiment of the western notion of 'the noble savage.'

### **Myths within myths**

This metaphor (noble-savage) has perpetuated two myths that must be exposed in any educational use of materials which claim to embody traditional knowledge within some story form:

1. That traditional peoples lived in conscious harmony with nature and that the stories contain some sort of deep purity of values that has somehow been lost.
2. That the unique and novel stories of Africa make Africans different and somehow 'lost' often in a quaint and slightly 'inferior' yet noble way so that they should be respected for the purity and harmony of their 'noble savage' ancestry.

The compelling notions of 'harmony and deep traditional values' and the contrasting messages of 'primitive yet noble' make up a myriad of overlapping and conflicting messages in traditional stories.

### **The story-teller**

The story-teller has also been yanked out of the context of oral interaction and made into a sage who carries the capital of wisdom that is somehow transferred through the stories to construct the value frames that will enable the tribal culture to be perpetuated.

The question of the legitimacy of story and story-teller within transformed contexts is central to indigenous narrative all over the world, even to the Brothers Grimm. Transformations might best be seen as 'natural' socio-historical processes that have been part of the narratives that have constituted the way we see the world today. Ideological intent must thus be taken into account if we are to make use of this material for environmental education. The history of southern Africa, in particular, raises questions about how much of this material has been used as tools within social processes of repression and liberation.

## **STORIES OF REPRESSION AND LIBERATION**

### **Repressive narrative**

The notions of different and separate has been cornerstones of apartheid. Throughout recent history a portrayal of 'black' people as a primitive, loin cloth clad and yet noble children of

nature who has somehow 'lost their roots' has been a continuous message that has underpinned the notion of apartheid; separate but equal because different and yet to be respected. Many traditional stories are rife with these contrasting notions that typify 'black' people as the noble but lost children of nature.

This notion has also, in an inverted form, been a narrative within the struggle for freedom and thus a tool for institutions seeking to legitimate their functions in a changing society.

### **The switch to liberation**

As is often the case, recently there has been an inversion, a complete turning around of this notion, where the 'lost' and 'primitive' are the children of a western colonial mentality and where traditional stories become a capital of wisdom within which to seek a new truth and a rekindling of kinship with the earth. This is, to say the least, highly problematic, particularly when it is used by conservation agencies to legitimate their functions and by NGO groups to mobilise their constituencies against a legacy of so-called 'colonial conservation.'

## **THE CHALLENGES OF STORIES TODAY**

Ethno-ecological knowledge and traditional stories, in whatever shape or form, are thus fraught with challenges, ambiguities and dangers. In contrast to this, one does not have to use them much to realise that they are compelling, challenging and powerful resources in every teaching and learning situation in which they are used.

It would be naive to suggest that the indigenous story is a thing of purity and deep meanings that speaks for itself because when it was plucked out of everyday life to become an object it both lost its voice and carried differing meanings. Since then it has become the vehicle and the voice of much confusion, suppression and struggle.

It would be equally naive to suggest that we can restore its voice and freedom by returning it to the oral fire-side because what we have is not what was ever there.

It would be perpetuating the myths of apartheid to ascribe greater truth to 'traditional' stories against those that have elegance and strength in the diverse contexts of everyday social life today.

What, therefore, do we do with this compelling aberration?

If we use these anomalies to strangle it we will be losing untold riches but if we don't we will have to become skilled at not being taken in by its myths and not being lead astray by its compelling lies. I vote for living with it, loving it and being absorbed by the challenges that it casts before us.

Collecting, investigating and using the diversity of materials that present as traditional stories / indigenous knowledge within environmental education programmes has given rise to some approaches that are proving useful. The first is obviously as a tool for revealing myths and for unpacking stereotypes and cultural misconceptions that pervade our society. This is

obvious in light of the earlier discourse so attention will be given to two other orientations that are proving useful.

#### STORIES THAT BRIDGE AND INSPIRE

The work that we have been doing on water quality and ecology has revealed a considerable body of exciting 'traditional' stories and ideas. Our excitement has been in how modern scientific knowledge has illuminated the logic in traditional practices and how this can be used as a 'mirror' to reflect on the way we live today. Two examples of this have been particularly interesting:

1. Khulani Mkize and some of my other Zulu colleagues have described how the Nguni tradition of sprinkling the residue of a beer pot around the outside walls of the home reveals a compelling set of ethno-ecological interactions. The sugar attracted ants that ate termites living in and eating the grass from which the houses were made. Chickens attracted by the grain would also eat any termites and ants on the clear ground around the house that was swept daily, presumably to keep out pests. Ecology reveals the logic of these interactions, a rich picture of sustainable interaction with which to examine the patterns of life in our modern homes. These images might also lead us to question the notion that indigenous peoples lived in conscious harmony in nature.
- 2: Work on water quality monitoring has revealed much of the unconscious logic in traditional ways of collecting and storing water. Here key issues were a place where one could hear the river or stream, no frogs, brushing away surface 'dust / scum' before collecting, and storage in a clay pot. Once again modern science reveals a logic in these patterns of behaviour and brings into question aspects of modern life. Water one can hear is usually well oxygenated ('sweet'), many frog species inhabit areas rich in detritus and bacteria, 20 - 30% of bacteria is on the surface and fresh water microscopic life does not reproduce rapidly in a cool, dark container (Evaporation through the porous surface of clay pots cools the contents).

Both of these cases suggest that materials which portray traditional patterns of behaviour by both indigenous peoples and early colonists can be valuable resources for reflexive processes of environmental education.

#### STORIES THAT MIGHT EMPOWER

Following a similar pattern to Europe, much of what presents itself as indigenous medicine has been devalued by the march of modern scientific medicine. Historically psychologists and doctors have been socially legitimated to look after our minds and bodies whereas the 'witchcraft' of the Nganga and 'concoctions' of the herbalist are seen as dangerous and primitive. Sweeping generalisations that uphold modern medicine and traditional practices as of equal value are foolish. It is, however, equally foolish to reject the experiences of sustained traditional practice when science continues both to uncover myths in modern medicine and in many of its approaches to research.

Recent work on ethno-botany has revealed how traditional medicine has been sustained in the

face of its increasingly expensive modern counterpart. An escalating demand for indigenous plants and animals is unfortunately pushing some species to the brink of extinction.

This issue is rich with ideas, issues for debate and reflections which challenge our conventional wisdom. A revised approach to this area might empower us both to question sweeping generalisations and to seek a common sense wisdom in many traditional ways of doing things.

The mobilising, design and use of materials in these fields will need to be developed with care to reveal both strengths and weaknesses as well as to unpack competing ideological positions.

## CONCLUSION

Despite the complex issues involved, environmental education programmes might well explore story, historical patterns of daily life and traditional healing to reveal much of the logic of indigenous knowledge. This may enhance the value of lived experience and enable participants to engage in reflexive social processes that foster positive cultural change. Here culture is seen as that which humans have in common and as our socialised world view that needs to be reconstructed if we are to share a more just and sustainable relationship in the environment.

## APPENDIX D

# The shaping of environment, science, and technology education within the Share-Net project in southern Africa.

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*Concepts and theories take shape most fruitfully when they are developed while grappling with evidence of actual social process. Elias (Mennell, 1989 p270)*

### Abstract:

*This paper traces how, over a period of ten years, diverse social processes have interacted not only in response to, and to influence, societal demands but also to shape conceptions of environment, science and technology education within the project. It briefly examines some orientations within the broader framework of the region but is centred on the relatively narrow relational dynamics of the project itself. The review traces the chronology of key shaping influences within the design and development of resource materials, and the emergence of a revised orientation to environmental education. Within the recent expansion of the network it examines features of its emergence within the broader political sociology of the region. Finally, against the background of the review it briefly examines the challenge of responding to the demands of a society under increasing environmental stress.*

*The study problematizes large scale intervention strategies of curriculum change. It also suggests that the science / technology demands of society cannot be taken on face value and that these 'fields' cannot adequately be conceptualised outside environment concerns.*

### BACKGROUND

In southern Africa, early approaches to environmental education assumed that *experience* in nature and *information* on conservation problems (show and tell) would be sufficient to foster change. These approaches were displaced by orientations which treated environmental education as an experiential *methodology* to awaken awareness and to change attitudes and values. As problems within these narrow experiential orientations became apparent the field was increasingly seen as a broad *approach* to foster change towards a sustainable world view. Within this, the recent emergence of socially critical pedagogies, and the bracketing of environment and development education at the earth summit, has given prominence to *social process* orientations (O'Donoghue, 1994).

This shaping, reshaping and expanding clarity in environmental education has involved academic debate, curriculum and resource development, and grounded activities in communities, classrooms and field centres. These changes have been influenced by clarifying shifts that have taken place in education (eg the demise of structuralism) and a deepening of the world environment crisis.

These changes have taken place within the matter of a decade in southern Africa. They have been profound and the struggle for clarity continues. Today, features of many of these shifting orientations are apparent in all situations where people are involved in environmental education.

## THE REVIEW OF THE SHARE-NET PROJECT

This paper is a formative review of an environmental education programme in southern Africa. It spans a period of ten years and clarifying shifts from 'show and tell,' experiential awareness / values clarification methodologies and approaches, to a current concern for social process are evident. The review is formative in the sense that it is a preliminary grappling with evidence of how key social processes have shaped the project. It was undertaken as a contribution to an evaluation process<sup>1</sup> and to clarify emergent notions of environmental education.

The review examines Share-Net, a cooperative resource development project producing resource materials for environmental education in southern Africa. The resource development processes have, on a fairly modest scale, set out both to influence and to meet the demand for more relevant education in the region. This has involved the production of low-cost materials for environment, science and technology education. Its purpose has been to produce tools for active learning in the environment and to influence change towards a more just and sustainable society.

To undertake the review, we needed the tools to grapple with the complexities of the social processes both within the project itself and in the bigger picture of the sweep of history that has brought on the environmental crisis in southern Africa. To achieve this we drew on a process sociology<sup>2</sup> orientation. This provides a sense of a broader framework of historical influences and the conceptual tools for grappling with processes which have shaped the project, its resource materials and the emergent notions of environmental education.

## THE RESEARCH PROCESS

The study involved a brief review of the broader orientations in the region and an overview of the project itself. The review of the project is centred on interactions within the smaller framework of resource development processes.

Key events and influences were initially identified and described by Rob O'Donoghue who was intimately involved in the resource development processes. The evidence supporting these observations was validated and refined with Jim Taylor, network coordinator and co-worker on the project, who shared most of the experiences and lengthy clarifying discussions on journeys to and from workshops throughout southern Africa. Dienie Nel, with her knowledge of social theory and Elias, provided a mediating influence by helping to refine the research process.

Jim and Dienie commented on my portrayal of shaping events and emergent trends as the study developed. For the difficult task of structuring and editing the text, I erred on the side of letting some events speak for themselves and provided a commentary on other issues, shaping influences and shifting trends. To have

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<sup>1</sup> See Taylor (1994) for an interim report.

<sup>2</sup> Process or figuration sociology, refers to a perspective constructed by Norbert Elias, to grasp the relational dynamics of historical 'civilising processes' (Mennell, 1989). Its application within the review, briefly acknowledges a backdrop of long term relational dynamics at a macro level, the broader framework. The perspective is, however, applied to the project as a retrospective examination of interacting influences which, within these processual dynamics, have been enacted within the chronology of the relatively small scale relational dynamics of the project.

stated things more explicitly would not have been true to the realities of the struggle to clarify emergent ideas within the project.

The study spanned a six week period of dawn to dusk and, at times, way into the night activity. The process was punctuated by review sessions and numerous telephone conversations to clarify the research orientation, to examine evidence of shifts and to critique the emerging discourse. This paper is a tentative piecing together of key shaping influences within the shifting relational dynamics of the project and a clarification of emergent notions of environmental education.

As the review advanced and grappled with an increasingly complex web of shaping influences, there is a sense of a merging of the larger and smaller frameworks. Some recent experiences within this wider political sociology are also reviewed.

The orientation and sensitising concepts of a process sociology review provides a niveau for grappling with a continuity of change as well as the interacting figurations within this. For readers who are not familiar with Elias and process sociology, a brief overview follows.

### AN OVERVIEW OF A PROCESS SOCIOLOGY ORIENTATION

Process sociology has the potential to conceptualise the dynamics of society, people and change immersed in the uncertainty of global environmental degradation, a capacity that is particularly deficient in prevailing notions of environment and development education.

This retrospective research process grapples with the relational dynamics which shape us in our world, bonded together in a cumulative process of change. Nature and culture are seen as an interacting unity constructed within narratives which have been shaped and reshaped within long-term historical processes. Everyday life is seen as a reenacting interplay within these long term figurations and relatively short term experiences and concerns.

Process sociology exemplifies how, within a prevailing symbolic capital (narrative), social orientations and experiences both shape and enable us to construct our life worlds. This shaping occurs within socio-symbolic interactions and other experiences through which we internalise, signify and arbitrate our view of the environment.

Broadly speaking, what this is saying is that process sociology provides a conceptual framework of 'tools' for examining how people interact (*figuration*), and in so doing, construct a way of seeing the world. This shaping occurs cumulatively (*continuity*) within increasingly complex webs of interdependence. Symbols become meaningful (*signify*) within an interplay of the shaping influences of intimate contact (*involvement*) and a sense of removal (*detachment*) within these social processes.

A process sociology perspective is a means of grappling with the dynamics of a society struggling with more and more risks (*hegemonical-fever*<sup>3</sup>) and demanding more and more of education as it experiences the shadow side of modernity, global environmental degradation. It also enables us to grasp how, within the advance of modernity, we are now, as always, immersed in social processes which are sustaining and

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<sup>3</sup> This somewhat daunting term is a useful sensitising concept for grappling with figurations of talk, uncertainty and concern associated with the emergence of environmental problems.

reshaping (*eg double-bind figuration and reflexivity*) the trajectory of our interactions in the world.

Looking back (*retrospective process*) to map observable details and evidence of shaping social processes (*patterns of interaction*) provides a strong sense of an embedded clarification of the resources and ideas that have emerged over the ten-year period of the project.

The paper opens with an overview of historical trends and environmental education orientations in southern Africa to develop a sense of some of the broad dynamics within which the review has been undertaken. This is followed by a description of the Share-Net project and an exploration of key shaping influences within the chronology of the emergent resource materials. Finally, these insights are used to clarify environmental education and to reflect on how the study might inform the trajectory of the project within a changing and increasingly demanding society.

#### **HISTORICAL TRENDS: The broader framework**

In southern Africa, the sweep of history has constructed a unique modernity<sup>4</sup> that has been implicated in widespread environmental stress. Prevailing modernist perspectives have embodied, cultural separation (apartheid), a belief in an unassailable wisdom in scientific rationality, an associated faith that technological intervention will solve economic and socio-ecological problems, and an image of the untethered individual striving for material progress (Janse-van Rensburg, 1993). Features of all of these are embedded within current social and institutional orientations in the region.

Formal education, for example, has responses to regional development and environment issues with policy and curriculum development interventions to promote more appropriate techno-scientific progress (science, technology and vocational education). Also apparent are efforts to reduce the risk of environmental destruction (environmental education). The former is to be found in a proliferation of science education projects and, more recently, technology and vocational education initiatives<sup>5</sup>. These are increasingly addressing environment concerns but, until fairly recently, most environmental education has been enacted within narrow orientations centred on communication and experiential strategies to change awareness, attitudes, values and behaviour (O'Donoghue, 1993b).

There is an ironic problem here. The modernist orientations which are implicated in increasing environmental stress are being applied to seek solutions<sup>6</sup>. The Share-Net initiative evolved to clarify and to depart from these limiting perspectives, although this was not evident to participants at the time.

#### **SHARE-NET RESOURCE DEVELOPMENT: The smaller framework**

Share-Net is a cooperative project that was set up by the Natal Parks Board, the Wildlife Society of Southern Africa and the Southern African Nature Foundation with the endorsement of the Environmental Education Association of Southern Africa. It evolved as a cooperative support service to foster the

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<sup>4</sup> These include the colonial and apartheid patterning of communities and economic growth as 'progress.' Mostert (1992) provides a sense of the dynamic and intersecting features of this historical process and Ramphela (1991) a perspective of some of the current environmental stresses.

<sup>5</sup> See Levy, (1992) for a listing of some key projects.

<sup>6</sup> Elias illustrates how errors of orientation set up circular discourse that goes nowhere.

development of resource materials for environmental education.

The project started on a small scale within the Natal Parks Board and, a short time later, in a back room at the Umgeni Valley Project. Here resource materials were printed on equipment donated by sponsors. The Umgeni Valley project is an environmental education field centre in the Natal Midlands. It provides school children with the opportunity to study in a nature reserve and in the nearby town of Howick. This centre as well as a network of Natal Parks Board areas and surrounding schools became the crucible for the interactions that shaped the project.

The most enduring images of the early days of the project include teaching each other to use computers, shuttling too and from the art department at the Natal Parks Board offices, and frantic last-minute preparations for teacher workshops. From its inception, the place was a hive of activity.

The view from the back room (the Share-Net offices) is of a large 'hands-on' tortoise enclosure at which children and teachers frequently meet and talk. They usually do so on arrival at the nature reserve or just before departing hot, tired and grubby after a few days in the field. Popular topics of conversation are the incessant mating ritual of the tortoises, the adventures of the day or the anticipation of a night in the bush with wild animals, and without electric lights and hot water.

Outside with the children, the most striking view is the steep-sided valley of the nature reserve with its wildlife, rivers and forests sweeping away to the east. This is a striking contrast to the cities and townships from which most pupils come.

To the south, across the valley, is the town of Howick, with its famed waterfall, old dump, some shacks, a rubber factory, sewage works and Mevana Township. There are small commercial farms to the north and a large retirement village to the west across the main road.

This retrospective view of the environmental figuration of the Umgeni Valley, with its potential for diverse postures of involvement and detachment, paints a picture of an area ideally suited for shaping resource materials and concepts for environmental education.

To start with, we made do with what we had. Later, when more financial support was forthcoming, we put it into equipment and continued to try to be self-sufficient. Anything that could not be done within the project could not be done at all as there was little or no budget. The coordinator's salaries were paid by the cooperating agencies. Later, as the project grew, volunteers (unemployed youth) joined the project. They received board and a small allowance through the cost recovery marketing of materials. All the machinery that were bought were second hand and were similar to models that had a proven record in the print shop at the Natal Parks Board headquarters.

Work on resources for ecology teaching and workshops for teachers were started on a small scale with Natal Parks Board, Umgeni Valley field staff and a local teachers college. As this progressed, 'tools for

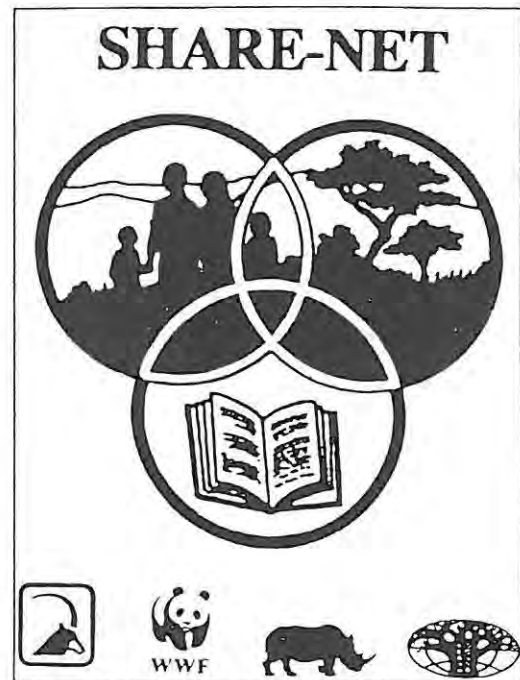


Figure 1 Share-Net logo

active learning in the environment' and practical approaches to environmental education emerged. By 1990, Share-Net was formally established as a wider network of cooperating partners producing resource materials for environmental education.

The following resource materials were co-developed, tested and applied within the project:

1. **Action Ecology ecosystem materials;** concept maps and manipulative models for exploring socio-ecological interdependence.
2. **Hands-on field guides;** simple fieldwork reference books for key habitats.
3. **Enviro-facts;** a set of sixty information sheets on environmental issues.
4. **GREEN<sup>7</sup> water quality monitoring materials;** Do-it-yourself low cost kits for exploring water quality issues.
5. **Enviro-Picture-Building;** picture cards for constructing some southern African landscapes (rural, urban, catchment and nature reserve).
6. **How-To cards,** a series of environment friendly techno-scientific options to resolve local problems.
7. **Indigenous wisdom cards;** a set of materials that uses modern scientific concepts to signify some historical social practices.

Over the years, these resource materials were a focal point for the diverse interactions that shaped the project. The materials all have differing origins within a sweeping process of cooperative resource development involving classroom teachers, environmental education and conservation field staff, curriculum projects and supporting education specialists. Emergent cooperative development processes and resource materials gave rise to the Share-Net structures and its resource pool over a period of ten years. Materials are marketed at workshops and by mail-order. They are also available copyright free to cooperating agencies, for redevelopment to differing needs and contexts in southern Africa.

#### **MATERIALS DEVELOPMENT: Some shaping orientations, experiences and events**

Within the resource design and development processes many issues, events, ideas and experiences, seemingly insignificant at the time, have become threads that have woven a rich 'fabric' of resources and concepts for environmental education. These experiences have also developed a sense of an interdependence among techno-scientific and environment concerns. The key shaping interactions, tensions and events described in the paper have been signified within cooperative resource development processes, ongoing interactions at teacher workshops, research reports and in the changing socio-political context of southern Africa.

The remainder of the paper examines evidence of these shaping influences within the chronology through which the resource materials and concepts of environmental education have emerged. Other economic,

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<sup>7</sup> Global Rivers Environmental Education Network

management and social influences are being explored elsewhere<sup>8</sup>.

### Action Ecology ecosystem modelling materials

In the early stages of the project, conservation and nature experience approaches to environmental education 'demanded' better ecology resource materials to create environmental awareness. At the time, there was also a strong modernist faith in the sanctity of the individual child and in the utopian notion of a purity within experiential interactions in nature. Despite the early ecological orientation, environmental education was always seen as much more than nature study in the outdoors.

The development of the Action Ecology materials created tensions about the place of ecological concepts in, and the validity of prevailing conceptions of, environmental education. The resource development process revealed that 'ecology' and 'environmental awareness' are not simply out there to be discovered<sup>9</sup> through individual experience in nature.

*The notion of challenging people to 'think like a Martian' was a significant feature that brought many of the prevailing ambiguities and tensions to the fore. The idea was to imagine yourself as a visiting Martian on a quest for 'environmental awareness,' like many earthlings. Where would you find ecology? Children usually answered, "In nature reserves," and others, "Everywhere! All around us." The idea that reality is not simply out there for Martians and children to discover was not understood by many, especially teachers keen on 'free' nature experiences or environmental educators with a utopian vision of sharing nature with children to*

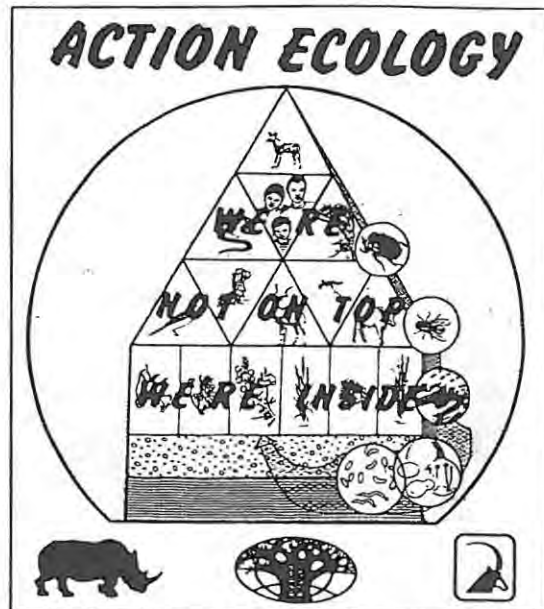


Figure 2 Action Ecology graphic

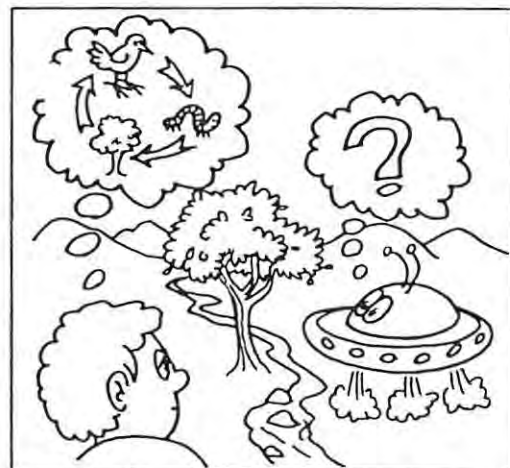


Figure 3 Think like a Martian!

<sup>8</sup> See Taylor, 1994 for an review of other social and economic forces.

<sup>9</sup> Once weaknesses within the idea of a child 'being filled with or drinking in' awareness from nature were exposed, a succession of more elaborate notions of the creation and construction of individual awareness emerged. These included the idea of children 'using what they know to make sense of what they see' and thus making classroom knowledge more relevant. This was later expanded to include asking / telling and guided questioning and the notion of negotiating / constructing of personal awareness within group meaning making interactions.

reconstruct individual awareness<sup>10</sup>.

This was possibly the most significant and sustained shaping tension of all. It took time, observations, reading, debate and eventually Elias, for clarity to emerge. This point is also retrospectively far more significant than it was within the sequence of experiences of the project. Elias, referring to time, points out that historically sustained experience / symbol orientations make reality visible and it is difficult for us to differentiate symbol and reality. Any distinction is blurred by a repeatedly affirmed adequacy / 'reality congruence' within the events of everyday life. In this way the symbol is reality within a continuity of orientations that have shaped it (Mennell, 1989).

*Ecology concept maps and modelling materials for building food-webs and other models of ecosystems were not readily adopted by environmental education programmes in schools and field centres. A memorable vision here is one of enthusiastically received workshops in the form of lectures and demonstrations on how to teach ecology. The success of these was followed by a string of invitations to conferences. The presentations had high entertainment value and included provocative ideas that inspired teachers. There was, however, little implementation of the materials within the school system or at environmental education centres (O'Donoghue, 1990).*

These emerging experiences of 'top-down' implementation weakness and the clarification of better cooperative resource development process occurred through a two year research programme. This shook the foundations of prevailing notions of environmental education and radically transformed the orientation of the project from 'top-down' to 'grass-root and participatory' (O'Donoghue and Mc Naught, 1991).

*The idea of a historical logical structure within ecological ideas came with the constructing of simple questions to guide fieldwork. This occurred over an extended period of working with children to prepare for ecology fieldwork. Through the development of concept maps and the observation of children learning in the field, it became clear that historically emergent form and function, distribution and abundance, and systems orientations provided a framework of simple questions to guide experiential fieldwork (See fig 4). The questions were used as a structure for the experiential induction of people into the symbolic capital of ecological ideas. The questions and the concepts of ecology appeared to support insights into the interdependent functioning of the environment and how human activities have contributed to environmental degradation.*

The successive differentiation of these ideas occurred over a period of years of cooperative work with teachers and fieldwork with students. Eventually a sense of clarity emerged with increasing use of symbolic interactionism and process sociology sensitising concepts within everyday resource development activities. These revealed that our capacities to conceptualise environmental problems are shaped within complex socio-symbolic and historical processes (Elias).

LOOKING FOR PATTERN:	
<u>Adaptation pattern:</u> (Form and function)	
What is it like?	(Why?)
What is it doing?	
<u>Spatial pattern:</u> (Distribution and abundance)	
Where is it found?	(Why?)
How much / how many?	
<u>Interdependence</u> (System dynamics)	
How do they fit together?	(Why?)
What is going wrong?	

Figure 4 Ecology questions

<sup>10</sup> Paradoxically, the view of experiential interventions to clarify values, and the notion of cultural difference, as race, needing different treatment, coexisted and were exemplified by a psychometric study. See Opie, 1990.

*A participatory evaluation programme<sup>11</sup> of fieldwork transactions and a search within symbolic interactionism for better conceptions of teaching and learning was particularly influential here. The evaluation involved many months working together in the field. This included tape recording teaching and learning interactions and challenging prevailing notions of environmental education.*

Retrospectively, it would appear that this early 'cementing' of relationships and orientations made much of the later clarifying struggle possible. The process happened with considerable 'blood, sweat and tears' but without serious rifts or the outright rejection of new ideas, some of which challenged prevailing thinking in environmental education. This process also developed a sense of a cooperative partnership where differing perspectives and experiences can help to make things clearer or better. Jim always emphasised working together to make things better.

*The 'Hands-On' field guides project, one of the first really cooperative resource development activities with teachers and conservation field staff, fuelled much of the conceptual tension. It also provided numerous experiences of fieldwork interaction and an emergent sense that 'grass-root' activities could lead to meaningful change.*

#### *Hands-on field guides*

*A key thing here was that, contrary to prevailing education perspectives, this project demonstrated that all children, regardless of race / culture, could use the simple pictures and text of the Hands-On materials to identify common organisms in the field. Working together, the children were also able to construct a sense of interdependence in the environment.*

*This was affirmed through experiences of children of diverse social backgrounds, 'equally' developing capacity<sup>12</sup> within meaning-making interactions in the field. A key experience in this process was work with a specialist on visual literacy. The prevailing conventional wisdom was that we would have to draw simple pictures for rural people. He advised us to draw fairly detailed and realistic pictures, and to try them out with children. Bheki Nene, a teacher, and I did so, with water organisms, in a river near a rural school. To our delight, the children were quicker and certainly more accurate in observations than many of the urban children to whom paddling in a stream and picking up bugs is often a new experience. They rural children could also, with help, cope with the difficult text. This was another early experience that flew in the face of conventional wisdom. It was through this type of experience that a social interaction perspective on environmental education, and a confidence to try things practically before making judgements, started to take shape.*

*A long term shaping experience was repeated observations of people using the materials to explore local*

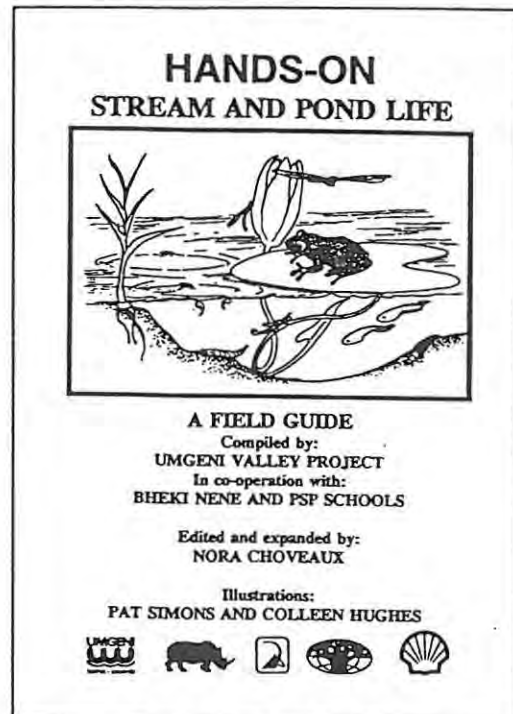


Figure 5 A Hands-on field guide.

<sup>11</sup> 'Pep-Up' participatory evaluation programme, Umgeni Valley Project (Wright, 1988).

<sup>12</sup> A conventional wisdom of difference and different 'treatment' within apartheid and structural functionalist narratives in education is challenged here but not in a naive sense of all children being the same.

rivers, school yards and nature areas. Tape recordings during participant observation sessions were particularly significant. It was around the complex diversity of these experiences that we framed the open-ended idea of 'dialogue / encounter / reflection' to describe the scope of teaching and learning interactions in the field.

This simple 'model' was tested and proven to be a useful sensitising concept for grappling with the interacting dimensions of a single process of complex and variable, individual and group, socio-symbolic interaction in the field. The grounded clarification of this idea challenged both naive experiential approaches and intervention perspectives of teaching and learning. The success of this sensitising concept might be accounted for by its concurrent malleability and reductionist simplicity. These features of the idea enabled later transformations which added an essential historicity, and the idea of reflexive social change.

The shared process of teachers writing and developing the materials in their classrooms also challenged prevailing notions of environmental education, curriculum development and social change.

Seemingly insignificant events like a young Zulu speaking teacher spontaneously exclaiming, "It's in the book!" when examining an earthworm during a workshop activity, continuously affirmed the value of the project. These experiences often became signifying flags for conceptual tussles with prevailing interventionist notions of education and curriculum change. They also contributed to an emerging view of environmental education as a participatory and 'grass-root' process of evaluation and change (O'Donoghue and Mc Naught, 1991). This position was however, in turn, to be challenged and clarified further during the next major resource development project.

### Enviro-Facts

The Enviro-Facts project was a response to a demand for accurate and simple information on environmental issues in southern Africa. It was undertaken through Share-Net by a contract researcher<sup>13</sup> and funded by the Southern African Nature Foundation. The Enviro-Facts resource sheets were written by scientists, edited for easy reading, and released in periodic batches through a supermarket chain (loose leaf issue-sheets) and through the Share-Net mail-order service (a library for school project work).

For the development of the fact sheets, a process of workshop consultations with teachers was favoured over the earlier 'grass-root' approach used with the Hands-on materials. The apparent 'top-down' orientation and the fairly narrow validating role of teachers provoked conceptual debates. A key event within this was a note from a Share-Net participant. He rejected the resource as inappropriate for curriculum use because it had been designed and written by outside specialists, ignoring essential 'grass-root' processes of curriculum development. Firstly, this experience tempered emerging conceptions of environmental education with a sense of pragmatism that initially acknowledged and eventually came to value the challenge of clarifying diverse approaches. Secondly,

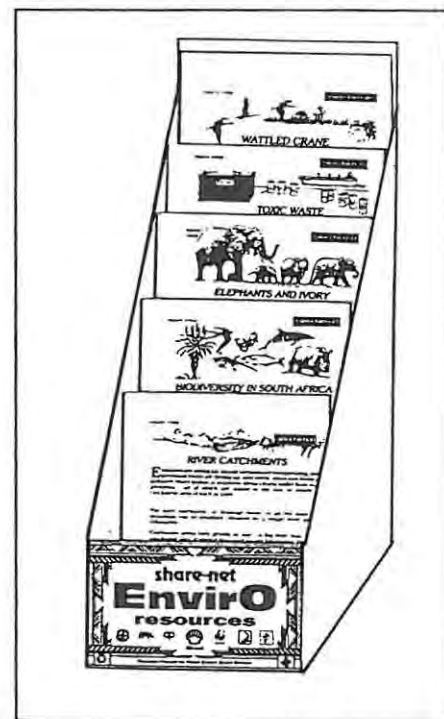


Figure 6 Enviro-Facts library

<sup>13</sup> See Paxton (1994) for an account of this project.

conceptual clarity was also added to emerging images of interactive social processes of change. Here the resource appeared to act as an 'external' symbolic capital to support a local engagement with environmental issues<sup>14</sup>.

Initially, the design of the materials included easy to read information, references for further reading, action ideas and possible contact agencies. As the project developed, however, contentious issues were presented as contrasting opinions or even as topics for debate. A noteworthy experience is the way Linda Paxton, the project coordinator, held-back the release of contentious topics like hunting, population and soil erosion until she had developed ways of representing competing perspectives. This sense of 'opening-up' issues rather than providing information / facts led to many hours of challenging discussion. A shift towards more information on 'how-to'<sup>15</sup> undertake actions like vegetable gardening and tree planting was also apparent.

The significance of this process is, yet again, retrospectively more apparent than it was during the project. At the time, the most practical way to develop the materials was to work with scientists.

By this stage a significant pool of Share-Net resources was emerging and the network of interaction / influence of the project was expanding. A key concern became the cost-recovery marketing of resources and support for the localisation of low-cost materials elsewhere in the region. The idea here was the sustainable management of the project and the development of resources to support local action amid the economic decline and spiralling environmental stress of the early 1990's.

This desire to spread the effect of the project initiated a phase of widening interaction and rapidly expanding influence. The web of significant shaping influences became more intermeshed and difficult to discern. A significant point is that much of the clarity which had been crudely differentiated during the earlier shaping events only became significant when it was successfully applied over an extended period, and on a wider scale. Good examples of this are the historical structure of ecology and the idea of encounter / reflection / dialogue.

A key reconceptualising influence that ran parallel with the Enviro-Facts project, was the GREEN water quality monitoring project. These historical and interactionist themes were repeated within its 'action research' approach to environmental education.

#### *GREEN low-cost water quality monitoring*

*At the time, the most pressing environmental issues were the drought that was ravaging the subcontinent and community water quality and health. With the support of GREEN, this*

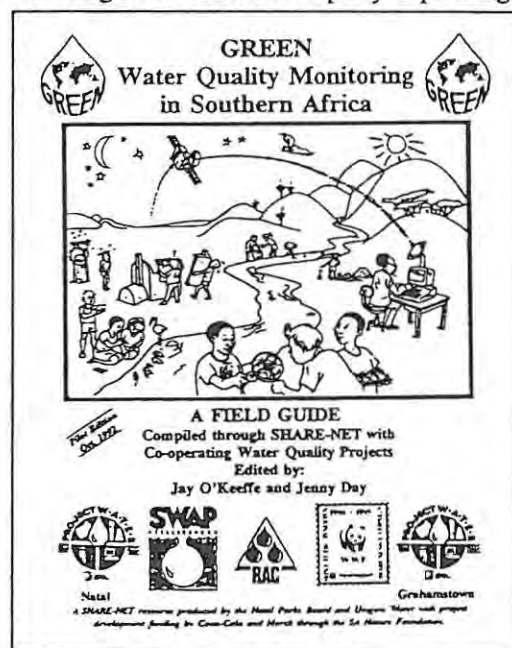


Figure 7 GREEN manual.

<sup>14</sup> This interplay of 'outside' and 'inside' orientations are particularly significant, as is the challenging of conventional wisdom in practical fieldwork and experimentation.

<sup>15</sup> This was to be the platform for the later 'How-To' series.

joint initiative<sup>16</sup> set out to develop low cost water quality monitoring techniques around an action research model of environmental education clarified by GREEN (Mitchell and Stapp, 1990; Wals, 1992).

This project, in particular, prompted a sensitivity to an interdependence amongst environment, science and technology concerns.

Of note, was the use of a simple coliform filter to capture and incubate bacteria from river water. It was as if the invisible, 'diseased water,' was made visible by the enactment of the test procedure of 'capturing' bacteria on a sieve (filter membrane) and then feeding them with sugar (nutrient broth) until the 'one became many' (cell division) in the warm environment of the petri-dish. What we previously couldn't see 'became visible' as blobs of thousands of bacteria: The 'little' problem that made 'big' people sick and was not visible to the naked eye. An added intimacy came with the incubation of the bacteria in a 'double sealed' petri-dish that was kept warm against the skin.

Repeatedly, significant insights and ah-ha experiences by participants convinced us that, despite the obvious novelty of this activity, there was something significant here. *A memorable event is a workshop with community health workers whose job was to educate people about 'disease in the water.'* They had only seen pictures of the organisms that make water 'diseased' so you can imagine the buzz that the experience provoked. Once again, it was to be some time before clarity successively emerged.

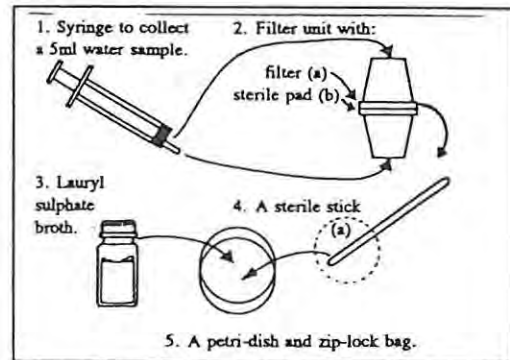


Figure 8 Coliform test sequence.

Work on the sociology of science illustrates how the relational dynamics of the work of Louis Pasteur gave shape to the figuration of modern science. Pasteur took the laboratory 'out' into the field. Under the microscope he revealed and thus signified the 'small' bacteria as the cause of the 'big' cattle disease problem around which there had been growing talk and concern<sup>17</sup>. He then took this outside symbolic capital back inside the laboratory from which was revealed the solution to the problem<sup>18</sup>. Today science is, as always, undergoing reflexive and reshaping processes. Scientists are increasingly going out to the field and staying there for inter epistemological clarifying discourse (Beck, 1992). The significance of the water project petri-dishes is that they remained in the hands of the testers out in the field. The local grappling with the problem might thus be more illuminating and productive.

Another intersecting issue was the strongly held notion that action-taking and change is what environmental

<sup>16</sup> Key co-operating groups were Umgeni Water (Project WATER), a researcher at Rhodes University (Ashwell, 1992), the University of Durban Westville and the Stellenbosch Water Project (SWAP).

<sup>17</sup> A useful sensitising concept for grappling with this figuration of talk, uncertainty and concern associated with environmental issues is 'hegemonical fever' (Elias).

<sup>18</sup> This sense of the relational dynamics that shaped science (Latour, 1983) is often used as a device to reveal the 'hoax' that created the 'hocus-pocus' in science. Elias, however, signified this figuration as a feature of an expanding networks of specialisation and power within the civilising process. This perspective gives us a means of grappling with much of the mystique and many of the communication problems within the detached orientations of modern science.

education is all about. This idea had not adequately been conceptualised within interventionist perspectives infatuated with the formulation of symbols and experience for the 'delivery,' 'engineering' or 'facilitating' of values, attitude and behaviour change.

At workshops there was a shift from a 'performing-seal' orientation, mentioned earlier, to an interactive approach, within a stream of shared action. This involved doing the activities together and, at times, working with groups of teachers their pupils and interested parents. Group after group of pupils with whom I was working seemed to become involved in a stream of action that had no breaks in it. This led to the development of the ACTION graphic (Figure 9). Its segmented flow gives a sense of a continuity of actions that seemed to help people to approach water quality fieldwork.

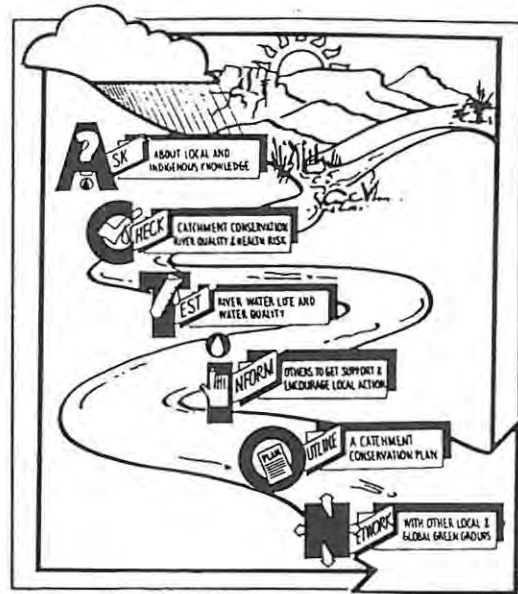


Figure 9 ACTION graphic

These experiences clarified a sense that teaching involves 'a continuity of constructing and reshaping interactions (dialogue) both through action (encounter) and removed from it'<sup>19</sup>(reflection). This once again brought into question the prevailing orientation of predetermined figurations of information and experience intent on shaping values and attitudes. 'Action as change' was assumed to flow from this. The project orientation of change within action was a significant inversion of this.

A predominance of values and attitude change approaches apparent the vast money being spent on mass-media campaigns to foster awareness of the environment, currently seems to be shaping a society of 'knowledgeable inactivity.' Once again, these insights have been slow and cumulative in their emergence within the shaping interactions of the project.

An early sense of socio-historical issues emerged with the realisation that techno-scientific advances bring with them the construction of a socio-symbolic capacity (insight) to conceptualise the 'invisible' (Beck, 1992). Within the project it became apparent that without appropriate social, technical and scientific experience and concepts, a sense of an 'understanding-to-act-on issues' was unlikely. This raised questions for conservation institutions with a monopoly over techno-scientific know-how and thus, in many cases, control over insights. The prevailing institutional orientation of communicating ideas (information) to target groups has failed to realise this. Much of the current institutional communication is thus stuck in a circular process of trying to send simpler and simpler messages to people who do little or nothing about the problems<sup>20</sup>.

*The slow emergence of these ideas came with thinking and talking about this as we watched and worked with pupils monitoring the quality of local rivers. The germ of the idea first appeared in the notion of 'giving away the tools of science' (Taylor, 1992) and in a short note on 'making the invisible visible'*

<sup>19</sup> A sense of the interplay of involvement and detachment orientations within encounter / dialogue / reflection situations of face-to face contact and in situation of removal, eg talking about this before and after, are becoming important here.

<sup>20</sup> Television has added a new dimension to this issue as it presents the invisible as a set of fixed image routines, a hyper-reality (Nel, 1993).

(RO'D).

Within this concern for capacity to visualise environmental issues, a parallel sensitivity to institutional power emerged. This developed when techno-scientific institutions responded to the 'threat' of the simple, low cost techniques.

*A water quality card for identifying pollution according to the type of organisms found in the water was rejected as invalid by one group of scientists, whereas the data from another supported it. Both were later shown to be correct as the real issue was the institutional exercising of validating control. The problem emerged when the non-participant group was unable to see the education value of a fairly crude instrument in the hands of children. To them, the card was a 'threat' which was teaching incorrect information about indicator organisms. If this dispute had developed, it may have been necessary to scrap the resource. The problem was solved by a lengthy meeting during which we 'thought like children' and simulated the application of the resource in a river.*

This experience of institutional tensions, and the establishment of Share-Net as a resource centre within a network of cooperating partners, began to clarify a sense of a 'political sociology'<sup>21</sup> of change. Much of the time we spent on the telephone (mostly Jim) was working through doubts with participants in the network and encouraging them to cooperate with others who had similar ideas. The significance of these 'social process' was not apparent at the time. Jim spent more and more time on the telephone as I worked on the development of resource materials with teachers. Through this, the power of the project increased and 'us, our resources and our ideas' were in greater and greater demand.

The second issue within this project was the startling impact of an exploration of historical trends for introducing water quality projects.

*Before being introduced to the water test kits students were told to 'ask local people about historical change.' Prior to this approach, despite orientating discussions and outdoor experiences, students talked most about and struggled with procedural issues in the water quality testing process. It was therefore difficult to deduce water quality inferences as students were often more concerned about whether their results were right or wrong. Starting-from-history through local interviews to map out the emergence of local water quality problems seemed to mobilise a symbolic capital that transformed the dialogue around the testing process. A historically located agenda of local issues was thus far more significant than an experiential starter-agenda involving dialogue about local water problems and observations in a river catchment.*

*A key experience of interest value was a group of young children from an exclusively 'white' school learning with 'black' children, possibly for the first time, in a river. They met an old Zulu man. They asked him if he had known the river in his youth and how it had changed. What followed was a lengthy and animated discussion, with the Zulu speaking children interpreting. In their report back on the interview, and with great excitement, they shared snippets of indigenous knowledge that were to contribute to the development of the indigenous wisdom project. One of the things he told them was that for about four days after a flood (while the flood water was still brown) people would not collect water from the river.*

*A few months later we met with health workers in another part of the country. They said that one of the problems in the Dusi River catchment was to educate the people that contamination was worst when the*

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<sup>21</sup> A sense of this emerged later in the project with the text by Tom Popkewitz (1992). The significance of this is beyond the scope of this review and is being examined elsewhere.

river was in flood. What appears to have happened here is that a health warning to canoeists, who used the river intensively at flood times, was also being targeted at the local people<sup>22</sup>. We told them the story of the old man.

This and other experiences that followed, illuminated the socio-symbolic shaping of reality and a concern for an agenda of issues signified within reflexive sociolinguistic processes and local experiences. But, not in an individualist or a naive sense of leaving people to solve their own problems<sup>23</sup>. Shared interaction seemed more important.

These apparently minor and increasingly intermeshed shaping events underpinned the clarification of key conceptual issues within the three-year cooperative development of water quality materials. They were affirmed when socio-linguistic experiences with the Enviro-picture-building resources were also found to support better dialogue and imaging of local environmental issues.

### *Enviro-Picture-Building*

*This activity had initially been developed by a timber company but was redeveloped through successive processes of cooperative pilot testing with teachers and environmental education field centres. The resource had been designed as a training routine (Picture-building, problem-solving and action-taking) to systematically inculcate environmental awareness among African plantation workers. It was a popular part of the training course.*



Figure 10 Picture-building graphic

The intervention and behaviour modification determinism of the training approach had been challenged and overturned by experiences in environmental education. The value of the resource for mobilising a symbolic capital with which to see and to engage with the environment was, however, educationally significant and potentially very valuable.

We had the picture redrawn to remove race / cultural stereotyping and the materials were redeveloped with teachers over a six month period. The physical design of the materials remained essentially intact but cooperative building activities, dialogic techniques and investigative problem solving strategies displaced the earlier instructional determinism.

*The game was not only fun but by building pictures before going outside, students were better able to initiate discussion and to pick out environmental issues in the landscape. Prior to this, the conventional wisdom was to wait, and to wait, until pupils were forthcoming with their observations of what was there for the eye to see. The teacher had to be patient and to draw it out of the students until they developed confidence. With the images and language from the picture-building game as a symbolic capital for interacting with the landscape, pupils had a lot more to say more quickly. The narrative was also less of a*

<sup>22</sup> This interplay between contexts, somewhat comical here, was a key shaping feature within increasingly complex webs of interaction.

<sup>23</sup> This is an important shift from the central handing down of information to an interactive clarifying of ideas within democratic orientations. This shift is apparent within the broader framework of South Africa where it has, unfortunately, spawned the 'facilitator,' an 'expert' who is paid by the 'outside' to help the 'inside' shape themselves.



The issue of indigenous knowledge appeared within both the Hands-on programme and the development of the GREEN water quality kits. This may have been stimulated by the 'international year of indigenous peoples' (United Nations) but prior to this we had encountered snippets of indigenous practice that modern environmental sciences showed to have been a practical environment-friendly wisdom. These included water collection traditions and aspects of household management. They have been of more than novelty value, possibly enabling some students to be more forthcoming in sharing their common-sense ideas and experiences. We still lacked a coherent sense of what to do with 'indigenous knowledge' until the recent publication of a book in Zulu<sup>25</sup> on indigenous interactions in southern Africa.

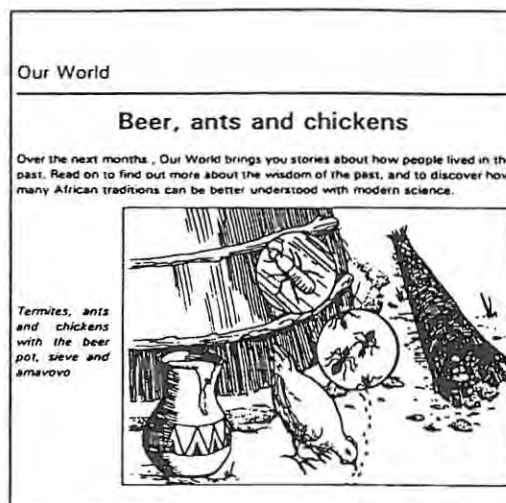


Figure 12 Pilot materials

This book has provoked some interesting reactions. An elderly Zulu woman read the book from cover to cover over a weekend. Like many Zulu people, she reads English better than she does Zulu. Despite this, she read on industriously throughout the weekend, peppering her daughter with wistful reminiscences, challenging insights into how things have changed and the suggestion that we might get some good ideas from the past<sup>26</sup>. This and other similar experiences that colleagues have shared, led us to develop a cooperative project with the author of the book.

The opening narrative of this new project reveals links with earlier resource development experiences. There is also a sense in that the materials and concepts of environmental education are all threaded together within the chronology of diverse interactions that shaped the Share-Net Project.

## EMERGENT ORIENTATIONS AND PATTERNING OF RESOURCES

Table 1 summarises the patterning of retrospectively illuminated events within the project. A weakness in this tabulation is a reductionist tendency that does not capture the dynamic complexity of experiences and ad hoc events that have shaped these trends. The table is, however, useful as it provides a simple overview of key interactions. It also reveals some of the emergent sensitising concepts and a sense of a continuity of change. This might otherwise have been lost within the complexity and apparent chaos of the stream of interactions within the ten year history of the project.

<sup>25</sup> See *Isiluln Solwazi Lwemvelo* by M S Gcumisa.

<sup>26</sup> The sense of an empowering capacity of an historical symbolic capital here resonates with the earlier experience of history in the water quality work.

**WIDER FRAMEWORK:** Modernism - Information and experiential interventions to facilitate / engineer changed values, attitudes and modes of behaviour (apartheid, technicism, scientism, structural functionalism, individualism).

**PROJECT FRAMEWORK:** Shaping dynamics - Community of trust and a trajectory of clarity seeking; interplaying contexts of involvement and detachment, hegemonic tensions within encounter, double-bind clarification and reflexive review.

Resource	Issues	shaping events	Reorientations, shifts and direction
Action Ecology (85-90) Revised 1993-94 & ongoing.	Ecology not ee Defining ee Ecology not there to be discovered Implementation weaknesses.	Think like a Martian Implementation weaknesses Historical structure of ecology Pep-Up	EE a sensitising construct to change approach and method. Best done 'grass-root.' Shift from nature/ecological awareness to an engagement with social, economic, political and associated biophysical degradation problems. Ecology has a historically emergent structure. Social induction to signify its visualising symbolism can be aided with simple questions and interactive encounter / dialogue experiences. The development of strong social relationships within the project.
Hands-on (89-92) ongoing	Different treatment (race) Outside intervention or interactive meaning making	Pilot tests and observations It's in the book and books by teachers. Encounter / dialogue/ reflection	Mediation within practical and cooperative development processes. A sense of group socio-symbolic meaning-making engagement in field with hands-on books. 'Grass-root' curriculum and resource development works and is good ee as a process of change.
Enviro-Facts (91-93) ongoing	Top-down or 'grass-root'	Letter rejecting top-down approach.	Sensitivity to historical and local co-defining of issues to avoid detachment of socio-symbolic processes from context. External symbolic capital to act in support of locally signified agenda of issues.
GREEN Kits (91-93) ongoing	Drought, water quality and health Teaching for change Correct testing and results dominate. Relevance	Coliform test Action experiences Institutional control Giving away the tools History makes things happen	An invention of scale that empowers local dialogue and problem solving. Action experience and simple scientific tests enabled visualisation, insight and action Historical symbolic capital drives meaningful investigation and action A sense of a political sociology of change and a socio-symbolic shaping of reality.
Envio-Pictures (92- ) ongoing	Pool of resources Reading the landscape and identifying problems	More talk and insight Systematic training Resource pool	Pictures mobilise symbolic capital for addressing issues. Ideologies seeing and approaching things very differently Web of linkages amongst resources and diverse approaches.
How-to (93- ) ongoing	Action and change? Technology	Cooperative project development	A historical symbolic capital of locally figured issues empower the capacity for cooperative engagement.
Indigenou s wisdom (93- ) ongoing	Lost heritage! Relevance	Snippets cover to cover	Historically shaped techno-scientific clusters Cooperative networking with regional success stories

**Environment and development education:**

Socially critical and reflexive processes enacted with historically rooted symbolic capital within the socio-ecological tensions of local and global uncertainty and an interplay of diverse contexts of involvement and detachment.

The Share-Net resource pool of 'tools for active learning in the environment' is underpinned by an emergent but open-ended and malleable logic of practice. This has been clarified within diverse social processes over a ten year period. These have produced sensitising concepts that illuminate environmental education as diverse social processes of change. This orientation appears to have been constructed within a blend of diverse shaping interactions that have been alluded to in the text. What follows is an attempted drawing together of many of the signified features of environmental education. Much of this is fairly obvious but the interesting point is that the emerging orientation to environment, science and technology education is counter intuitive. It departs from a prevailing modernist conventional wisdom of evolutionary change through clear messages and reshaping interventions to modify attitudes values and behaviour.

## THE EMERGENCE OF AN ENHANCED PICTURE

Historically, narrow modernist approaches to environmental education (eg Odendal, 1986; and Opie, 1990) have, in southern Africa, failed to accommodate a historical sense of context or socio-symbolic interaction. An emergent sense of history and the shaping influence of embedded socio-symbolic interactions have been enduring themes within the project. These are interwoven with each other from the Action Ecology project and the Hands-on books through to the recent how-to and indigenous-wisdom projects.

Another significant thread is the centrality of tensions associated with 'risk' or 'reflexive' processes of change. These are apparent in the early shift from top-down to cooperative orientations and in the co-defining of environmental issues within action research figurations. They are also to be found both within the sociogenesis of the project itself and in the design of teaching and learning transactions.

Elias provides a sense of how socio-historical processes enable us to construct the way we see the world. His symbol theory and the notion of 'reality congruence' also provides a means of conceptualising the socio-ecological emergence of risk. These risks also seem to set up diverse talk and action contexts (hegemonical fever) around complex 'double-bind' figurations in situations of socio-ecological risk and change. A simplified example of this is that if we do not reduce pesticide use we will lose bio-diversity but if we do, food production will drop and more people might go hungry. Beck (1992) provides other complementary examples of how processes of 'reflexive modernisation' have emerged to deal with the uncertainties of our 'Risk Society.'

Throughout the resource development activities there has been a consistent directional momentum of greater clarity within an emerging 'social process' perspective on environment and development education. This orientation is apparent within the discourse of the project itself and in a concern for situations of grounded symbolic interaction. There has also been an interwoven diversity of ad hoc events within this overall reflexive trajectory of change. Evidence of all of these interacting influences is revealed within the key shaping events discussed in the text and in the emerging pattern of cooperative resource development within the broadening network. These social processes have shaped emerging notions of the environment and environmental education.

## THE ENVIRONMENT

Figure 1 develops emergent notions of the environment within a graphic image. This has been successively constructed from an early engagement with the naive image of children 'rediscovering or awakening' a awareness through interaction in an outdoor classroom that presents as an objective reality within which to shape new values. The first shift away from this compelling illusion was a broader sense of interacting physical, socio-economic and political dimensions of the environment. This informed a successive clarification of the environment as a socially constructed reality. Later still, this orientation was complemented with an emerging sense of historically embedded multiple narratives interacting, over time,

within socio-ecological situations of risk and change.

The environmental education narratives which reshape the environment may include interactions within diverse contexts of uncertainty. These embedded socio-symbolic processes and the construction of a local agenda of issues are likely to involve critical reflection within a stream of local action to clarify and to reduce risk. These images of the social construction of the environment and of the relational dynamics of social change have shaped an emerging sense of environment and development education as diverse socially critical processes.

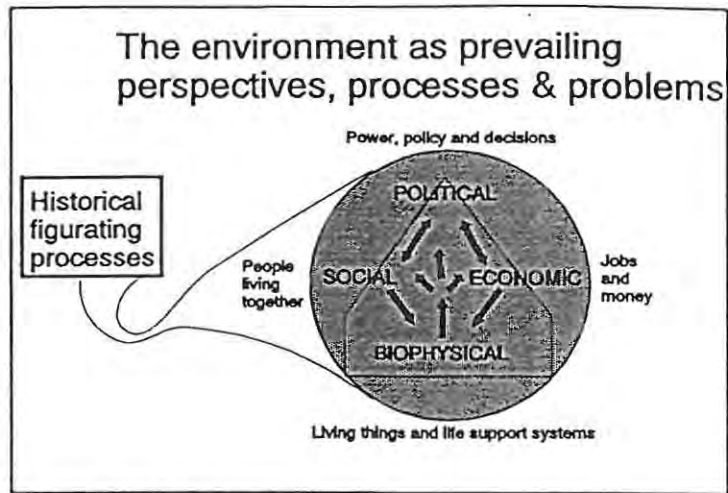


Figure 13 The environment

**ENVIRONMENTAL EDUCATION**

When these orientations are tentatively drawn together one is left with an image of environmental education (Fig 2) as diverse socially critical and reflexive processes. These might be enacted locally with a historically rooted symbolic capital<sup>27</sup> that enables people to grapple with the socio-ecological risks encountered during the active learning contexts of everyday life.

Once again, these is a sense in which this is a synthesis that resonates with the shaping themes and orientations that are interwoven within the project: The environment as a socially constructed reality that is historically and experientially rooted in the social context of symbolic interaction. Other key themes are the interplay of signifying and reflexive social interaction within teaching and learning processes that are undertaken within this symbolic capital. A compelling strength of this synthesis is the subtle interplay among history, emergent environmental issues and the context and processes of active learning in the environment. In the graphic these are represented by the layers (history, environmental issues and active learning) that are interlinked with each other.

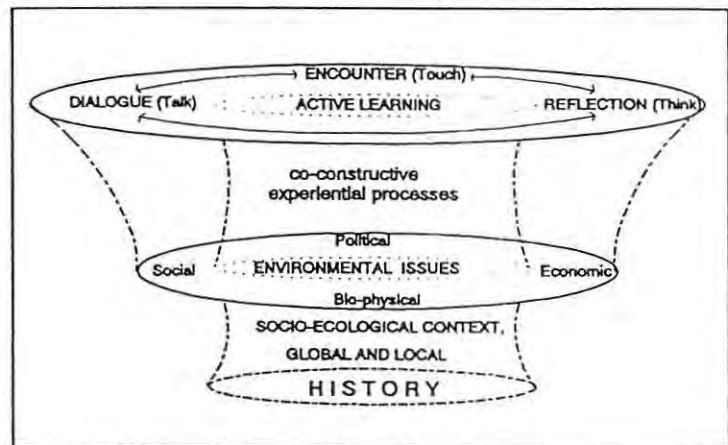


Figure 14 Environmental Education.

Process sociology (Elias) has provided orientations and sensitising concepts to unlock much of this. It illuminates the interplay of diverse hegemonic tensions and double-bind figurations within social process. It also shows how these emerged within a symbolic capital signified within an overall 'civilising' trajectory and diverse orientations of involvement and detachment. It may thus be a useful framework of tools for conceptualising environmental education as social processes of change.

<sup>27</sup> Elias figuration sociology

This broader notion of environment and development education as diverse socially critical and reflexive processes reveals a narrowness within many experiential and social intervention approaches to environmental education in southern Africa. This is true for both past apartheid orientations and some approaches to post-apartheid socio-economic liberation.

The early failure of the centre-to-periphery intervention within the action ecology project appears to have provided much of the impetus for the clarification of alternative orientations. This process of engaged change has been a feature of the social experiences and symbolic interactions that have shaped the Share-Net project, its resource materials and associated conceptions of environmental education. As these emerging resource materials and revised orientations are interacting within the broader context of southern Africa they are often in tension with prevailing conceptions of environmental education.

#### **NEW AWAKENINGS: Wider interaction**

The review paints a picture of an interwoven network of interactions that have shaped and reshaped the orientation of the project. This successively enabled the construction of a clarified perspective of environmental education as diverse social processes of change. There is a sense of an interweaving of these diverse influences within the events identified earlier, and in the widening intricacies of the relational dynamics of the project. Thinking about this, what came to mind is the trajectory of a balloon, compressed and shapeless at depth but reshaped by changing pressures on its ascent. Eventually it emerges on the surface as a reasonably coherent whole. In this new environment, things have changed and the emergent 'idea' is buffeted by new shaping influences in a wider world. There is a sense in which the fragile reshaping insights on the ascent of the project are being buffeted by the political economies of the prevailing notions of environmental education.

#### **NEW TRENDS AND TENSIONS: A sense of *deja-vu***

As the project has become more established, and the development of interacting regional resource structures is being undertaken (Taylor, 1994), the relational dynamics are changing. This is not a trivial matter of the resources being used more widely but a significant issue of changing relational dynamics.

In an effort to clarify this, it may be useful to view the earlier descriptions of shaping influences as the 'little picture,' developed against the early backdrop of the 'big picture' of change in the region. As the growing project has increasingly interacted in the broader political economy, the distinction between 'little and big pictures' disappears and the project is immersed in a changed picture of shifting relational dynamics.

Within the current political change in the region a key area of concern has been the restructuring of education. Participation in a national consultative initiative to develop a policy for environmental education (Clacherty, 1993) led to a cooperative project to develop a working document of sources and perspectives for environmental education (O'Donoghue, 1993a). This was compiled, within the Natal working group, in cooperation with representatives from curriculum projects, mass-based education organisations and formal education groups. Its draft circulation was met with a flurry of reactions and tensions, most very positive.

The Environmental Education Policy Initiative (EEPI), the Natal document and their shaping influence on environmental education have, in particular, unsettled the Council for the Environment<sup>28</sup>. The Council participated in the EEPI workshop, acknowledged the usefulness of the Natal working document and then

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<sup>28</sup> This is a national advisory group of specialists who are appointed by the government to advise the Minister of the Environment.

released a 'draft' core syllabus (Council for the Environment, 1993), defined in terms of prevailing interventionist (values change) approaches to environmental education. This had been prepared parallel to the EEPI process and was sent to all tertiary institutions in the country. The process, orientation and substance of the underpinning notions of environmental education within this document have been contested through the environmental education journal (Taylor et al., 1993).

This conflict situation resonates with many smaller-scale tensions and shaping processes within the Share-net project itself. In its early stages, the Action-Ecology project was seen as a classroom technique inappropriate for use in nature reserves, by field-centre staff wedded to free experience approaches. Tensions within the rising prominence of the project, its revealing that higher order notions of interdependence are not out in the environment to be discovered and the increasing fieldwork successes with the materials all appears to have been significant. Applying some of the tools of process sociology to understand these relational dynamics, it would appear that, within a cementing crucible of hegemonical fever<sup>29</sup>, the expanding network of participants struggled for clarity within a succession of 'double-bind' *figurations*. This seems to have been true for much of the clarification of conceptual tensions within the project. It is also apparent within socio-symbolic interactions where the emergent materials and orientations of the project were used more widely. Also of note is how many teachers are seeing environmental education as a compelling alternative to the oppression they experienced under the yoke of apartheid education.

Within the narrower relational dynamics of the project we all seem to have advanced to new insights that are resonating within a new reality congruence<sup>30</sup>. This insight cannot, however, simply be handed out to others be transferred to them within resource materials, activities and concepts that have been shaped within the project.

On a broader scale, the hegemonical fever that has bound environmental education is currently being torn apart by this dispute. The crucial issue is likely to be how, within the current socio-political shifts within the fabric of the country, might we be part of a process through which greater clarity emerges.

In conjunction with these issues that have been illuminated by process sociology, the study has also examined some of the more intangible features of the project itself and enduring features of environmental education field centres.

## OTHER CONCEPTUAL ISSUES THAT EMERGED DURING THE STUDY

To conclude the review an effort will be made to relate other trends within the project to social theory and, in particular, an image of the post-modern.

The latter is provided by Nel (1993) who alludes to the post-modern creating space and transformative potential within prevailing social figurations. Within the project, the importance of 'creative imaginings' are to be found in observable trends like:

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<sup>29</sup> a cementing passion of the environment crisis and environmental education shared amongst an expanding network of participants and particularly apparent in the Pep-up process.

<sup>30</sup> It would be naive to infer that these insights were either, widely shared or lasting at first, or even now. These have advanced and regressed but there has been both direction and a widening clarity (See footnote 8 for example).

the extensive use of rich metaphorical language and a playing with images<sup>31</sup> to describe learning events in the outdoors during the Pep-Up programme (Wright, 1988);

the obvious value of creative imaging activities for introducing city children to outdoor learning situations; and

the sense of fun, adventure and freedom to explore that which comes with 'frontier' features of 'nature experience' approaches to environmental education.<sup>32</sup>

These also embody a sense of an opening up of space for reorientating shifts similar to the notion of 'reflexive modernisation' that has been described by Beck, 1992<sup>33</sup>. This image of social learning processes recognises the benefits of:

*negotiation between different epistemologies and subcultural forms, amongst different discourses (p 5).*

These more tentative images of reshaping social processes might well be carried with us in our ongoing co-operative resource development activities. They might well enable us to clarify social processes which 'create space' for reflexive social change and thus to avoid the all too common notion that anything goes in the post-modern.

## CONCLUDING COMMENTS

The key events and observable details within the relational dynamics of the project provide an enduring sense of the interactive shaping of both resource materials and perspectives on environmental education. This did not happen through a rational and evolutionary progression as is often assumed within modernist notions of change. The realities were far more dynamic and human than that. The project was more like a shifting and somewhat ad hoc struggle within a trajectory of increasing clarity. In the project as a whole 'progress' was often an act of faith that clarity would emerge with time and through practical co-operative work. Throughout these activities a sustained engagement to optimise the creative energy of teachers and their pupils is the most poignant image of all.

These diverse realities allude to the need to review many current institutional responses to the demand for science and technology education. An important lesson in the case study is that ad hoc and seemingly insignificant events have had powerful shaping influences in the long term. The distance, scale and orientations<sup>34</sup> of many past responses to an increasingly demanding and threatened Modernity, have produced wave upon wave of seemingly ineffectual modernist social engineering interventions. These appear to have been inhibited by their grand scale, social distance and a lack of reflexivity. This may account for an all too common failure of much of their transformative potential.

An associated insight is that science and technology cannot simply be treated as isolated or even interdependent 'subjects' for development by curriculum projects. Education, socio-economic, and techno-

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<sup>31</sup> Baudrillard might be able to shed some light on this notion of playing with images to create space and clarity (Nel, 1993).

<sup>32</sup> Noel Mostert (1992) provides fleeting glimpses of these and other shaping influences in southern Africa in his epic work, 'Frontiers.'

<sup>33</sup> Despite questionable aspects of his notion of individualisation. See Nel, 1993.

<sup>34</sup> Narrow science or technology or environment orientations for example.

scientific issues are all interwoven within the symbolic fabric of the socially constructed environments we experience today. Elias illustrates that:

*.... what we call technology is itself only one of the symbols, one of the last<sup>35</sup> manifestations of that constant foresight imposed by the formation of longer and longer chains of action and the competition of those bound together by them (Elias, 1939 [1982], page 253).*

Within prevailing modernist orientations, this foresight appears to have been enacted through a projective linking of techniques of production (technology) as the 'objects and processes' for sustaining current forms of economic progress and community wellbeing. Given the complex socio-historical dimensions of the environment crisis this assumption is quite simply an error in orientation. It fails to account for a global environment where longer chains of interaction are under the increasing stress of competing interests and socio-ecological change.

Finally, the patterns of change within the project also support the suggestion that:

*It is at small functional centres that the foresight, more complex self-discipline, more stable super-ego formation enforced by growing interdependence, first becomes noticeable<sup>36</sup>. Elias, 1939 [1982], page 257.*

In looking back at the 'small functional centre' of the project and its widening framework of 'growing interdependence' the concluding question must be, who or what was actually shaped within the relational dynamics of the project? There is ample evidence that both resource materials and interdependent notions of environmental education took shape. Or, on the other hand, was it us and the expanding network of participants who were reshaped within the challenging trajectory of the project and concurrent social change in southern Africa? We can only conclude that the shaping of materials, ideas and people went hand in hand.

This formative review is enabling Share-Net to clarify itself as an informal structure for co-operation amongst small functional units situated within existing schools and environmental centres. In these changing times we are wary of falling into the trap of either compelling foreign science and technology imports or the more recent myth that the solution to the environment crisis lies in recapturing the wisdom of our lost indigenous roots. We have, however, entered into a pragmatic engagement with both of these orientations. Our hope that Share-Net will not simply be an education response to a demanding society but a network of demanding contexts of reconstructive struggle within a society immersed in the risks of global environmental change.

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<sup>35</sup> 'most recent' within the prevailing trajectory of 'civilising' processes.

<sup>36</sup> Here Elias is referring to the eighteenth century where with increasing economic interdependence amongst classes, there was a 'demand' to maintain these stratifications. In response to the demand to maintain rigid class differentiation there was a proliferation of civillite-books. These were not sustained against the trajectory of change.

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Rob