

SUBMITTED IN FULFILMENT OF PART OF THE REQUIREMENT FOR THE  
DEGREE OF MAGISTER PROFESSIONAL IN ARCHITECTURE IN THE FACULTY OF  
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## Hartbeespoortdam Butterfly Conservancy

*The thesis discourse sets out to challenge what has become an important issue - the relationship and connectedness between Homo sapiens and "nature".*

The thesis focuses on different habitable spaces which have been designed to promote the existence of a number of South African butterfly species. The architecture responds to the context as well as to one of the largest insect groups, the order  
L e p i d o p t e r a .

Following a sustainable approach, more ecological knowledge is at the core of the design. Instead of human functional needs driving the design, site components respond to the indigenous spatial character, climate, topography, soils, and vegetation as well as compatibility with the existing cultural context.

Submitted by **RYAN PATRICK PETTEY**

Mentor and study leader **PROF ROGER FISHER**

BUTTERFLY CONSERVANCY - HARTBEESSPOORTDAM.



Although there has been little time for play during the past 5 years I have made some fantastic friends.

I would like to thank all the collaborators in the class of 2004 with whom I shared some awesome times. (Boertjie)gERHARD\_mADER\_jEAN\_hAROLD[remember the fine times we had sitting outside the student centre admiring the wonderful designs that adorn the university grounds];

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In memory of my Grandfather[tED] who is still an inspiration to me. tHANK YOU

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Figure 001: Parides iphidamas by Ryan Pettey

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## Preface

### **A world for Butterflies**

Eighteen years ago when I was five years old I met and made friends with the boy who lived across the road from my home. He is now studying industrial design in Cape Town. With guidance from my mom we would catch and set butterflies. In December 2002 he once again started catching and setting these magnificent creatures. During the four holidays proceeding this time he managed to catch forty different species in and around his mother's garden at Hartbeespoort dam.

Butterflies never seemed a likely thesis topic until I realised the research and environmental opportunities that this field embraces. One of the most important concerns when choosing a thesis topic was to ensure that it enriched my future career. This topic is of great interest to me and encompasses a huge environmental component. Areas of interest which form part of the focus are; sustainability- the autonomous design, environmental conservation, community upliftment and social stimulation.

Overseas, these developments thrive and form part of educational networks. Cape Town and Pietermaritzburg have their own butterfly worlds, although on a much smaller scale than their overseas counterparts.

The proposed site is in the Hartbeespoort dam area. This dynamic area is accessible and is already an important tourist destination. I imagine that a development of this nature could become world-renowned.

-an elegant contextual structure housing the most elegant of species-



Ryan Patrick Pettey  
South Africa  
2004

