EXPERIENCING AN AERIAL LANDSCAPE
Hang Gliding Park on a Cliff

by

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Bachelor of Arts
University of California, Berkeley, California, 1990

submitted to the Department of Architecture in partial fulfillment of the requirements for the degree of Master of Architecture at the Massachusetts Institute of Technology, February 1998

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ABSTRACT

This thesis is an exploration of architectural space as a contrasting and changing experience from the ground and from the air. It focuses on how architectural interventions may offer spatial experiences which may be instrumental in gaining a particular understanding of a place.

The thesis design is an attempt to nurture the notions of my particular impression of the chosen site. The transformation of the natural landscape focuses on the procession as the body moves through space. It investigates a way architectural interventions may be choreographed, from the beginning, to disorient the visitors and to deprive them of the experiences of the site as a way to sharpen the senses and increase physical awareness of the body and the surroundings, while gradually reintroducing elements of these experiences to them in order to construct a particular understanding of the place.

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FOREWORD

With this book I intend to document the process taken place during my thesis exploration for the Department of Architecture at Massachusetts Institute of Technology. As a relatively young person who is constructing one’s own design process in the discipline of architecture, I feel that it is important for me, at the moment, to trace back the thoughts, the explorations, the problems and the decisions which took place during the process. It is my wish that from this documentation I will gain a perspective which may inform the development of my design process in the future.
DEFINING “ARCHITECTURAL THESIS”

I began my thesis by asking the question, “what is an architectural thesis?” After several discussions, it became clear to me that the use of the term “thesis” should be questioned. Should a thesis in the field of architecture be a proposition that is maintained by argument, or an original point of view as a result of research, or a hypothetical proposition the way “thesis” is understood by other disciplines? This is a question I cannot yet answer. However, I do prefer to see my architectural thesis as an opportunity for personal exploration; a search for one’s own aspirations. It was decided that whatever was to be done for my thesis, it should reflect my personal interests, views and attitudes. It is perhaps the beginning of a long-term exploration that is to be continued.

DEFINING THE EXTENT OF THESIS EXPLORATION

During the search for a thesis topic one observation was made as various interesting topics were preliminarily explored. In real practice architectural issues are almost always interrelated to others such as social, economical, political, psychological issues. It was understood that the extent I explore beyond the realm of architecture affects adversely the depth with which architectural issues will be explored. For this Master of Architecture thesis and for my own interest, I decided that it was important for me to recognize and accept the limitation of architecture, and work with what architecture can do within the realm of architecture as much as possible.
SEARCHING FOR A THESIS TOPIC

The search for a thesis topic was an interesting and unique process itself. It was inevitable that I found myself interested in a wide variety of topics. However, after going through several potential topics I was still unable to find one which was appealing enough to somehow satisfy me personally. I was advised to think about places and events which touched me personally; where I am from, my background, who I am, etc. I was to search for my own personal aspiration, and not to think about programatic problems at that point. It was believed that design will come with aspiration, then comes the opportunity for inhabitation.

I started to touch grounds I had avoided perhaps because they were more personal than what I was used to. I thought about the things I grew up with, and places and landscapes which I identify with. I initially decided to explore my fascination with flying due to my family background, and the California coastal landscape which I have identified with since I moved there fifteen years ago.

It was not easy for me to bring the idea of flying into architecture. I was led to think about architecture in many different ways; flying as a metaphor in architecture, spiritually uplifting architectural spaces, architecture inspired by the aviation technology, the aerial view and a way of looking and understanding the world, a way of seeing order on the ground that is only possible in the air, fractal geometry, the condition of detachment associated with flying or distancing, meditative quality of flying, the changing experience of space from the ground to the sky, aerial perception, highrise buildings, etc. I was again lost in the topics.

The combination of flying and California coastal landscape eventually led me to recall a visit I made to a hang gliding park in La Jolla, San Diego, in the summer of 1990. The visit was unplanned and short, however, it did make a strong impression on me because of its overwhelming beauty, which, at the time, I did not bother to understand. I decided that this hang gliding park could be where I start my thesis exploration.

I was unable to come up with a proposition at that time. It was decided that a proposition will be formed during the design process as I further explore the initial topic. It was believed that it did not matter where I started the exploration. Since the chosen site presented itself as the only concrete source of inspiration at the time, I decided that that would be where I start.
Fig. 10.1-4, 11.1
flight sequence showing
different stages of hang
gliding
INTRODUCTION

Free flight, or flight which depends on the forces of the air without mechanical power as in the case of hang gliding and paragliding, may be seen as a way of fusing the body with the natural forces. It is an activity during which one is brought to a keen awareness of one’s own body as well as the physical surrounding.

It was the fascination with free flight that initially brought me to the chosen site for this thesis exploration. Torrey Pines Hang Gliding Park is a park on top of a cliff along the Pacific coast in La Jolla, San Diego, California. Being about 300 feet above the beach below, the site has both the qualities of being on the ground and in the air.
Fig. 12.1 - 13.2
images showing the existing approach from the beginning of the road with a gentle upward slope to the parking lot before the plateau.
SITE IMPRESSIONS

Upon my visit to the site, I was most taken by the experience of the approach to the cliff edge. At the beginning, the focus was the sky against the plateau with no indication of the ocean nearby. Then, as I walked slowly toward the top of the plateau, the sky was gently pulled down as the land gradually retrieved. Then, at one point, the sky stopped and the ocean slowly revealed itself in front of me, first as a thin curvy blue line, and as I continued toward the edge of the cliff, as a vast blue surface expanding from the horizon to almost below me. Finally, I was able to see the beach below displaced by the magnitude of the cliff. It was at that moment I felt that I understood the place.
Fig. 14.1 - 15.2
images showing the existing approach from the parking lot toward the top of the plateau.
Fig. 16.1 - 3 images showing the existing approach reaching the top of the plateau.
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horizontal impression of the site looking east.

Fig. 25.2
horizontal impression of the site looking west.
Fig. 26.1 vertical impression of the site looking down from the top of the cliff.

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RELEVANT STUDIES

Fig. 29.1 - 2
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aerial images of the site.
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Fig. 34.1 - 3 images illustrating the project Passages by Dani Karavan in Port Bou, Spain. The project intervenes with the existing landscape in a powerful way and offers a processional experience with different foci at different points of the procession, introducing a particular understanding of the site.
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images of a sand study model which explores a processional experience from an open landscape toward the water with a tunnel-like compressed space which gives increasing focus on the water as one proceeds.
site model under different lighting conditions simulating the way the sunlight gives form to the features of the site at different times of the day; in the morning, at noon and at sunset respectively.
Fig. 41.1
an early sketch showing the idea of an intervention clinging to the edge of the cliff.
Fig. 42.1 - 2, 43.1 - 2
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Fig. 43.1

Fig. 43.2

- Measurement of wind may be transferred through wind rings mounted outside of the wind.
- The effect of wind on the object can be observed.
Fig. 4.4.1 - 2, 45.1 - 4

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Fig. 55.1
site plan study of a procession with various foci in plan and connects various architectural events such as a tunnel, a parking lot, a point of arrival, an observation deck, etc.

diagramatic perspective sketches at upper right were created to build a set of spatial vocabulary which may help me in choreographing a changing spatial experience

here the paths of movement are mainly seen, as a whole, a linear experience which connects points, and not places themselves. also, there is a lack of organization.
Fig. 56.1 - 2 sketches showing development of the tunnel leading visitors from the existing road to the parking lot.

Fig. 56.2
Fig. 57.1 - 4
perspective sketches showing vehicular procession through the tunnel with gradual changing foci on the landscape at different points
section sketch studies the idea of forming the underground space as a way to create and control focal points at different points of the procession.

until now the project was seen as one which extends from the beginning of the road to the bottom of the cliff. i began to see it as two projects, one dealing with the horizontal procession to the edge of the cliff and another dealing with change of height from the edge of the cliff to the beach. eventually i chose to develop the horizontal procession mainly because of the wide range of spatial experience the landscape offers.
Fig. 59.1
site plan study in an attempt to organize the architectural events connected by a procession.

Fig. 59.2
sketch study for a place which gives a sense of arrival at the top of the plateau.

hence the interventions are seen as elements which mediates between a sense of control one gets in an urban setting and a sense of freedom one gets in an open landscape.
Fig. 60.1 - 2
views of an early model
Fig. 61.1
aerial view of an early model showing vehicular procession with a tunnel taking the visitors from the existing road to a depressed parking lot, then leading them to a pedestrian procession connecting a hang glider storage room, a club house on top of the plateau, and finally an observation deck at the edge of the cliff.

the interventions in the procession introduce gradual changing architectural experiences from sense of control to sense of freedom through different forms such as underground and open, and also different uses of materials such as concrete, steel, glass and fabric.
Fig. 62.1 - 3
sketches showing the
development of the section for
the intervention near the edge
of the cliff.
sketches showing the development of the plan for the intervention near the edge of the cliff.
Fig. 64.1
development of section.

Fig. 64.2-3
light studies of the section using a section model.
development of site plan showing a linear procession with the path of movement having the opportunity of becoming a place for inhabitation.
Fig. 66.1

development of section which starts to explore the idea of inhabiting both the cave like space and also the wing-like structures above.
development of site plan showing the parking lot leading to a point of arrival where a set of choices is offered with paths that are to disorient the visitors before they gain a view of the ocean.
Fig. 68.1

Further development of section.
Fig. 69.1

Further development of the site plan.

Here an attempt is made to work out the transition between the vehicular and the pedestrian processions, wrapping one around another, making a fluid transition between the movements and the materials.

The oval open space at the midpoint of the pedestrian path indicates a place of arrival. This was eventually moved to the upper end of the path at the top of the plateau.
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aerial photo collage showing transformation of the existing landscape.
views of an early model showing the procession before reaching the wing-like tunnel structure.
aerial view of an early model showing the relationship between the various parts of the intervention.
views of an early model showing views along the procession from the point of arrival to before reach the edge of the cliff.
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Fig. 79.1
section showing the final development of the procession from the beginning of the road to the parking lot.
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Fig. 86.1-3
views of model assembly showing the interventions.
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perspective rendering showing view of parking lot embraced by various layers of horizon. A winding path leading upwards disorients the visitors while taking them toward gradual more open landscape.
Fig. 91.1
perspective rendering showing procession toward the top of the plateau with receding walls on two sides.
sectional perspective photo collages showing final approach toward the edge of the cliff.
Fig. 98.1 - 4
The face of the cliff at increasing scales showing similar order which exists in different sizes.
REFLECTIONS

During my thesis exploration I learned of the challenge which comes with dealing with the open landscape which has a very wide range of scale that is unfamiliar to most architects. The challenge is to recognize the sizes that do exist in the open landscape. The range of scale is wider than what we normally find in an urban setting and may be more readily comprehended with the juxtaposition of different views such as view from the ground and the aerial view. During my design exploration I failed to achieve this but I suspect that these different sizes that may be found in the open landscape may inform the design in a positive way.

Fig. 99.1
Aerial photo collage showing the design and the Salk institute at the same scale. The failure on my part to recognize the size issue is apparent when one uses the Salk Institute as a scalar reference.
Fig. 100.1 - 2
views of Richard Serra's Torqued Ellipses installed at Dia Center for the Arts in New York
Near the end of the semester a valuable visit was made to Dia Center for the Arts in New York where I was able to experience Richard Serra's Torqued Ellipses. I was amazed at the way spatial experiences was able to lead to the movement of the body. The experience led me to think in a way that added a new dimension to my thesis exploration. It led me to think about ways of relating movement to materials and space, and the body’s movement predicated on physical awareness in relation to space, place, time, and movement; the idea of the body moving through space,
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all images by the author unless otherwise noted

| Fig. 32.1, 52.1 | *La Jolla*, California,  
aerial photographed by Aerial Fotobank Inc, San Diego |
| Fig. 34.1 - 3 | *Passages* in Port Bou, Spain designed by Dani Karavan  
| Fig. 35.1 - 2 | Roden Crater Project by James Turrell  
printed in James Turrell: Sensing Space, pages 54 |
| Fig. 35.3 | Roden Crater Project by James Turrell  
printed in Occluded Front, James Turrell, page 105 |
| Fig. 52.1 | *La Jolla*, California  
| Fig. 100.1 - 2 | *Torqued Ellipses* designed by Richard Serra, installed at Dia Center for the Arts  
photographs by Ivory Serra, printed in Torqued Ellipses, Richard Serra |