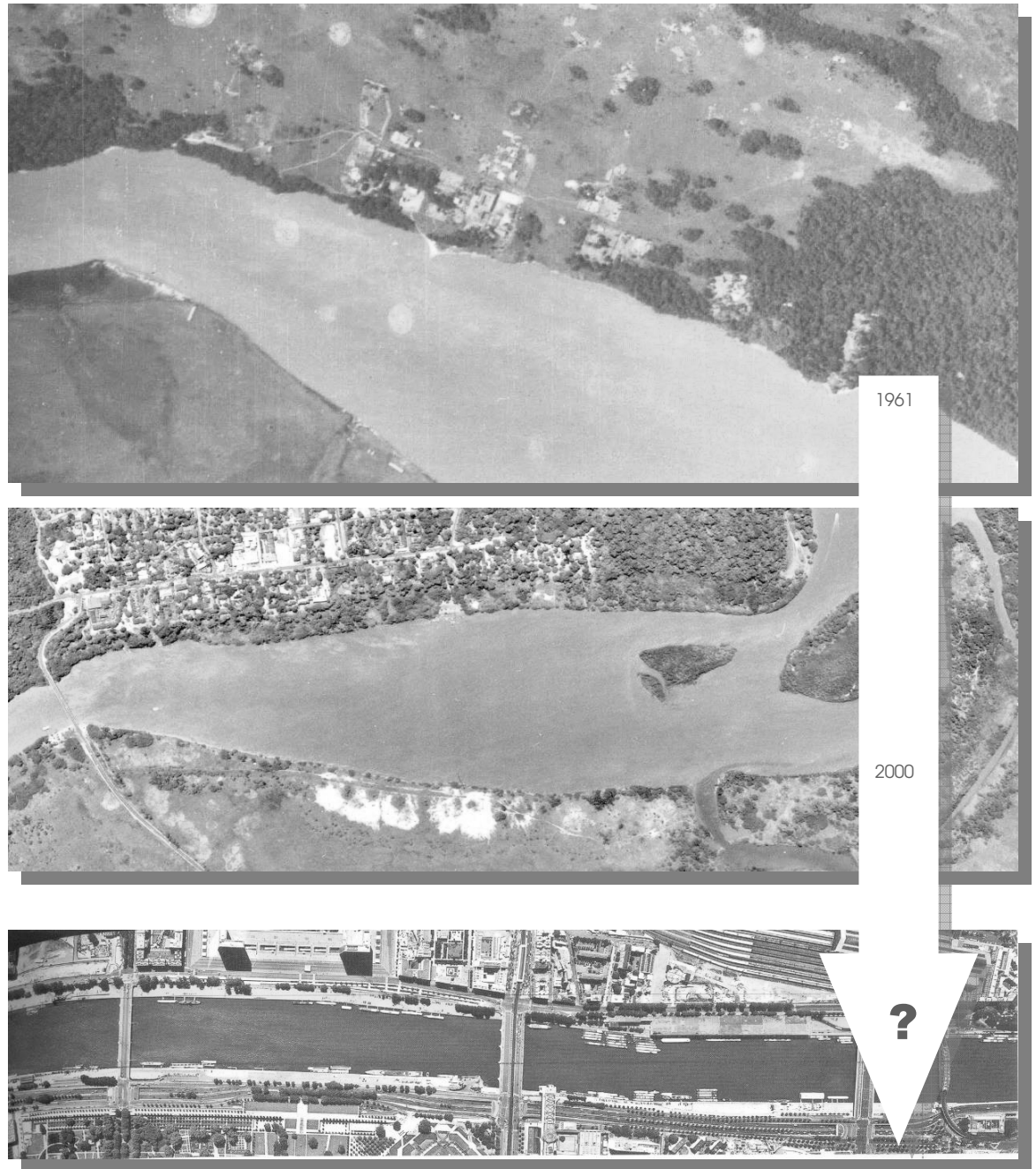


4 THEORY COMPONENT



13

Aerial photographs of St.Lucia documenting the urban development and asking the question of what future progress will bring about



14 Intact forested dunes at St.Lucia. They were threatened by mining as in Richards Bay



15 Dune mining activities at Richards Bay

4.1 ST.LUCIA: EXPLOIT, CONSERVE, REHABILITATE, DESIGN AND DEVELOP?

The debate around nature and development is especially relevant in St.Lucia considering its history of stopping dune mining and it being declared a world heritage site.

This theoretical component of this thesis asks the question of how much development equals exploitation. To answer this question this thesis takes into consideration South Africa's history of racial and economic discrimination, which led to the current hardships and poverty amidst the bounty of nature.

After the communities surrounding the St. Lucia site came together in the late 1980s and early 1990s in a remarkable movement to stave off the development of mining that

would have damaged the fragile ecosystems, the South African government made an unprecedented step to turn over the management of the park to a coalition of local people, companies, NGOs and government representatives – named the Greater St.Lucia Wetland Park Authority. It is the first time in the history of South African conservation that local people who suffered the disadvantages of apartheid are fully represented in the highest decision-making body of a major conservation area.

The park is now run with a new philosophy about the relationship between conservation and development: one cannot succeed without the other and sustainable tourism underpins both. (Media Information Pack, 2006: 1).

According to instrumental value theories only humans have intrinsic value (i.e. value in and of itself) while everything else only has value in so far as it serves human interests. This human-centered approach at best can lead to the protection of natural areas for consumptive use, while non-consumptive activities aimed at enjoying the recreational, aesthetic, or spiritual value of nature are allowed. At worst, it can lead to the position of those who see nature as nothing but a resource that should be maximally developed for human consumption. (Hattingh, 2000: 80)

Somewhere in between is the position of those who would rather like to see ecologically optimal development with a view to ensure that future generations can also satisfy their needs. Intrinsic value theories emphasize that human use-value could not be the only consideration in environmental decision-making. Some entities in nature, or nature as a

whole, or life in general should rather be respected for the value that it has in its own right, regardless of any use that humans can make of it (Hattingh, 2000: 80). Hattingh's argument is trying to prove that Intrinsic value is less human centered. His argument is ambiguous. De-emphasizing human use-value, but then states that life should be valued in its own right. Value is a relative concept generated and decided on by humans.

The many variations of radical value theories focus on the root causes of our environmental problems, and make proposals to overcome these causes through a radical transformation of our behavior, mindsets, notions of self and self-realization, social structures, institutions or decision making procedures. (Hattingh, 2000: 80) Deep ecology is an example of radical value theories and is explained in detail in *The Web of Life* (Capra, 1996: 3-17). In an article in *Rapport*, Prof. Johan Kemp states that humans are naive to think that we have an impact on earth and life - we are staring at short term changes. He states that the human species will become extinct and that the earth will continue to live peacefully (Kemp, 2005: 1).

Combinations of theories are being implemented in St.Lucia, a 'develop to conserve' approach. With new economical pressures one can just wonder how much development is going to be allowed and how much development equals exploitation. Also how do you decide what and where to conserve and what not?

Gardner states the following: "One controversial component of the Program (referring to the Lubombo Spatial Development Initiative) is the allocation of concessions in National Parks to private operators to build and operate tourism facilities on a long-term basis. According to the 2001 Government Yearbook; this is quite a radical departure from past policies where SANParks has traditionally both provided

and managed the accommodation. In terms of the concession contracts, the rights over a defined area of land are granted exclusively to the concessionaire until the termination or expiry of the 20-year contract. In return for this privilege, SANParks is guaranteed a total minimum income from the profits generated by each of the concessions for the 20-year period. At the higher end of the tariff scale, most of these concessions will only be accessible to international tourists and very wealthy South Africans.

The first concessions were awarded in the Kruger National Park in 2002. As a consequence, just less than 5% of the Park has already been allocated to private interests for exclusive use. An extra 570 kilometers of roads have been added to the Park to support these concessions, substantially enlarging the human footprint on the ecology. Concessions have also been awarded in many other National Parks and more are probably on the cards. Provincial authorities are now also following suit. According to the Wildlife and Environment Society of South Africa (WESSA) the Greater St Lucia Wetland Park Authority, in association with Ezemvelo KZN Wildlife, intends to squeeze 7200 permanent beds into concessions in the Greater St.Lucia Wetland Park. Many of these beds are in development nodes that are in ecologically sensitive areas. Seven thousand two hundred beds is a lot, considering St Lucia is only one tenth the size of the Kruger National Park, which has 4 200 permanent beds." (Gardner, 2000: 144)

Points 4.2 – 4.7 examine our changing position towards the environment and describe the current paradigm, which will dictate the boundaries of development and exploitation, as being anthropocentric and socio-economical of nature.

4.2 CHANGING PARADIGM

There has been a long tradition of environmentalist architecture, but currently it is very much to the fore in the thinking of many architects.

The destruction of nature has brought about a general feeling of anguish, which has made ecology a priority in the present-day world: environmental and social ecology, respect for and protection of our surroundings, development of things that will last, prevention rather than cure: these are problems that must be solved today by what is variously known as green, bio-climatic or ecological architecture. For the most part, these terms cover innovative technologies, recycled or adapted materials, and cheap methods of construction to suit the needs of the time.

"But this sort of progress does not clarify for us which nature we are to defend and how we are to defend it. What concept of nature do we actually have today? And what responsibilities can the architect imagine himself facing up to in a society that is evolving so fast?" (Brayer & Simonot, 2003: 10)

Several definitions for the word nature exist today, all with varied meaning. To create further confusion there are even more varied definitions for the words "environment" and "landscape" circulate academic literature.

The words "environment", "nature" and "landscape" are all used freely and with varied meanings by differently authors. This is mainly because of our changing understanding of nature and our relationship towards nature over the course of human history.

The changing paradigms, relevant etymology and interpretations (usage) of the above mentioned terms are discussed and documented by Makhzoumi (Makhzoumi & Pungetti, 1999: 1-14) and Capra (Capra, 1996: 17-50).

Because this is not the focus of this essay only a current and general definition of environment/nature will be given: According to Prof. Johan Hattingh, head of the unit for

Environmental Ethics, University of Stellenbosch, Environmental ethics is a sub-division of professional and applied ethics that concerns itself with the responsibilities that we as humans have in our interactions with the environment. Opinions differ as to how widely or narrowly the term "environment" should be interpreted, but a working consensus seems to have emerged around the notion of "objective encompassing nature", or "the biosphere".

From this broad perspective, the environment not only refers to living nature such as animals and plants, insects and microbes, but also the non-organic basis for life in general as well as the ecosystemic interactions between all of the above. (Hattingh, 2000: 80)

Many interpret the environment even wider, because humans are part of nature they imply that the systems humans create are also "natural", to include the built surroundings within which humans live, so that ethical concern for the environment is seen also to include consideration of the aesthetic, cultural historical and spiritual values that humans may attach to certain aspects of non-human nature. "...inclusive term that embraces wilderness, suburbia and city..." (Motloch, 2001: 3)



16 Green clay changing and molding as does our dominant paradigm and relationship towards the environment

There are many opposing and contradicting anthropocentric views on defining the environment– depending whether you look at the issue from a scientific, economic, social, political or moral perspective, all of which are legitimate.

Environmental ethics thus have to do with the duty of care that we have for the environment in an all-encompassing sense: the earth as a whole, or the whole of the community of life, including the ecosystemic and other processes (for instance the water cycle, the carbon cycle, the nitrogen cycle) that sustain this community of life. (Hattingh, 2000: 80)

The drastic mutations that have punctuated this short period in our history, a permanently changing environment, an ever increasing subservience to market forces - all of these underpin the general feeling that traditional attitudes and practices have become irrelevant, and now it is necessary to have a radical rethink if we are to meet the challenges of the modern world. (Brayer & Simonot, 2003: 10)

Within the circle of environmental ethics a wide range of different positions are taken up on the question of the nature and extent of our duty of care towards the community of life. Views also differ strongly on the reasons we have such a duty, for the sake of whom or what we should care about the environment, what exactly the objects of our concern should be, and how we should discharge our responsibilities. While some skeptics even go further and question whether we should morally care about the environment at all. (Hattingh, 2000: 80)

The answer to 'what develop and what conserve' thus lies within the dominate paradigm of the current time. To formulate the current paradigm we need to state both sides of the debate: Pro-conservation and Anti-conservation. Refer to points 4.3 and 4.4 respectively.



17 Preservation and Conservation: an abstract human concept (Casabella, Milan, no.411, March 1976)

4.3 PRO - CONSERVATION AND CRITICISM THEREOF

"The environmental crises of our day, ranging from the denuding of tropical forests, acid rain, air and water pollution, diminishing wilderness areas, the introduction of alien vegetation and green house warming, all have one thing in common - the human factor. A sobering thought. It is difficult to counter the argument that human beings are the most dominant and, as seen through human eyes, the most successful species on earth. Indeed, there is hardly a place on the face of our planet that we have not explored, settled, and altered in some way to satisfy our own ends and as the writer and scientist, E. O. Wilson puts it, 'we have become a geographical force more destructive than storms and droughts.' It is a fact that death and extinction is on the cards for all of the earth's species, but prior to the emergence of the human animal, nowhere in the evolutionary narrative does it show any one species having driven any other into extinction." (McMallum, 2000: 55)

"The Sixth Extinction of life is now- it is of our time. It began around 140 000 years ago and has been increasing in magnitude, exponentially, ever since. And we, every one of us - through our ignorance, our divisions, our political, philosophical and economic systems, our science and industry, our inventive genius and our exploding population - are its cause" (Anderson, 2000: 23).

"The exponentially increasing Sixth Extinction can be shown pretty convincingly to parallel humankind's headlong expansion in numbers from literally one of a kind some 140 000 years back to over six billion individuals today. And this population explosion can be inseparably tied to three successive, seminal communication revolutions: language, writing and printing. It is ironic that it is our sheer genius that is propelling us towards our pending demise." (Anderson, 2000: 23)



18 Humans fear nature but also fear its destruction

Lovelock argues against this. As seen in the above paragraphs, humans are being compared to a planetary disease. Lovelock uses the analogue of vaccination. The human infection could in the long run prepare our planet and make it stronger against more lethal "viruses" to come. This implies that the symptoms our planet is showing are only short term negative responses and nothing to be too concerned about. (Lovelock, 2000: 153)

According to Ashton, "Human intervention in the planetary balance is accelerating the tempo of extinction. We are unraveling the very fabric of our support system, by causing the extinction of thousands of species. Humanity faces two choices; either to indirectly cause our own extinction by the destruction of our support system, or to recognize our role in a Gaian system and reverse the impacts that we have on them. A more widespread acceptance of the Gaia Hypothesis will improve the prospects for the collective health of life on this planet". (Ashton, 2000: 100)

Ricky Taylor, ecologist for Ezemvelo KZN Wildlife, tries to answer the question in his publication, *The Greater St. Lucia Wetland Park*, in an article entitled, 'Why conserve St. Lucia':

"...In response to this question it should be realized that conservation is being carried out for the long-term benefit of the human society as a whole. The Natal Parks Board has the mandate to look after St Lucia with responsible care as this park is recognized as being an asset of national and international value. The need for conserving St Lucia has been recognized by successive governments over the past century, from the British Colonial Government to the present-day one. As the conservation assets of the country have dwindled, so the need has been recognized to add extra portions onto the total St Lucia area. The values of St Lucia to society can best be assessed within the context of the total natural environment. The International Union for Conservation of Nature and Natural Resources in its World Conservation Strategy has stressed the need to maintain what it terms "Life support systems". These are the habitats essential for human survival. They include the forests, the estuaries, the seas, and the wetlands. For each of these, critical minimum amounts are needed to purify the air we breathe, to provide clean water, and to ensure that we have fish to catch. To ensure a high quality of life it is necessary for development to go hand in hand with nature conservation. There is a need for industrial areas as well as wilderness, and for the whole range between these extremes. The St Lucia Wetland Park, well known for its natural beauty and ecological value, has been well chosen to be retained as a natural area to be left to function with minimal interference from man.

The economic benefits in conserving St Lucia spread like tendrils through the infrastructure of our society. There is a direct economy based on the use of the area by tourists and anglers, as well as the attraction of overseas tourism to this country, which increases foreign exchange.

every year, will turn this country into a sterile and unproductive wasteland unless people are taught to respect and look after their natural environment. St Lucia is a valuable area for environmental education - it is an outdoor classroom that can be used for formal and informal education, for young and old alike." (Taylor, 1991: 40)

None of the pro-conservation strategies that have been studied for this discourse preach "conservation at all cost". Capra groups all these paradigms under "Shallow ecology". These paradigms are anthropocentric or human-centered (Capra, 1997: 7).

In the words of James Lovelock: "...Environmentalists, churches, politicians, and science, all are concerned about the damage to the environment. But their concern is for the good of humankind. So deep is the introspection that even now, few apart from eccentrics really care about other living organisms..." (Lovelock, 2000: 15).

All the pro-conservation groups are trying to ensure/guarantee human existence. They conserve out of fear that if they do not, current human activities are going to destroy biodiversity and with it the human species. They conserve to preserve nature for the enjoyment of their future generations. Or they conserve because it has an economical advantage for them.

Whatever the human-centered reason for conservation is, it becomes apparent that conservation is a selective and random activity.

When we look at our process of deciding on which species we are to conserve and the ones we are going to leave up to fate, it becomes apparent how ridiculous it is. Currently we conserve species with dwindling populations. We conserve what we see and know about. Think of the BIG five.

"...but the fact is that that there is only one other extremely pertinent quality about life on Earth: it goes extinct. Quite regularly. For all the trouble they take to assemble and preserve themselves, species crumple and die remarkably routinely. And the more complex they get, the more quickly they appear to go extinct. Which is perhaps one reason why so much of life isn't terribly ambitious?" (Bryson, 2003: 298).



20 Conservation is a selective and random activity

Species maintaining global life are quite different from the Big Five. "The ocean algal ecosystem in the northern and southern arctic and temperate oceans is active chemically in pumping down carbon dioxide from the air...a significant climatic role is attributable to this... affects both carbon dioxide and clouds in the atmosphere..." (Lovelock, 2000: 50)

We almost randomly select species and areas to conserve. The environment is ever changing. We see the environment in terms of human time- in the case of St. Lucia, what now is forest was grassland only 100 years back. We are quick to protect and conserve our trees, but the trees are "unnatural", they are only there because humans have stopped the burning of the grasslands. These ideas and criticism of so called green and pro-conservation movements have led to a resent new paradigm- that of ecological skepticism.



19 Money is very green

There are also the indirect and difficult to quantify ecological benefits such as the improvement of fish prawn and crab catches up and down our coastline. The spiritual values, too cannot be quantified. Watching a sunrise from Charter's Creek - where the Eastern Shores dunes, silhouetted against a blazing sky, are reflected in the lake; hearing the territorial calling of fish eagles, the pounding of the waves on the Mission Rocks at high tide, the adrenal in-releasing snort of a black rhino in the wilderness area. These are all part of our heritage; part of a rapidly disappearing Africa which needs to be preserved for future~ generations. St Lucia is an area where visitors can learn to live in harmony with the natural environment. The population of South Africa, growing at 2.6%

