

HOLLOW GROUND

By  
Hayley Isaacs

A thesis  
presented to the University of Waterloo  
in fulfillment of the  
thesis requirement for the degree of  
Master of Architecture  
in  
Architecture

Waterloo, Ontario, Canada, 2007  
© Hayley Isaacs 2007



AUTHOR'S DECLARATION FOR ELECTRONIC SUBMISSION OF A  
THESIS

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.





## ABSTRACT

Friedrich Nietzsche classified all precepts which were imposed upon us by human intervention as idols; his aim was to instigate “a reevaluation of all values”, through the irrefutable sounding out of these idols. Armed with a tuning fork, his intention was to strike them so as to illicit a hollow reverberation. With a mischievous contentment he declared, “. . . that which would like to stay silent has to become audible.”<sup>1</sup>

Our faith in technology, consumption and our economic system, like our faith in the gods of the past, has facilitated and encouraged our adoption of destructive behaviours which position cultural ideals at war with nature. In the pursuit of profit and growth disguised as a commitment to progress, we have built a manufactured landscape which denies its connection or responsibility to our natural environment. Since the consequences of our disregard for nature have become undeniable, it is now necessary to reassess the hollow foundations of our cultural practices.

The thesis imagines a narrative series of four underground rooms constructed to house four video installations. Each piece attempts to provoke an internal revolution, a reinstatement of our mental faculties through a shifting of perception both within the work and through paralleling the conditions of its installation with our own elaborately manufactured reality. The four galleries juxtapose the generative video pieces with corresponding case studies and stories that echo the themes of each piece. Through the study of unique practices in Slavjansk, Ukraine, the history of the North American lawn, current construction efforts in Dubai, UAE and Walt Disney World, USA, recent developments in China, and the past civilizations of Easter Island and the Greenland Norse, the thesis attempts to expose, through irony and juxtaposition, the absurd tragedy of our delusions.



## ACKNOWLEDGEMENTS

I would like to thank my supervisor Dereck Revington, whose M1 program was the catalyst to the following work. Your passion is contagious and your support invaluable.

Thank you to my advisory committee, Philip Beesley and Ryszard Sliwka, whose advice and enthusiasm was always welcome motivation. To Sascha Hastings for your time and eager participation in this process.

To my team of editors: Ilana Cohen, and Andrew Haydon. To the models and actors who contributed many hours catering to the whim of my camera: BJ Smith, Julie Brown, Jaime Usas, Iris Strickler, Alex Juzkiw, Lubos Trcka, Matt Muller, Susan Tang, and Jenia Faibusovitch. To my technical support, Bob McNair, and Dad.

To my family and friends, your unconditional love and support over the past years has made this all possible.

Finally, to Hai, your patience and encouragement are a constant source of strength. I look forward to our next adventure.



TABLE OF CONTENTS

- 1 . **DESCENT** . PODIUM . STRUCTURE . ‘IGNORANCE IS BLISS’
- 11 . **DELUSION** . SALT LAKE . FAITH . IDOLS . ATOMIC CITY .
- 27 . **SYSTEMATIC COLLAPSE** . EASTER ISLAND . IMPORTING TURF . GREENSWARD, USA . “MOTHER NATURE’S LITTLE HELPER” . UNNATURAL GROUND . STANDARDS . STIMPMETER . GREEN DESERT
- 57 . **IN OPPOSITION** . WATER FOUNTAINS VS. RAIN . TREES AND TELEPHONE POLES . THE MAGIC KINGDOM . EXPANSION . A COUNTERPART . NEVERLAND, UAE . FISHING . MEGALOPHOBIA . NEVERLAND, UAE . FISHING . PALMS . SNOWDOME . DEFINING NATURE
- 83 . **TEETERING TOWER** . EXPORTING DEFORESTATION . FOR SALE . ORANGE COUNTY, CHN . NUMBERS . EXPORTING FANTASY . “CHINA, LURCHING GIANT”
- 99 . **ASCENT** . GREENLAND NORSE . IMPORTING IDENTITY . CLIMATE SHIFT . COLLAPSE . A GLOBAL VILLAGE . ARCHITECTURE
- 109 . **REFERENCE** . ENDNOTES . BIBLIOGRAPHY
- 119 . **APPENDIX A** . DELUSION . SYSTEMATIC COLLAPSE . IN OPPOSITION . TEETERING TOWER
- 137 . **APPENDIX B** . DELUSION
- 139 . **APPENDIX C** . DELUSION INSTALLED
- 141 . **APPENDIX D** . SYSTEMATIC COLLAPSE
- 143 . **APPENDIX E** . IN OPPOSITION
- 145 . **APPENDIX F** . TEETERING TOWER



DESCENT	PAGE
FIGURE 1 . Ground floor plan of proposed installation space . <i>Digital image by author . 2006</i> .....	2
2 . Latitudinal section . <i>Digital image by author . 2006</i> .....	2
3 . Longitudinal section of TEETERING TOWER installation space . <i>Digital image by author . 2006</i> .....	3
4 . Longitudinal section of ASCENT opposite TEETERING TOWER installation space . <i>Digital image by author . 2006</i> .....	3
5 . World War II war bunker . <i>www.travelblog.org</i> .....	4
6 . DESCENT . Conceptual site of proposed installation space . <i>Digital image by author . 2006</i> .....	4
7 . Proposed entry to Gallery 1 . DESCENT . <i>Digital image by author . 2006</i> .....	6
8 . Conceptual rendering of the proposed installation space . <i>Digital image by author . 2006</i> .....	8
DELUSION	
9 . Floor plan of DELUSION installation space . <i>Digital image by author . 2006</i> .....	10
10 . Longitudinal section of DELUSION installation space . <i>Digital image by author . 2006</i> .....	10
11 . Proposed installation space . DELUSION . <i>Digital image by author . 2005</i> .....	14
12 A-R . Time lapsed screen captures . DELUSION . <i>Image by author . 2005</i> .....	16
13 . Selection from Salt Lake series . <i>Boris Mikhailov . 1986</i> .....	17
14 A-F . Time lapsed screen captures . DELUSION INSTALLED . <i>Image by author . 2006</i> ...	18
15 . Selection from Salt Lake series . <i>Boris Mikhailov . 1986</i> .....	19
16 . Selection from Salt Lake series . <i>Boris Mikhailov . 1986</i> .....	19
17 . Photographs of the installed screen . DELUSION INSTALLED . <i>Image by author . 2005</i> .....	20
18 . Photographs of the installed screen . DELUSION INSTALLED . <i>Image by author . 2005</i> .....	20
19 A-R . Time lapsed screen captures . DELUSION . <i>Image by author . 2005</i> .....	22
20 . Hollow wall . <i>Image by author . 2005</i> .....	23
21 A-R . Time lapsed screen captures . DELUSION . <i>Image by author . 2005</i> .....	24
22 . Radioactivity pamphlet . <i>Las Vegas: An Unconventional History. Ferrari, Michele &amp; Ives Stephens. 2005</i> .....	25
23 . Miss Atomic Bomb . <i>Wikipedia . Donald English . 1957</i> .....	25
SYSTEMATIC COLLAPSE	
24 . Floor plan of SYSTEMATIC COLLAPSE installation space . <i>Digital image by author . 2006</i> .....	26
25 . Longitudinal section of SYSTEMATIC COLLAPSE installation space . <i>Digital image by author . 2006</i> .....	26
26 . Proposed installation space . SYSTEMATIC COLLAPSE . <i>Digital image by author . 2006</i> .....	30
27 . Easter Island Moai (Plate 5) . <i>Collapse . Jared Diamond . 2005</i> .....	31
28 A-R . Time lapsed screen captures . SYSTEMATIC COLLAPSE . <i>Image by author . 2005</i> .....	32
29 . Easter Island (Plate 7) . <i>Collapse . Jared Diamond . 2005</i> .....	33
30 A-R . Time lapsed screen captures . SYSTEMATIC COLLAPSE . <i>Image by author . 2005</i> .....	34
31 A-R . Time lapsed screen captures . SYSTEMATIC COLLAPSE . <i>Image by author . 2005</i> .....	36
32 . "If you ate today thank a farmer" . S.A.A Dace Laboratories sign, Cambridge, Ontario . <i>Image by author . 2005</i> .....	37
33 A-R . Time lapsed screen captures . SYSTEMATIC COLLAPSE . <i>Image by author . 2005</i> .....	38
34 . Untitled . <i>Suburban Home Series Hai Ho . 2005</i> .....	39
35 A-R . Time lapsed screen captures . SYSTEMATIC COLLAPSE . <i>Image by author . 2005</i> .....	40

36 . Stereoscopic Images . <i>The American Lawn: Surface of Everyday Life</i> . Richard Sansone . 1998 .....	41
37 A-R . Time lapsed screen captures . SYSTEMATIC COLLAPSE . <i>Image by author</i> . 2005 .....	42
38 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH . <i>Image by author</i> . 2005 .....	44
39 . Artificial Turf Samples, top view . <i>The American Lawn: Surface of Everyday Life</i> . Diller + Scofidio . 1998 .....	45
40 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH . <i>Image by author</i> . 2005 .....	46
41 . Sun City Arizona . <i>The American Lawn</i> . Stephen Smith . 1982 .....	47
42 A-R . Time lapsed screen captures . SYSTEMATIC COLLAPSE . <i>Image by author</i> . 2005 .....	48
43 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH . <i>Image by author</i> . 2005 .....	50
44 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH . <i>Image by author</i> . 2005 .....	50
45 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH . <i>Image by author</i> . 2005 .....	52
46 . Augusta National Golf Course 10th Hole . <a href="http://www.augusta.com/masters/course-tour">www.augusta.com/masters/course-tour</a> . 2005 .....	53
47 . Bear's Best Las Vegas Golf Resort . <a href="http://www.weitzgolf.com/projects/golf-courses">www.weitzgolf.com/projects/golf-courses</a> . 2005 .....	53
48 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH . <i>Image by author</i> . 2005 .....	54
49 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH . <i>Image by author</i> . 2005 .....	54
IN OPPOSITION	
50 . Floor plan of IN OPPOSITION installation space . <i>Digital image by author</i> . 2006 .....	56
51 . Longitudinal section of IN OPPOSITION installation space . <i>Digital image by author</i> . 2006 .....	56
52 . Proposed installation space . IN OPPOSITION . <i>Digital image by author</i> . 2006 .....	60
53-56 . Local Tree Conditions . Cambridge Ontario . <i>Images by author</i> . 2006 .....	61
57 A-R . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	62
58 . Local Tree Conditions . Cambridge Ontario . <i>Images by author</i> . 2006 .....	63
59 A-R . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	64
60 A-R . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	66
61 A-F . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	68
62 . The Swiss Family Robinson Treehouse . <a href="http://www.archus.org">www.archus.org</a> . 2002 .....	69
63 . The Tree of Life . <a href="http://www.virtualtourist.com">www.virtualtourist.com</a> . 2004 .....	69
64 . The Liberty Tree . <a href="http://www.burnsland.com">www.burnsland.com</a> . 2003 .....	69
65 A-L . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	70
66 . The Palm, Deira . <a href="http://www.nakheel.ae">www.nakheel.ae</a> . 2001 .....	71
67 . The Palm, Jumeirah . <a href="http://www.nakheel.ae">www.nakheel.ae</a> . 2001 .....	71
68 . The Palm, Jebel Ali . <a href="http://www.nakheel.ae">www.nakheel.ae</a> . 2001 .....	71
69 A-P . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	72
70 . Dubai Waterfront Project . <a href="http://www.nakheel.ae">www.nakheel.ae</a> . 2003 .....	73
70 A-F . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	74
71-73 . The Palm Jumeirah Land Construction Aerial View . <a href="http://www.nakheel.ae">www.nakheel.ae</a> . 2002 - 2003 .....	75
74 A-X . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	76
75 . The Palm Deira Plan . <a href="http://www.nakheel.ae">www.nakheel.ae</a> . 2003 .....	77
76 A-L . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	78
77 . Snowdome Exterior Rendering . <a href="http://www.ameinfo.com">www.ameinfo.com</a> . 2005 .....	79
78 . Snowdome Site Photo . <a href="http://www.ameinfo.com">www.ameinfo.com</a> . 2005 .....	79
79 . Snowdome Interior Rendering . <a href="http://www.ameinfo.com">www.ameinfo.com</a> . 2005 .....	79
80 A-F . Time lapsed screen captures . IN OPPOSITION . <i>Image by author</i> . 2005 .....	80
81 . Snowdome groundbreaking ceremony . <a href="http://www.ameinfo.com">www.ameinfo.com</a> . 2005 .....	81

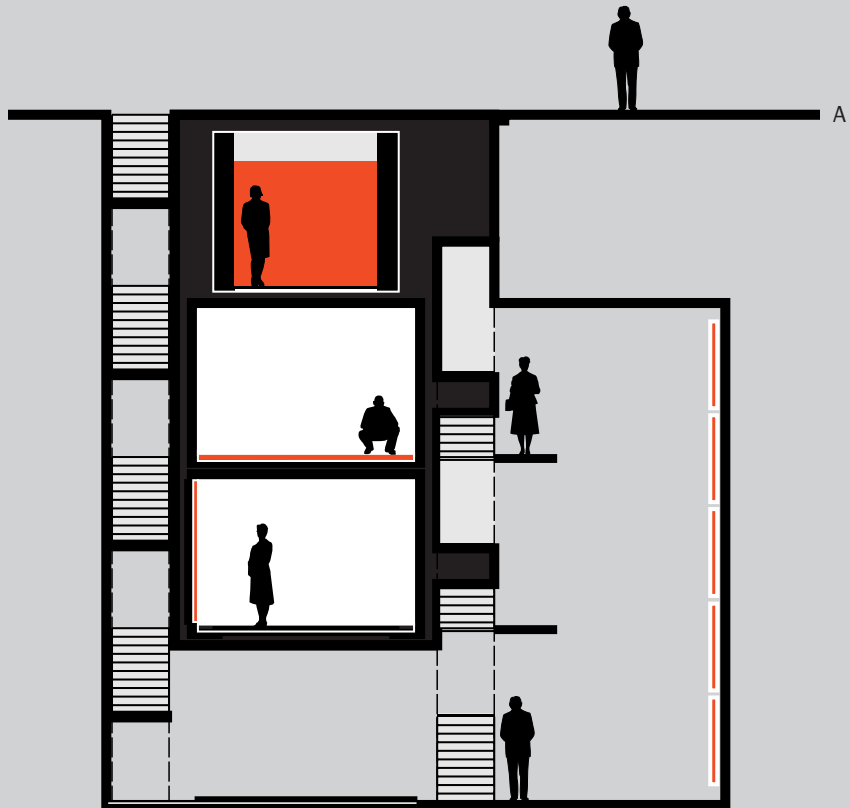
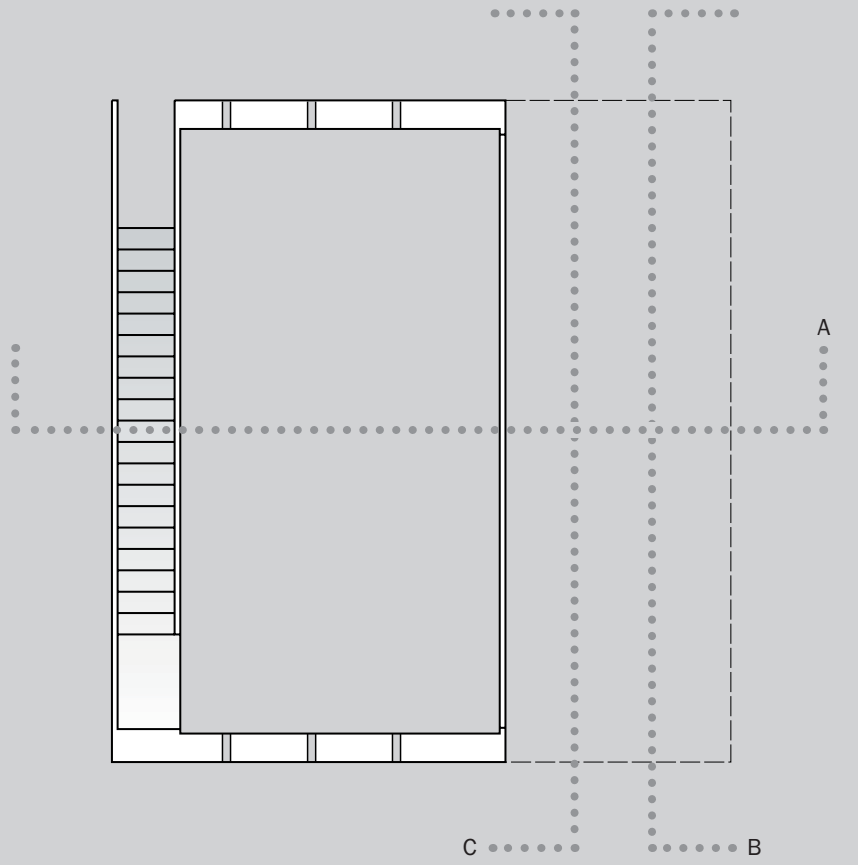


TEETERING TOWER	
82 . Floor plan of TEETERING TOWER installation space . <i>Digital image by author . 2006</i> .....	82
83 . Longitudinal section of TEETERING TOWER installation space . <i>Digital image by author . 2006</i> .....	82
84 . Proposed installation space . IN OPPOSITION . <i>Digital image by author . 2006</i> ....	86
85 . Jenga instructions . <i>Jenga Mark II . Robert Grebler . 1985</i> .....	88
86 . Obsolete technical garbage, China (Plate 27) . Collapse . <i>Jared Diamond . 2005</i> .....	89
87 . Rabbit infestation, Australia (Plate 30) . Collapse . <i>Jared Diamond . 2005</i> ...	89
88 A-R . Time lapsed screen captures . TEETERING TOWER . <i>Image by author . 2005</i> .....	90
89 A-R . Time lapsed screen captures . TEETERING TOWER . <i>Image by author . 2005</i> .....	92
90 . Cell phones #2, Atlanta 2005 . <i>Chris Jordan . 2005</i> .....	93
91 A-R . Time lapsed screen captures . TEETERING TOWER . <i>Image by author . 2005</i> .....	94
92 . Untitled, Summer Nights Series . <i>Robert Adams . 1985</i> .....	95
93 A-R . Time lapsed screen captures . TEETERING TOWER . <i>Image by author . 2005</i> .....	96
ASCENT	
94 . Hvalsley Stone Church (Plate 15) . Collapse . <i>Jared Diamond . 2005</i> .....	101
APPENDIX A	
95 . Elevation of filming set . DELUSION . <i>Digital image by author . 2005</i> .....	120
96 . Section of filming set . DELUSION . <i>Digital image by author . 2005</i> .....	121
97 . River at night . Cambridge, Ontario . <i>Digital image by author . 2005</i> .....	122
98 . Choreography plan . DELUSION . <i>Digital image by author . 2005</i> .....	123
99-100 . Fabric and lighting tests . DELUSION . 01:00:00;00 . <i>Image by author . 2005</i> .....	124
101-102 . Fabric and lighting tests . DELUSION . 01:02:04;03 . <i>Image by author . 2005</i> .....	124
103-106 . Fabric and lighting tests . DELUSION . 01:04:26;13 . <i>Image by author . 2005</i> .....	124
107-108 . Fabric and lighting tests . DELUSION . 01:05:07;01 . <i>Image by author . 2005</i> .....	124
109 . Fabric and lighting tests . DELUSION . 01:09:15;24 . <i>Image by author . 2005</i> .....	125
110-111 . Fabric and lighting tests . DELUSION . 01:09:55;06 . <i>Image by author . 2005</i> .....	125
112-113 . Fabric and lighting tests . DELUSION . 01:25:39;15 . <i>Image by author . 2005</i> .....	125
114-115 . Fabric and lighting tests . DELUSION . 01:28:04;08 . <i>Image by author . 2005</i> .....	125
116-117 . Fabric and lighting tests . DELUSION . Final studies . <i>Image by author . 2005</i> .....	125
118 . Cutting test patterns used in preliminary takes . SYSTEMATIC COLLAPSE . <i>Digital image by author . 2005</i> .....	126
119 . Section of filming setup . SYSTEMATIC COLLAPSE . <i>Digital image by author . 2005</i> .....	127
120 . SYSTEMATIC COLLAPSE . TO1 . CHECKERBOARD . <i>Image by author . 2005</i> .....	128
121 . SYSTEMATIC COLLAPSE . TO2 . STRIPES W/ GUSTO . <i>Image by author . 2005</i> .....	129
122 . Site section . IN OPPOSITION . Salisbury Avenue, Cambridge Ontario . <i>Digital image by author . 2005</i> .....	130
123 . Concept Sketch . IN OPPOSITION . <i>Image by author . 2005</i> .....	130
124 . Site Photo . IN OPPOSITION . <i>Image by author . 2005</i> .....	131
125 A-G . Preliminary film tests . TEETERING TOWER . <i>Image by author . 2006</i> .....	132
126 . Film Layout documentation . TEETERING TOWER . <i>Digital image by author . 2006</i> .....	133
127 A-PP . Documentation of filming takes . TEETERING TOWER . <i>Image by author . 2006</i> .....	134-5
128 . APPENDIX B . DELUSION . <i>Video by author . 2005</i> .....	137
129 . APPENDIX C . DELUSION INSTALLED . <i>Video by author . 2006</i> .....	139
130 . APPENDIX D . SYSTEMATIC COLLAPSE . <i>Video by author . 2005</i> .....	141
131 . APPENDIX E . N OPPOSITION . <i>Video by author . 2005</i> .....	143
132 . APPENDIX F . TEETERING TOWER . <i>Video by author . 2005</i> .....	145



The building is a suspended bunker set within the ground; the first steps begin a descent below the surface of the asphalt.

# DESCENT



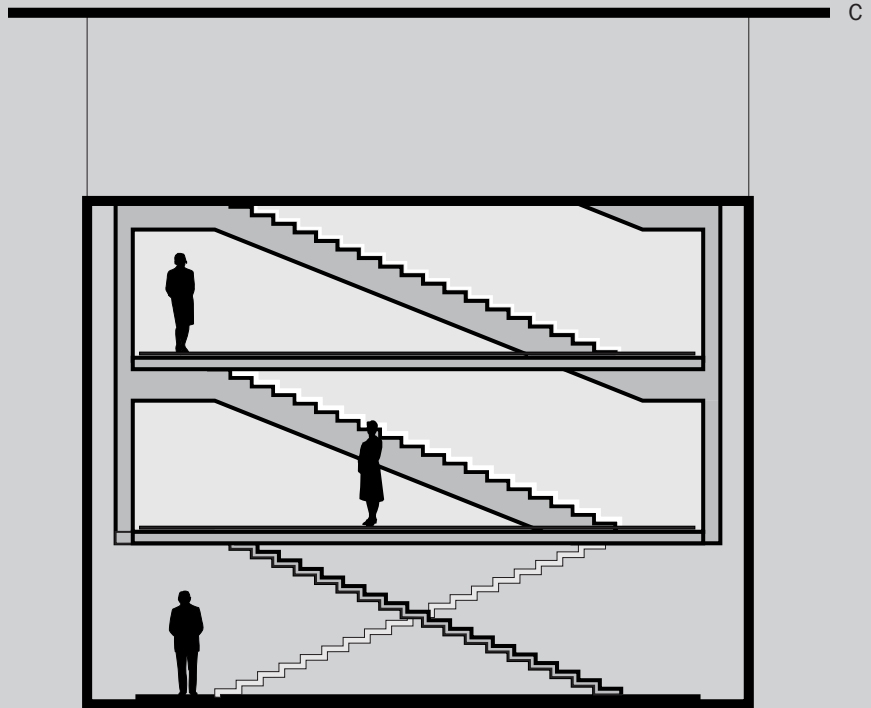
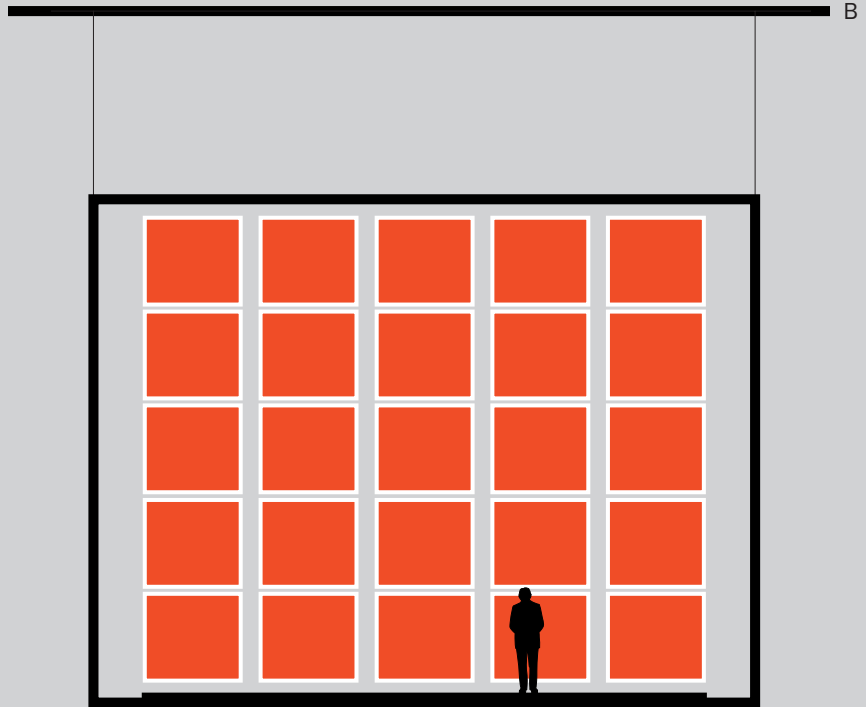




FIGURE 1-4 . Preceding pages . Left top . Ground floor of proposed installation space . Left bottom . Latitudinal section . Right top . Longitudinal section of TEETERING TOWER installation space . Right bottom . Longitudinal section of ASCENT opposite TEETERING TOWER installation space.

FIGURE 5 . Left . World War II war bunker.

FIGURE 6 . Below . DESCENT . Conceptual site of proposed installation space.



There are few plants that acquire, through accident, weakness or disease so many variegations as the tulip. When uncultivated, and in its natural state, it is almost of one colour, has large leaves, and an extraordinarily long stem. When it has been weakened by cultivation, it becomes more agreeable in the eyes of the florist. The petals are then paler, smaller, and more diversified in hue; and the leaves acquire a softer green colour. Thus this masterpiece of culture, the more beautiful it turns, grows so much the weaker, so that, with the greatest skill and most careful attention, it can scarcely be transplanted, or even kept alive.

Charles Mackay<sup>1</sup>

## PODIUM

We live in a controlled environment.

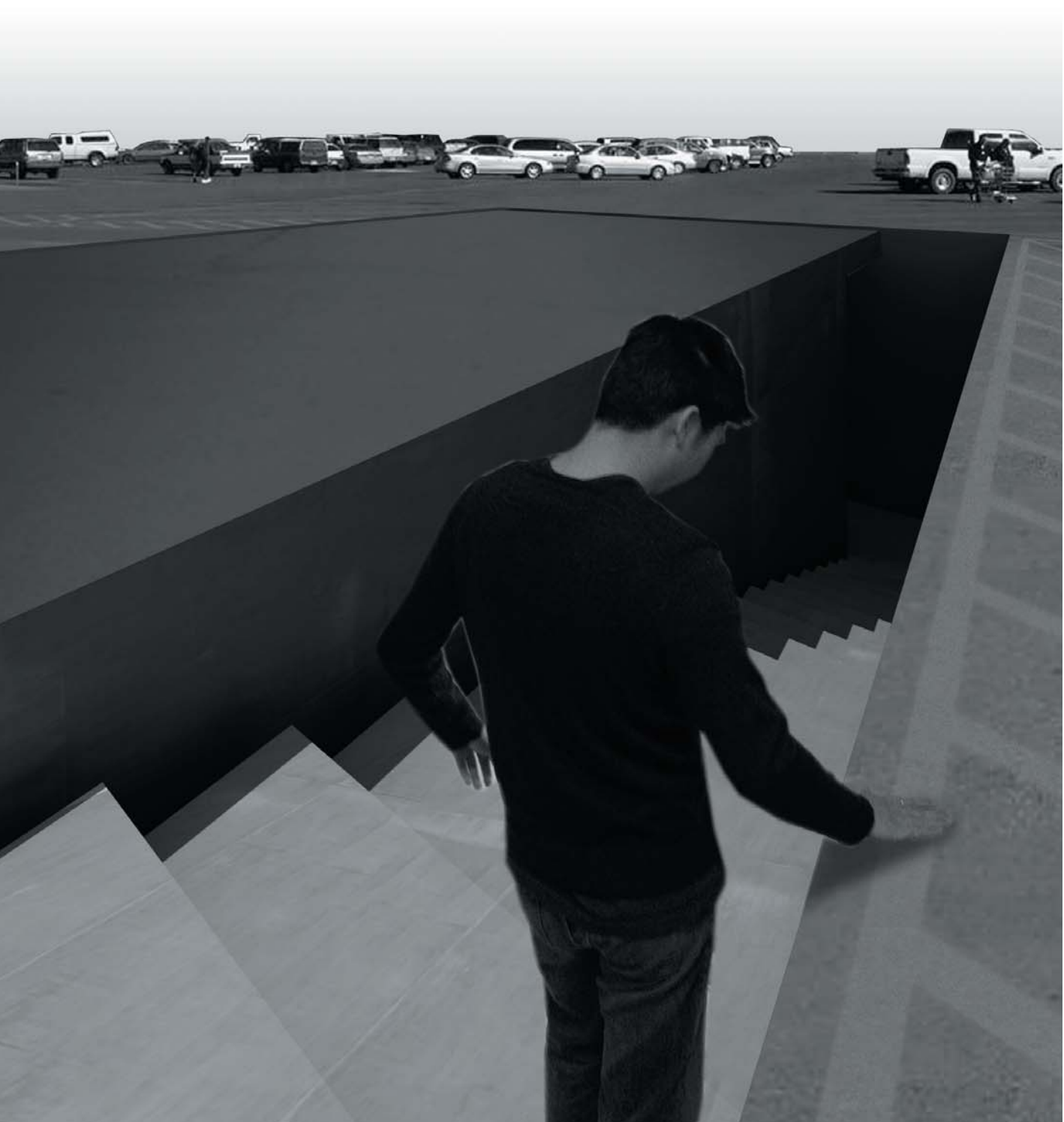
The air, the light, and the heat are artificial. The trees, the grass and the gardens have been planted. The homes, the streets, and the cities have been planned and constructed. We are essentially living in an elaborate stage set made possible by the marvels of technology and fueled by our ambition to live in comfort.

But our fantasies have grown with our technical capabilities. Now we have begun to build our sets at the scale of artificial landscapes and landforms, not merely buildings. Although inspired by the beauty and genuine experiences nature has afforded us, we have become frustrated by the limits imposed on us by its fragile and unpredictable character. Our fantasy has become to control nature or, if necessary, to replace it with an environment of our own making which can be manipulated, duplicated, marketed, and destroyed to suit our increasingly elaborate desires.

We are so convinced of our ability to transcend nature and its boundaries that we have begun to ignore obvious signs that we are reaching the natural limits of our resources. Confident that technology will soon be able to provide an artificial life support system for our natural environment so that we might continue to live as we have become accustomed, we continue to pursue lofty, superficial ideas of 'the good life.' However, under the now blinding glare of an impending energy crisis, we must now look past short-term solutions which inevitably lead to new problems. It is necessary that we begin to reevaluate an economic system which champions excessive consumption as paramount to its survival, and a culture, which in its very nature, is rooted in the daily ritual of the production and consumption of material goods.

Just as so many civilizations of the past have crumbled attempting to construct monuments to their idols in the face of major environmental collapses, we too may fall victim to our blind adherence to an unsustainable way of life which has for many years been cloaked in a glossy veneer of progress and success. Our faith in religion, once paramount to the functioning of society, has been succeeded by a similar reliance on technology and our economic system to provide us with security and stability. And thus, we pray to the stock market,

FIGURE 7 . Proposed entry to Gallery 1 . DESCENT.





build monumental shrines to consumption, and have faith that technology will soon replace those sacrificial elements of nature towards which we have come to feel nostalgic. We must now revisit our built environment naively and distill our true desires from what has quickly become a factory of illusion and artifice, an industry which is swiftly disguising what is left of reality.

The thesis employs the use of four orchestrated environments constructed to house the presentation of four video pieces. The four “galleries” attempt to parallel the conditions of a curated and constructed setting with our own elaborately manufactured reality. The films explore concepts of illusion, artifice, beauty, manipulation, control, ritual, consumption, and destruction. Each piece calls on the viewer to become personally engaged in both the footage and their physical relationship with the piece exhibited in space. The intention is to challenge the viewer’s tendency to remain unaffected by their environment, identifying the constraints put on our mind and body by our surroundings and developing methods to defamiliarize oneself with the conventional way we look at our world. This will require an internal revolution, a shifting of perception, a destruction of the idols imposed on us, and a reinstatement of our own mental faculties, seeing with eyes wide open the foundations of our built landscape.

## STRUCTURE

The thesis is divided into four chapters which parallel the four video pieces. Each section presents an idol representative of a “truth” from which cultural practices are conceived. The thesis attempts to dismantle these premises by revealing the tragic absurdity on which they are based.

Acknowledging the role of passive acceptance in the perpetuation of destructive ideals is the main theme of the first chapter. The metaphor of water is used to describe a total immersion into belief. The water, merely a liquid substance, becomes capable of holding a figure trapped in space. The next three chapters will build on this concept by requiring the reader to build their awareness of preconditioned perception and logic in order to regain the ability to see their environment and their cultural habits with fresh discerning eyes.

The second chapter discusses the systematic collapse of our resources under the guise of noble cultivation. Overworking the land to meet an unprecedented demand for material goods, the desire to consume, and its underlying association with cultural success, is valued far above the sustainability of our practices. The lawn and its maintenance are presented as a manifestation of these cultural ideals.

The third chapter concerns our blind faith in the merits of technological progress and more specifically in technology as a method of control. Nature is perceived as an opponent to human innovation and technology is the means to replace those facets of the natural environment seen to defy our desires for the fantastic. The thesis explores several examples taken from our contemporary built environment which exemplify the



FIGURE 8 . Conceptual rendering of the proposed installation space.

race to surpass the boundaries of our imagination in spite of nature.

The final chapter discusses the repercussions of our adherence to an economic system which measures progress in terms of unsustainable growth. The fiction that perpetuates the possibility of limitless growth is the false perception of limitless resources. In a global society where the world is shrinking everyday, we can now see the extent of our available reserves and their imminent exhaustion. In addition, the interconnected nature of our existence is becoming ever more apparent. Our reliance on each other to protect and sustain our natural resources is quickly becoming a crucial element in ensuring that our civilization continues well into the future.

#### 'IGNORANCE IS BLISS'<sup>2</sup>

As John Berger explains in his book, *Ways of Seeing*, "We only see what we look at. To look is an act of choice."<sup>3</sup> In the past, we chose to blind ourselves, an action which ironically required merely inaction. It is difficult to adjust to seeing for it can be both liberating and debilitating. It is understood that with awareness comes responsibility and with responsibility, change.

We have let creeping environmental problems lay dormant until this point, but inaction is no longer possible without serious repercussions.

The thesis aspires to become a catalyst to encourage active participation and vigilant sight in our everyday lives by using consciousness as the tool with which to provoke action. The collection of stories and cases that follow each exhibit their own poignant absurdity; some are contemporary examples while others recall a unique time and place, yet all are human tragedies. The intent of this work is to facilitate a reevaluation of those values which allow us to overlook our own tragic actions by dissecting the current tenets of our culture manifested in our built environment.

It will soon become apparent that we have built our foundations on hollow ground.

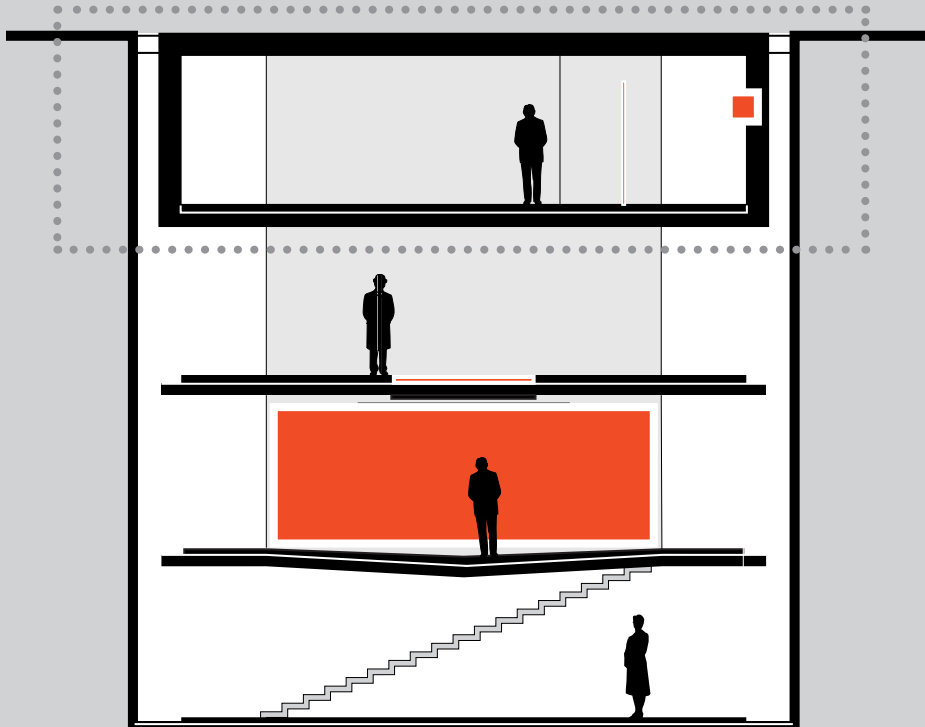
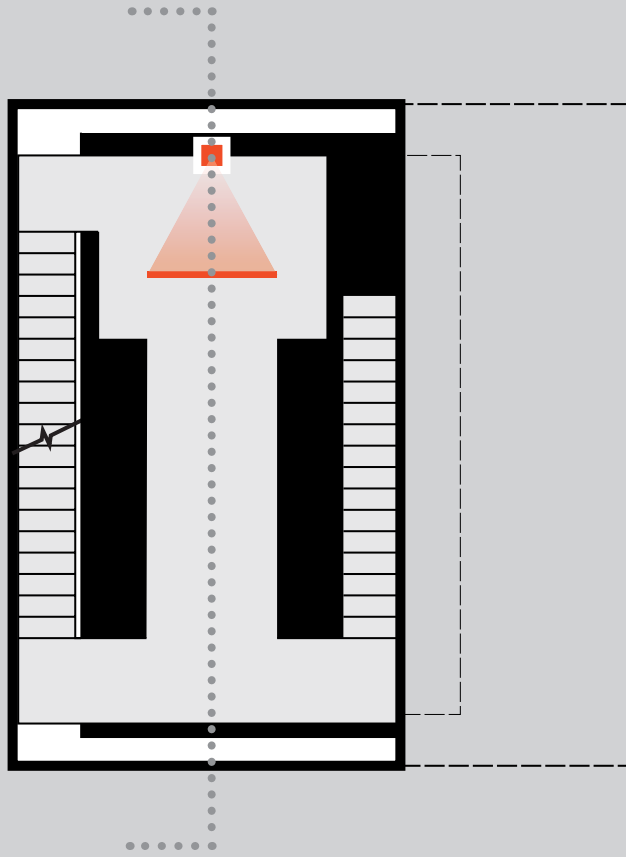


FIGURE 9 . Floor plan of DELUSION installation space.

FIGURE 10 . Longitudinal section of DELUSION installation space.

The concrete forms a sunken platform which snakes its way into the first gallery. Eyes are muddy; the room is a dark hall, at its end, a stationary wall that moves as a curtain. The liquid skin holds the body of a woman, suspended in an impenetrable depth.

Approaching the screen, the folds reveal themselves as sealed within the surface. Sliding behind the sheet its false depth is exposed.

# DELUSION

GALLERY1

## DELUSION

*The first piece, entitled DELUSION, parallels our passive belief system with the variable opacity of a river's surface. The water oscillates between several levels of translucency depending upon the surrounding environmental conditions. The depth is concealed and revealed, masked and exposed, at the mercy of the manipulation of light and factors of external interference. At night, the surface becomes a thick screen. What lives beneath this screen is visible only through limp and subtle stirrings which disturb the perfection of this skin, a viscous veneer which serves to separate the underworld from the visible.*

*Using the river as inspiration, the video installation attempts to mimic this condition while implicating the manipulation of the viewer's perception in the reading of the piece. The illusion is constructed by employing filmed footage of a subject walking behind a translucent fabric. When installed, this image is projected onto a still, paper thin, backdrop screen. The full size image of the figure and the folds of the fabric are seen on both sides of the membrane yet are caught within the flat sheet. Both the subject and the folds cease to exist in physical space, they are both sealed within the single two dimensional plane. The installation facilitates the meeting of two spaces: one virtual and the other a physical setting which exists in real time. The two spaces are mediated simultaneously by their relationship to the screen, which is at once a static plane and a seemingly translucent flowing curtain.*

*The apparatus of the illusion is clearly exposed as the viewer passes the screen. Similar to the stratagems used in the work of video artist, Michael Snow, the device itself must also be considered, structure thus becomes content. The juxtaposition of the device and its product allow the viewer to struggle with their obviously manipulated assessment of the illusion and their passive acceptance of this staged reality. The projection itself employs digital media, appropriate as it is an intangible medium: the image can only exist in conjunction with the façade. The depth of the image is in fact as thin as air, infinitely thinner than the screen on which it is ultimately displayed.*

## DELUSION

“In reading the history of nations, we find that, like individuals, they have their whims and their peculiarities; their seasons of excitement and recklessness, when they care not what they do. We find that whole communities suddenly fix their minds upon one object, and go mad in its pursuit; that millions of people become simultaneously impressed with one delusion, and run after it, till their attention is caught by some new folly more captivating than the first.

Men, it has been well said, think in herds; it will be seen that they go mad in herds, while they only recover their senses slowly, and one by one.”

Charles Mackay,  
*Extraordinary Popular Delusions and the Madness of Crowds*<sup>1</sup>



FIGURE 11 . Proposed installation space . DELUSION.



## SALT LAKE

From the window, the smokestacks begin to poke from the ground behind the hill like perfectly erect pitchforks tossed into the sand. The sun peeks out from between the towers, as the train descends towards the Lake.

The Lake is terminal, surrounded by lands owned by the soda factory which dumps untreated refuse into the water. People have traveled to the area for years. They board the train in nearby Slavjansk with buckets, beach towels and packed picnic lunches, children in tow as they struggle for the seats, eager to take a dip in the healing lake. They say it has powers, they say the water heals the body. Their faith and their desire to believe are stronger than any cynical doubts that might surface. After all, everyone wants to be new again.

The train slows to a stop surrounded by crumbling warehouse walls and unearthed bunkers. Wobbling ice cream carts and vendor stalls have set up shop between the station and the sands. The train empties quickly and the crowd moves as a single body towards the water, following the pipes which burrow through the sand to erupt at the Lake's edge. They are ready now, stripped down, bare toes stumbling over sharp rocks, warm fingers tickling the cold metal, bodies slip into the water.

The water is thick and smells of sulphur. Hands float effortlessly on the surface. They spring their chests against the stagnant liquid and drift further, fingers skim the top dragging the skin with them. The water is not empty, it is filled with salt flowing like syrup, stinging legs and feet, holding the bodies tightly, making its way through their skin, seeping through their finger tips. Visions of underwater sea creatures nip at toes as feet scrape the ground under the dark membrane. Taking deep breaths; they dip below the skin, lost in the thick cloud.

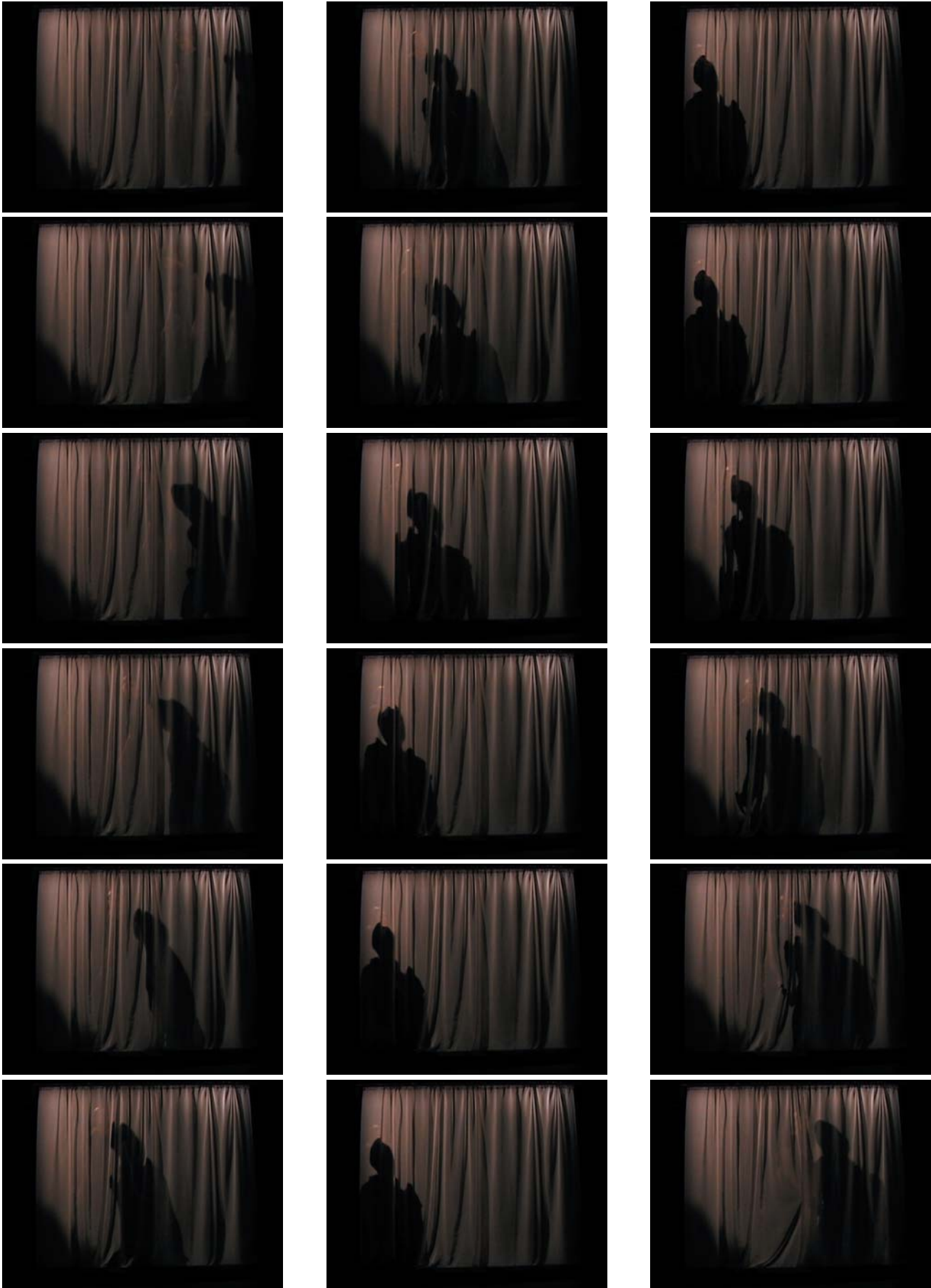


FIGURE 12 A-R . Left . Time lapsed screen captures .  
DELUSION.

FIGURE 13 . Below . Selections . Boris Mikhailov . Salt  
Lake series . 1986



FIGURE 14 A-F . Time lapsed screen captures . DELUSION  
INSTALLED.

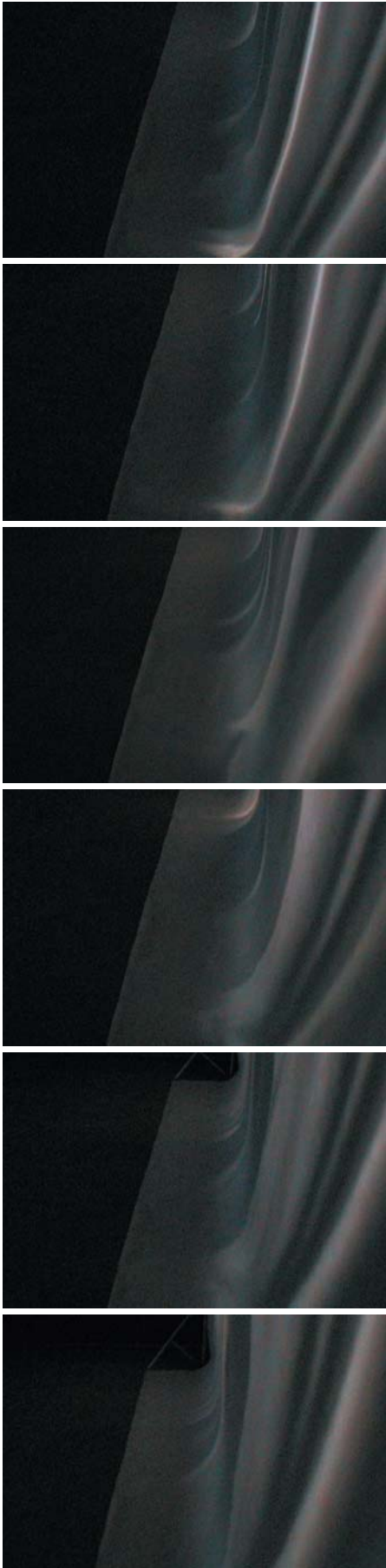






FIGURE 15, 16 . Selections . Boris Mikhailov . Salt Lake series . 1986





FIGURE 17 . Left . Photograph of the installed screen .  
DELUSION INSTALLED.



FIGURE 18 . Below . Photograph of the installed screen .  
DELUSION INSTALLED.

## FAITH

Those who believe come to this lake because of the potential for the supernatural, for something contrary to the presupposed concepts of the natural. They come because, in spite of the pollution and rubble, their faith drives them to believe that the lake could actually be a beautiful place that heals. Everyone has the need to believe that where they live and how they live has the potential for beauty. It is faith that allows them to perpetuate their self-imposed delusion even though logic and their sensory faculties might object to it. Faith and belief are passive, and they require merely silent conformity to perpetuate an ideal.

One might ask how many delusions we live with in order to make our lives possible. Perhaps we need our delusions so that our conscience will allow us to go on living as we do. It is our delusions which allow us to bathe in industrial waste, but more importantly it is our delusions which allow us to enjoy it.

## IDOLS

In his manifesto, *Twilight of the Idols*, written in 1889, Nietzsche warns against the fragile tendency of the masses to follow imposed dogmas which do not have their best interest in mind. He was speaking about natural instincts, and how “reason”, predicated on the precepts of the church, was conceived in contrast to our instinctive needs. Unlike the church, our current secular beliefs in material gratification and technological deliverance were conceived in an effort to facilitate our wants and needs. However, similar to the influence elicited by the Christianity of Nietzsche's day we have become susceptible to a blind dependence on the constructions of these new systems of control to govern our actions and our perception of the world around us. New idols have emerged, once again cloaked by faith and imposing yet another rigid structure which will have to be dismantled in order to reconcile our civilization with its true instincts and necessities.

The origins of this new system of control began with industrialization, which spawned a new way of living. This lifestyle relied on technological invention to propel visions of successful modern life and a complete social dependence upon the seemingly erratic fluctuations of wages and markets to obtain these goods. Because of this confidence in a virtually invisible economic system, Carl Jung posits:

. . . an individual was created who was unstable, insecure and suggestible. This individual was aware that his life depended upon boards of directors and captains of industry, and he supposed, rightly or wrongly, that they were chiefly motivated by financial interests. He knew that, no matter how conscientiously he worked, he could be victimized at any time by commercial changes which were far beyond his own control. And there was nothing else for him to rely upon.<sup>2</sup>

A new secular faith emerged, which promised safety, security

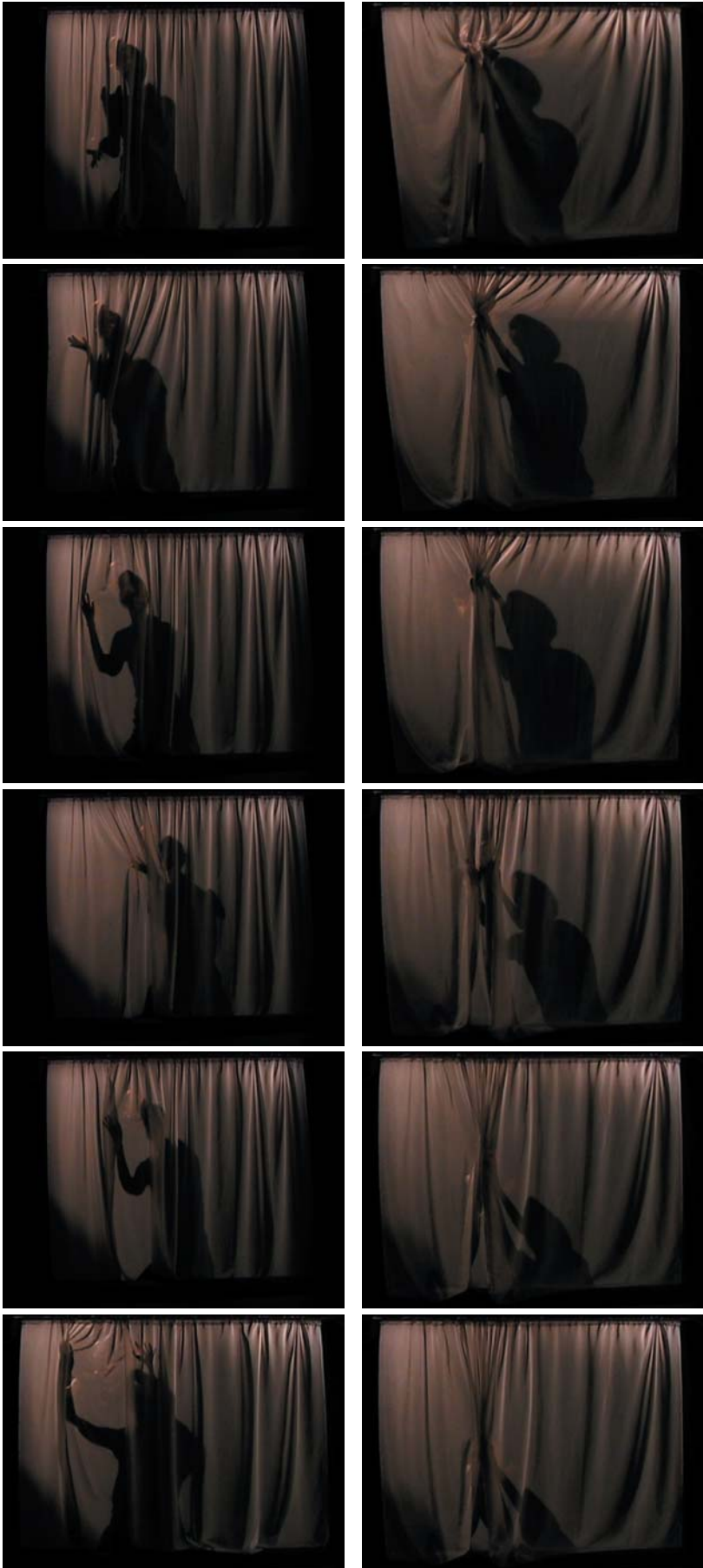


FIGURE 19 A-L . Time lapsed screen captures .  
DELUSION.





FIGURE 20 . Hollow Wall . Photograph taken at the School of Architecture in Cambridge Ontario . The door is provided as the path of least resistance, yet the entire wall is exposed as merely a fragile curtain which can be pulled aside.

"All that is solid melts into air, all that is holy is profaned, and man is at last compelled to face with sober senses, his real conditions of life . . ."

Karl Marx, *The Communist Manifesto*<sup>14</sup>

and beauty in exchange for blind trust. Its precepts were simple and centered on consumption which was paramount to its continued existence. Success, however, was measured not by the sustainability of the system, but in its exponential and limitless growth, which created a "commodity fetishism", championing a desire for excess. As David Suzuki explains:

. . . since the Second World War, our culture and our government policies have actually discouraged thrift, personal savings or debtlessness, while encouraging and rewarding ever-rising patterns of consumption and debt. We've been exhorted by ads, taxes and our global media culture to believe that having more money in order to buy more things is the real ticket to happiness.<sup>3</sup>

Deluded by this system of economic control, we no longer see ourselves as part of an environment which relies on the balance of natural systems in order to sustain itself. It is far easier to believe that our economic system is responsible for our survival, for it maintains our steady supply of food, water, and energy.<sup>4</sup> Confident that technology and economic strategists will be able to devise solutions to the emerging energy crisis, we continue to live in this manner, ever-increasing our swollen ecological footprint, unaffected by the impending limits of our natural resources.

Cleverly cloaked in an elaborately devised marketing strategy, our economic system maintains and expands its influence through what Guy Debord terms the "spectacle", manipulating representations to perpetuate and expand its own social order.<sup>5</sup> This system will continue as long as the participants agree to sacrifice their consciousness for the sake of this order. As Jung theorized, "Society is the greatest temptation to unconsciousness, for the mass inevitably swallows up the individual who has no security within himself, and reduces him in any case to the condition of a helpless particle."<sup>6</sup> Due to this structure, each member of society merely exists as a part of the whole. This of course, has detrimental effects on the concept of accountability for the group's actions. A healthy society must rely on the personal responsibility of its individual members to regulate and censor the group. However, in a world where most individuals are completely blinded by routine and desensitized to their own social practices, the actions of the group are likely to remain unchecked, feeding a system which will inevitably lead to a major societal collapse.

Nietzsche classified all precepts which were imposed upon us by human intervention as idols; his aim was to instigate "a revaluation of all values", through the irrefutable sounding out of these idols. Armed with a tuning fork, his intention was to strike them so as to illicit a hollow reverberation. With a mischievous contentment he declared, ". . . that which would like to stay silent has to become audible."<sup>7</sup>

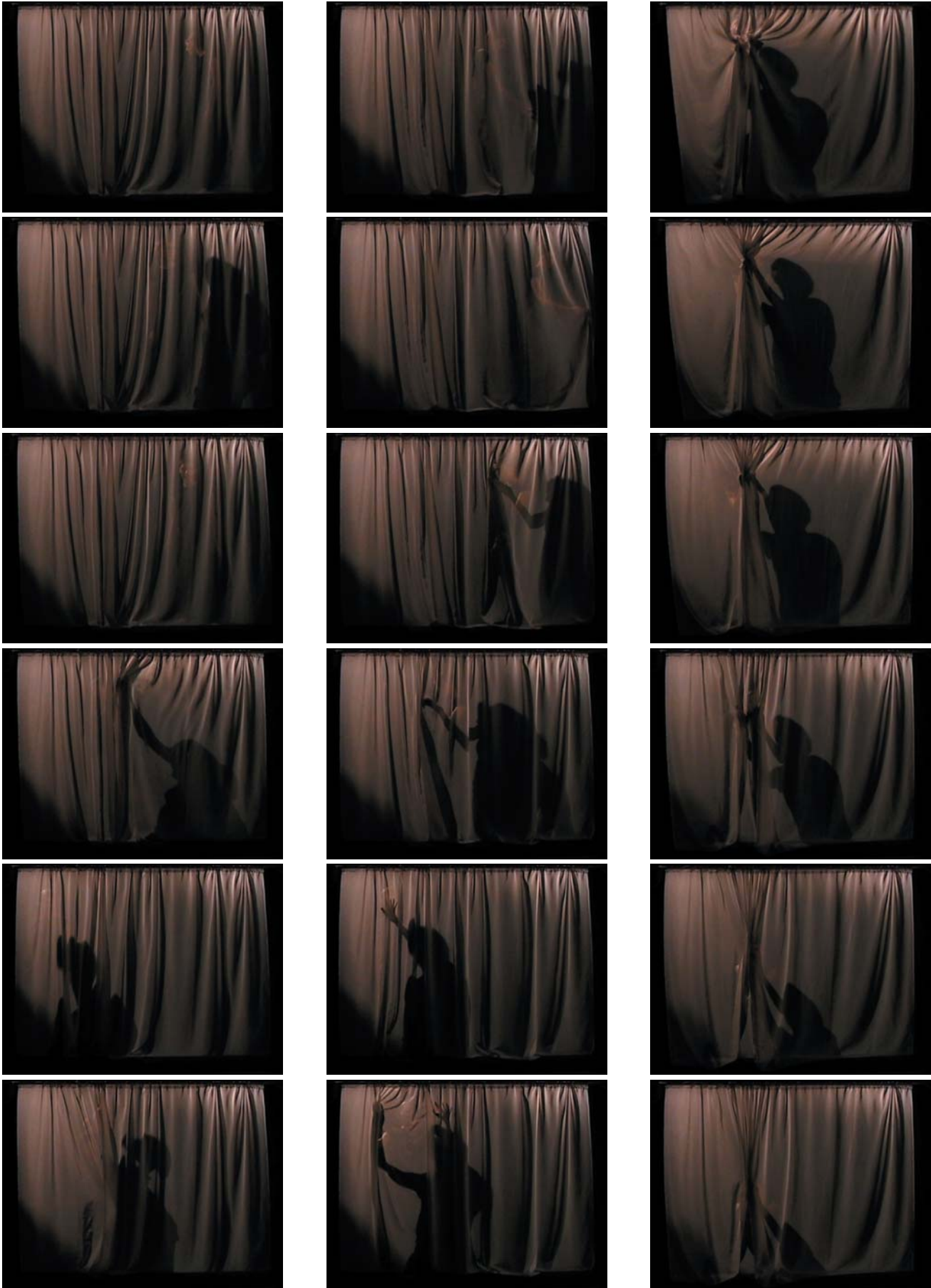




FIGURE 21 A-R . Left . Time lapsed screen captures . DELUSION.

FIGURE 22 . Top . Radioactivity pamphlet distributed in the 1950's to appease the concerns of local Las Vegas citizens wary of the effects of the nuclear test site.

FIGURE 23 . Above . Miss Atomic Bomb . Las Vegas icon from the 1950's.

## ATOMIC CITY

On January 27 1951, the Atomic Energy Commission carefully exploded its first atomic bomb on U.S. soil. The nuclear test site, located sixty-five miles from downtown Las Vegas, was 640 square miles of unpopulated, federally owned land which had previously housed an air force bombing and gunnery range. Every five weeks for the next twelve years, this was the site of an aboveground bomb detonation.

The decision to detonate close to home was met with little resistance from the local residents who, ignorant of the side effects that would take years to appear, regarded their acceptance of the testing as proof of their American patriotism and the source of a new found legitimacy for a town previously synonymous with the words "whirlpool of vice".<sup>8</sup> The locals were eager to reap the benefits offered by the new spectacle, including government subsidies, well paying jobs, and a booming tourist industry which marketed the explosions nationally and pulled in flocks of bomb hungry spectators from across the US.<sup>9</sup> Hotels and motels boasting uninterrupted views of the blast site were filled to capacity in season with the scheduled explosions, while others offered day excursions ending with a picnic at the north end of the city where visitors could get a panoramic view of the mushroom cloud as it erupted from the ground.<sup>10</sup>

The new spectacle, heralded by the "Las Vegas publicity machine" as, "just one more of the city's many dazzling attractions", spawned a marketplace of atom bomb related paraphernalia. The city adopted the mushroom cloud as its icon and the infamous shape even graced the yearbook covers of local high schools.<sup>11</sup> The town was growing exponentially and business was enjoying the effects of the intense tourism boom.

It wasn't until near the end of the decade when incidents of strange behaviour and beta particle burns on local animals began to surface, prompting residents to petition for a ban on atmospheric detonations. A Limited Test Ban was not implemented until several years later, and the extent of the ill effects of the blasts were not realized until well into the next decade. The site stopped testing nuclear weapons in 1992 in compliance with a worldwide suspension on nuclear testing.

The current government is considering reopening the testing facilities in an effort to assess the value of its aging nuclear weapons supply and to develop what they have termed, "nuclear bunker busters" or earth-penetrating weapons which can infiltrate rock or concrete to destroy underground military bunkers.<sup>12</sup> Local hoteliers who could perhaps provide the most persuasive voice against the reopening have chosen to speak carefully regarding the subject. Nevada state senator, Dina Titus believes that, "gaming's in kind of a corner, because if it says too much, and then testing happens, they'll have scared people away."<sup>13</sup>

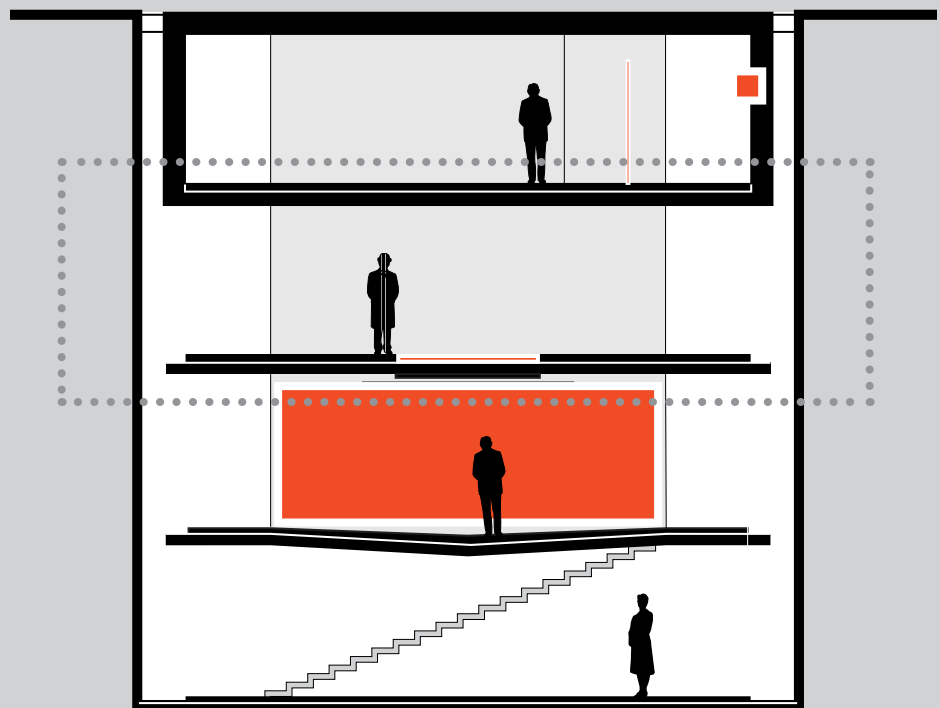
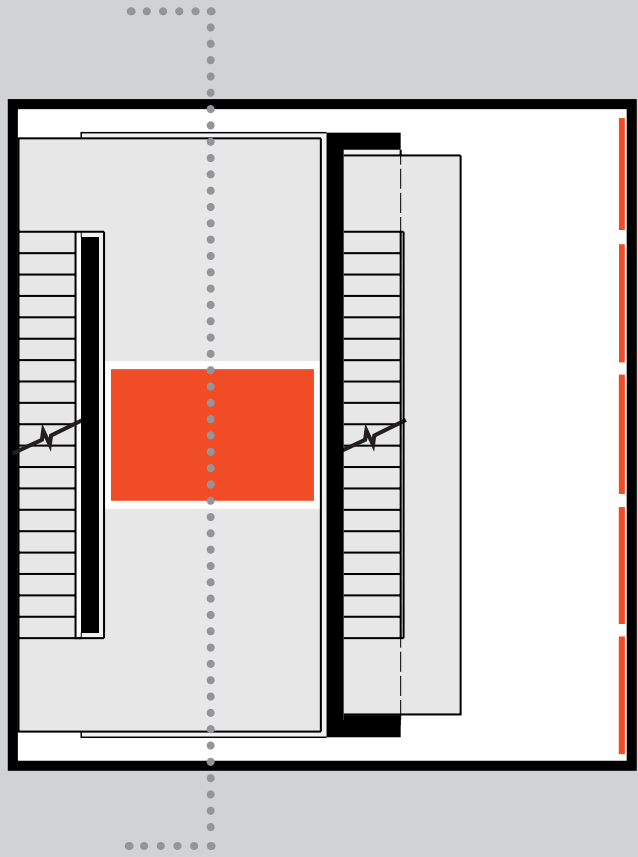


FIGURE 24 . Floor plan of SYSTEMATIC COLLAPSE installation space.

FIGURE 25 . Longitudinal section of SYSTEMATIC COLLAPSE installation space.

Descending further, light spills from within the second gallery, staining the floor below. The floor is breached, light pours from its cracks. Moving atop the screen, footsteps outlined by light, head down, aware of one's weight, bodies are projected onto the ceiling.

# SYSTEMATIC COLLAPSE

GALLERY2

## SYSTEMATIC COLLAPSE

*The second chapter addresses our unreasonable desires for excess which result in the unsustainable use of the land. Our relationship to the land is expressed as a constant and unwavering cut through the passive soil. Tolerant of our intimate exploitation, the land absorbs our manipulation willingly. Tragically, it is through our resolute abuse, disguised as seemingly dutiful and beautiful human intervention, that an irreparable scar is at last exposed.*

*The SYSTEMATIC COLLAPSE is a ten minute film shot with three cameras positioned above, beside and beneath a vessel filled with seeds. The seeds are continuously and consistently divided with a blade. As this act is performed the cuts are simultaneously traced on the underside of the skin which holds them suspended above the lower camera. The film documents the systematic cuts as they inevitably become scars left in the surface of the skin. The skin, weakened by this relentless manipulation inevitably succumbs to the load imposed upon it. As the audience anticipates the release, they become frustrated and consequently crave the devastation. It is the suspension of the penetration of the skin which implicates the viewer in the act. The bystander can not be disconnected from what he/she witnesses. As the audience allows the act to continue, they become inextricably linked to the act and its repercussions.*

## SYSTEMATIC COLLAPSE

Systematic collapse describes a knowing progression towards a cataclysmic failure: an intentional creeping towards disaster, although the effects of the progress are well known and unattractive.

One might ask why we are set adrift in a stubborn cycle of destruction, constantly revisiting the same working methods to deal with our problems. Instead of initiating a universal reevaluation of our collective ideals and fantasies, we once again head to the workshop adamant that our tools are the culprits, but that our goals of prosperity manifest in tangible goods are true and untainted. For if we were to revisit these ideals today, after so much of our system of beliefs and desires have developed based upon this fundamental credo, we might find that the foundations of our very way of life have been merely rooted in a shallow veneer of what we thought was happiness.

Our relationship with our land and its resources is flawed, and although it has become commonplace to expose the flaws within our habits of consumption, we continue to conduct ourselves under the false assumption that our resources are infinite. We repeatedly cultivate the land so as to squeeze the most profit out of each and every square metre. We are so accustomed to seeing our environment and our resources as commodities which can be exploited and traded, that as soon as they begin to expose their scars of years of misuse, we are quick to dispose of them and move on, leaving behind us a trail of waste and refuse.





FIGURE 26 . Proposed installation space . SYSTEMATIC COLLAPSE.





FIGURE 27 . Easter Island Moai . Collapse . Jared Diamond . 2005 . Reconstructed stone idols, originally erected by the tribes occupying Easter Island.

## EASTER ISLAND

When the Polynesian settlers arrived on the remote island of Rapa Nui, they must have been pleased with what they found. Although the cool climate was unable to support most of their traditional crops, the surrounding waters were rich in a variety of seafood. After five or six centuries on the island, their meagre numbers multiplied to peak at approximately ten thousand people. Socially they divided themselves into clans and, as was the tradition, began to honour their ancestry with impressive stone idols, or Moai, carved into solid rock and hoisted into place with an elaborate system of cut trees and rope.

Over time, their obsession with the statues grew, spawning competition within the clans to build increasingly larger and more impressive idols, the tallest equal to the height of a five storey building. Due to the feverish construction efforts imposed upon the natural resources of the island, the forests quickly began to shrink as the rate at which the trees were cut quickly exceeded the rate at which they could replenish themselves. Although there were efforts made to replant the trees their labours were thwarted by hungry rodents who had stowed away on the original voyage to the island and had transplanted themselves artificially into the delicate ecosystem.

By the year 1400 AD the island had become completely cleared of trees. Systematically, the woods had been replaced by a forest of man-made idols which covered the now infertile land.

For many years the people resorted to reusing old wood to construct boats and to erect the new idols which they continued to build. As the boats became unusable, tools became weapons; the dwindling population of the island began to fight over the remaining wood and food supplies. Remarkably throughout this time, the people continued to make statues, which had become all the more important as they signified the last hope the inhabitants had for survival.

We might think that in such a limited place, where, . . . islanders could survey their whole world at a glance, steps would have been taken to halt the cutting, to protect the saplings, to replant. . . But that is not what happened. The people who felled the last tree could see it was the last, could know with complete certainty that there would never be another. And they felled it anyway.<sup>1</sup>

The people of Easter Island were clearly unable to recognize the foolishness of their obsessions. Even when it was obvious that their mania was unsustainable, they resorted to blind faith in the same stone idols which had led to their ruin to protect them. Driven by an irrational adherence to their customs, the people's loyalty to their belief system was what ultimately led to their demise. The group believed in their way of life so intensely that they could not possibly see the collapse as a product of their recklessness as individuals; rather they considered their choices necessary to the pursuit of a life consistent with their values.

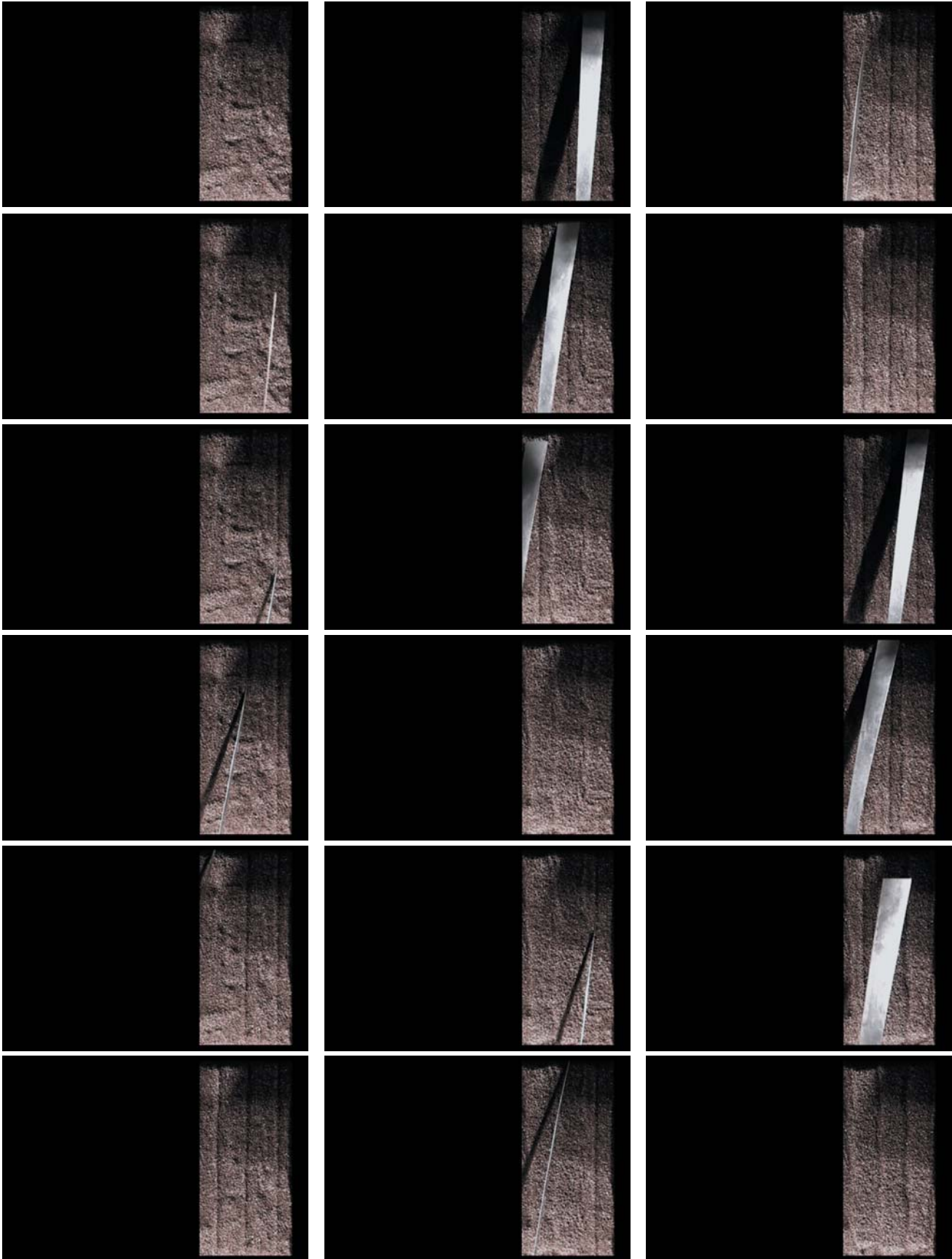
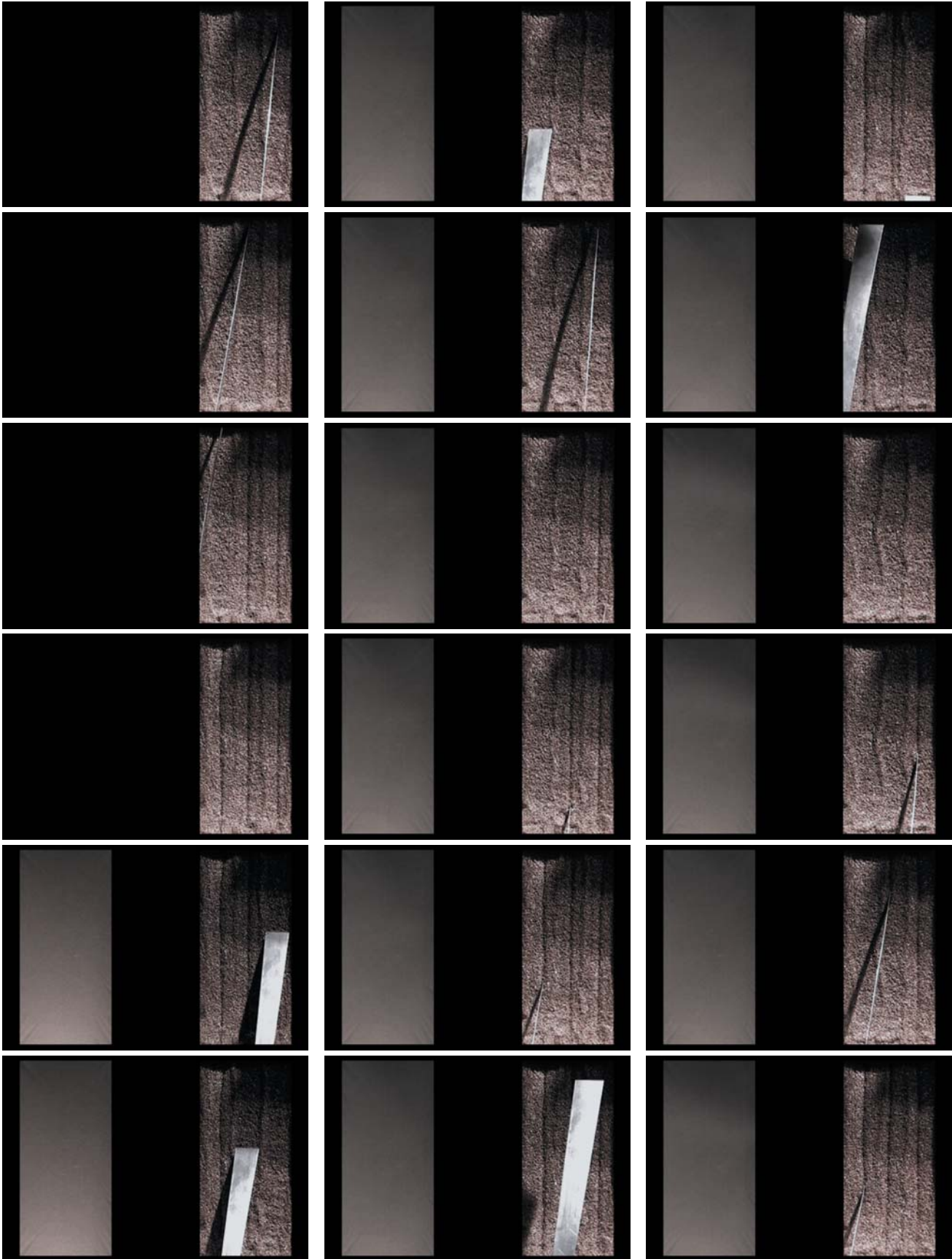


FIGURE 28 A-R . Left . Time lapsed screen captures .  
SYSTEMATIC COLLAPSE.

FIGURE 29 . Below . Easter Island . Collapse . Jared  
Diamond . 2005 . The barren landscape of Easter Island  
as it currently stands .







"[We must] look at space and the things which inhabit it, both animate and inanimate, through the eyes of perception and forget what we find 'entirely natural' about them simply because they have been familiar to us for too long."

Maurice Merleau Ponty<sup>2</sup>

#### IMPORTING TURF

There are 32 million acres of turf in North America, consisting of 58 million private lawns, 16 thousand golf courses, and 7 hundred thousand athletic fields. The lawn occupies more land than any single crop under cultivation including wheat, corn, and tobacco. Altogether Americans spend over 25 billion dollars a year on lawn care, including a staggering 750 million dollars spent on grass seed alone.<sup>3</sup>

The lawn first appeared in the 18th century as a feature on the grounds of the British aristocracy. Since it was only the upper classes who could afford to hire the labourers needed to maintain the landscape, lawns came to be seen as a privilege of the wealthy and an aspiration of the working class. The British climate, well suited to grasses, encouraged the lawns to flourish. However, manicuring the lawn was a constant struggle as aesthetic perfection became paramount to the image of the affluent citizen.

While the grasses that have become familiar ground in North America grow with relative ease in Europe, they are not native to this area and find the climate rather uncooperative. Nearly all the grass species that exist in North American lawns today have been imported from Europe, Asia and Africa, including Kentucky blue grass which is believed to have originated in the forests of northern Europe. When European colonists arrived in America they brought horses, cattle and sheep with them in order to begin again in the new world. The animals devastated the native grasses which were unprepared to deal with the grazing habits of the domestic animals. The Europeans imported and cultivated the familiar blue grass seed to feed the livestock and maintain their lifestyle.

The lawn did not begin to appear in front of homes until after the civil war and the creation of the middle class suburb, which required the home maintain a minimum thirty foot setback from the sidewalk. This gap created an opportunity for a whole new landscape type to emerge. The lawn began as both a beautifying feature as well as a garden in which to grow food and raise animals. At this time, the image of lawn as a neatly manicured carpet was unrealistic and unsupported by the majority of homeowners, who had no time to battle the natural climate of the area.





FIGURE 31 A-R . Page 36 . Time lapsed screen captures . SYSTEMATIC COLLAPSE.

FIGURE 32 . "If you ate today thank a farmer" . S.A.A Dace Laboratories sign posted in a local shop window . Cambridge Ontario Canada.









FIGURE 34 . Above . Untitled . Hai Ho . Suburban home in Cambridge, Ontario, Canada, a showcase of pride and silent conformity.

FIGURE 33 A-R . Left . Time lapsed screen captures . SYSTEMATIC COLLAPSE.

## GREENSWARD, USA

“Grass, of course, was the first wall to wall carpet. It is still the largest and most costly that you are likely to find around the average house.”<sup>4</sup>

House and Garden 1960

In 1947 Abe Levitt and his sons William and Alfred built more than 17000 homes in the potato fields of Long Island. The Levittown development was well received by the public as an affordable and desirable alternative to the squalor and overcrowding of the postwar urban centres.<sup>5</sup>

The development implemented a new mass produced housing prototype which was swiftly and easily assembled at grade, along with a quickly installed mass produced landscape to accompany the home. Landscaping was seen as a way to both bring value to the home and to quickly hide the scars of construction. However, achieving the perfect green carpet (to which we have all grown accustomed) required commitment and perpetual maintenance to combat the natural tendencies of the grass. Integral to the process is mowing, which keeps the plant from flowering and going to seed. By halting sexual reproduction, with its “genetic luck of the draw”, the grass is compelled to reproduce vegetatively, creating a web of underground stems that produces a vibrant thick turf.<sup>6</sup>

In order to create the garden community that Abe Levitt envisioned, regular lawn care would have to become the duty and desire of each homeowner. In fact, a clause was inserted into the deeds which made weekly lawn maintenance mandatory during the months of April through November.<sup>7</sup>

The first spring, the Levitts personally reseeded and retouched each lawn in the development, creating the precedent for the nation’s model community: a carefree, safe, green landscape. In Levittown, the lawn became a personal statement about the pride you had in yourself and your home, or as George Teyssot expresses it, “a public image of private life”.<sup>8</sup> By implementing neighbours and fellow citizens as watchdogs, cutting the lawn became a suburban ritual of keeping up appearances. Most outdoor activity was relegated to the backyard so that the lawn could be kept as the showpiece of the home. As Mark Wigley explains in his essay “The Electric Lawn”:

The lawn is first and foremost an image, something to be seen rather than used. Enormous effort is spent on constructing the right visual effect. The whole point of lawncare is that you do not have to display the family. Rather, you display the lawn itself as surrogate or certificate of your adherence to social norms. Even better, you display your lawn care activity. Working on the lawn is a civic duty of the gravest importance.<sup>9</sup>

Conformity was integral to getting along with neighbours in this “community based” living arrangement. The lawn was seen as a uniform face to the development which, if not maintained by the resident, would be taken care of for a fee. It wasn’t long before the principles of lawn maintenance were adopted, and home owners began to desire perfection. Vagrant crops of







FIGURE 36 . Stereoscopic Images . Richard Sansone . 1998 . Neighbouring lawn photographs, excerpt from *The American Lawn: Surface of Everyday Life*, an exhibition designed by Diller + Scofidio and installed at the Canadian Centre for Architecture in Montreal . 1998.

FIGURE 35 A-R . Left . Time lapsed screen captures . SYSTEMATIC COLLAPSE.



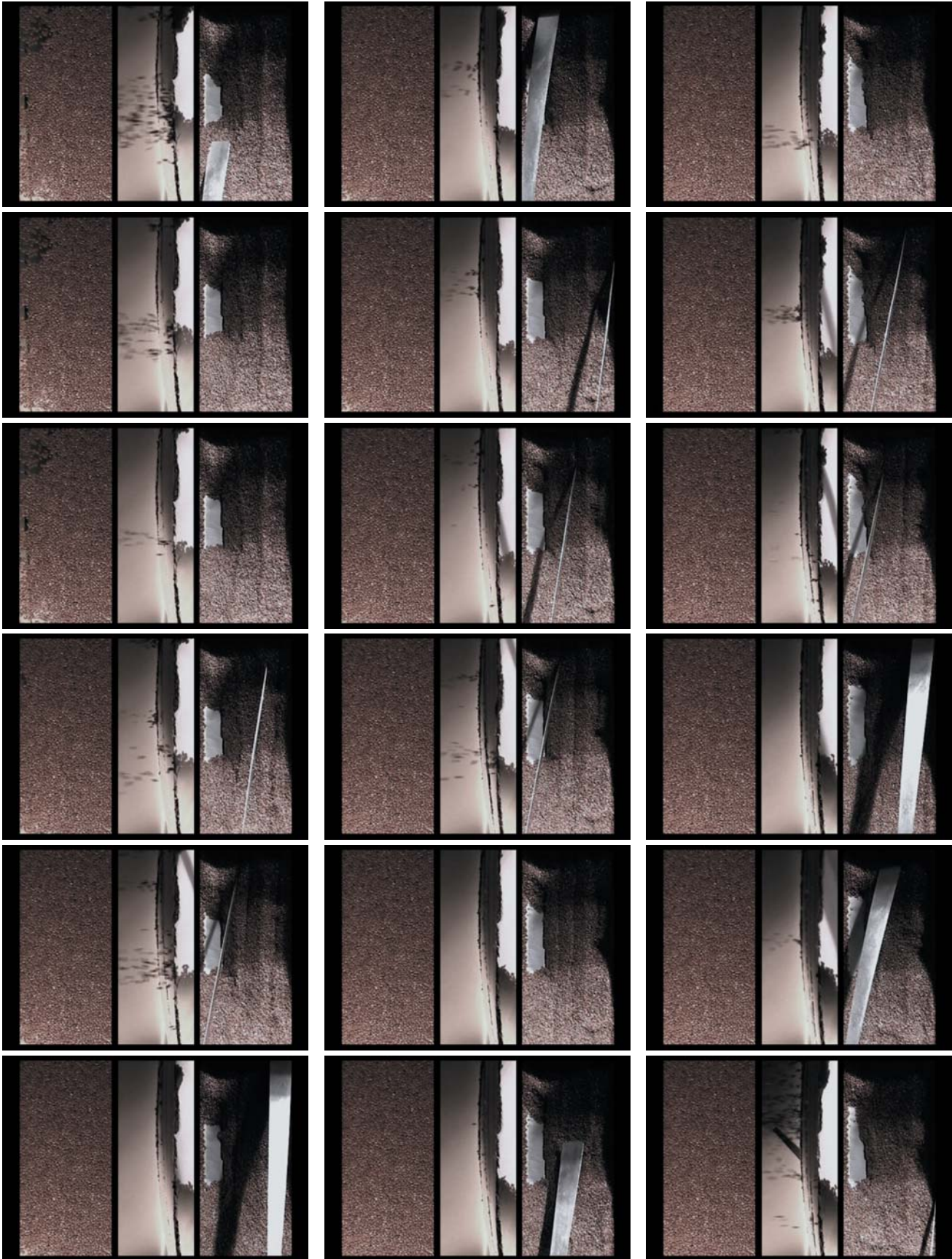


FIGURE 37 A-R . Time lapsed screen captures .  
SYSTEMATIC COLLAPSE.

clover and other “weeds” which served as naturally occurring fertilizers were criminalized as they threatened the aesthetic sanctity of their neatly shaven carpets of grass. Obsession drove residents to cut the turf to merely several inches high, requiring constant watering to keep the grass from drying out. Unfortunately, this technique caused the leeching of minerals from the soil, a negative side effect that could have been avoided by leaving the “unsightly” grass clippings on the lawn. Instead, chemical fertilizers were employed to replenish the soil.

#### MOTHER NATURE’S LITTLE HELPER

Emerging in a consumer climate which fed on the insecurities of citizens who believed that the lawn could be a manifestation of their place on the economic ladder, the Scotts Company attempted to sell not only lawn care, but an image of a potential lifestyle centered on a lawn culture.

As Ted Steinberg recalls in his book, *American Green*, Scotts adopted as their hallmark, “a lawn so perfect, so devoid of weeds and other blemishes, that it could easily be mistaken for something wholly artificial. And to a large extent, that is precisely what it was.”<sup>10</sup> The lawn quickly became a gem of artificial landscaping engineered by modern technology to oppose its natural tendencies and to reflect the owner’s relentless control over their environment.

Weed control herbicides, originally used as military weapons, were packaged and remarketed by Scotts to fight wild plants which threatened the sanctity of the lawn. By 1940, 83 cities had implemented weed control ordinances which required all homeowners to maintain their lawns and control weed infestations. They cited potential fire hazards, the harbouring of vermin and allergies as the catalysts for the laws.<sup>11</sup> Despite dissension from some who believed the lawn should be encouraged to revert back to its natural state, alien to such relentless human intervention, lawn advocates continued the battle for a sober submissive environment which they could control. Robert J. Samuelson, columnist for Newsweek, affirmed the merit of the proud lawn tradition despite ecological critiques in his article “The Joys of Mowing”, in which he stated, “In an era when almost everything is beyond our control, our lawns are not. We are a better country for our lawns, and we need more--not less--grass.”<sup>12</sup>



FIGURE 8 . *Selected pieces* . SYSTEMATIC COLLAPSE  
THE AFTERMATH



## UNNATURAL GROUND

Beyond mowing and herbicides, science has made many forays into importing or engineering the perfect grass strain itself. In the early twentieth century, Frederick Winslow Taylor began research into the efficiency of turf grass. In actuality, he was attempting to improve the soil, creating an artificial ground that would grow grass at a higher grade, a luxury for the roots.<sup>13</sup> Implementing scientific principles to develop efficient synthetic tools, Taylor intended to correct the imbalance between fantasy and reality, leading to a systematic colonization of the wild.

Similar investigations were pursued by those who saw potential in the possibilities promised by Taylor's original attempts. Established in 1962 and headed by renowned turf grass breeder, C. Reed Funk, The Center for Interdisciplinary Studies in Turfgrass Science at Rutgers University, adopted similar goals to its predecessors: the invention of a supergrass through "development of herbicide resistant grasses, improving turf cultivation techniques, [and] developing grasses with better stress tolerance and pest resistance."<sup>14</sup> By the time Monsanto installed the first commercial application of artificial turf, or Astroturf, in the Houston Astrodome in 1966, the growing and maintenance of the lawn had become such an artificial endeavour that the grass may well have been synthetic.<sup>15</sup>

In the late 1990's, Monsanto teamed up with Scotts to develop genetically engineered grasses. The "Roundup Ready Bent Grass" would be resistant to pesticides marketed by Monsanto, creating an easily treatable, golf course friendly strain of the popular grass which previously frustrated course superintendents because of its perpetual infiltration by annual bluegrass. However, concerns began to arise regarding the potential backlash of the natural environment in contact with biotech grasses. Worries spread concerning whether these grasses could be controlled, whether they could spread, and whether they could pass on genetic resistance to natural grass species, potentially creating a new generation of "superweeds".<sup>16</sup>



Tufted, polypropylene fibrillated fiber turf  
(primary polypropylene backing)  
face weight 60 oz  
golf  
Tour True Turf Technologies



Tufted, polypropylene fibrillated fiber turf  
(action latex backing)  
face weight 14 oz  
patios porches  
Tour True Turf Technologies



Omnicrot 7V27U  
Tufted, slit-film polypropylene  
(urethane backing)  
face weight 27 oz  
tennis  
Stadia Turf Systems

FIGURE 39 . Artificial Turf Samples, top view . Diller + Scofidio . 1998 . Excerpt from The American Lawn: Surface of Everyday Life, an exhibition designed by Diller + Scofidio and installed at the Canadian Centre for Architecture in Montreal . 1998.

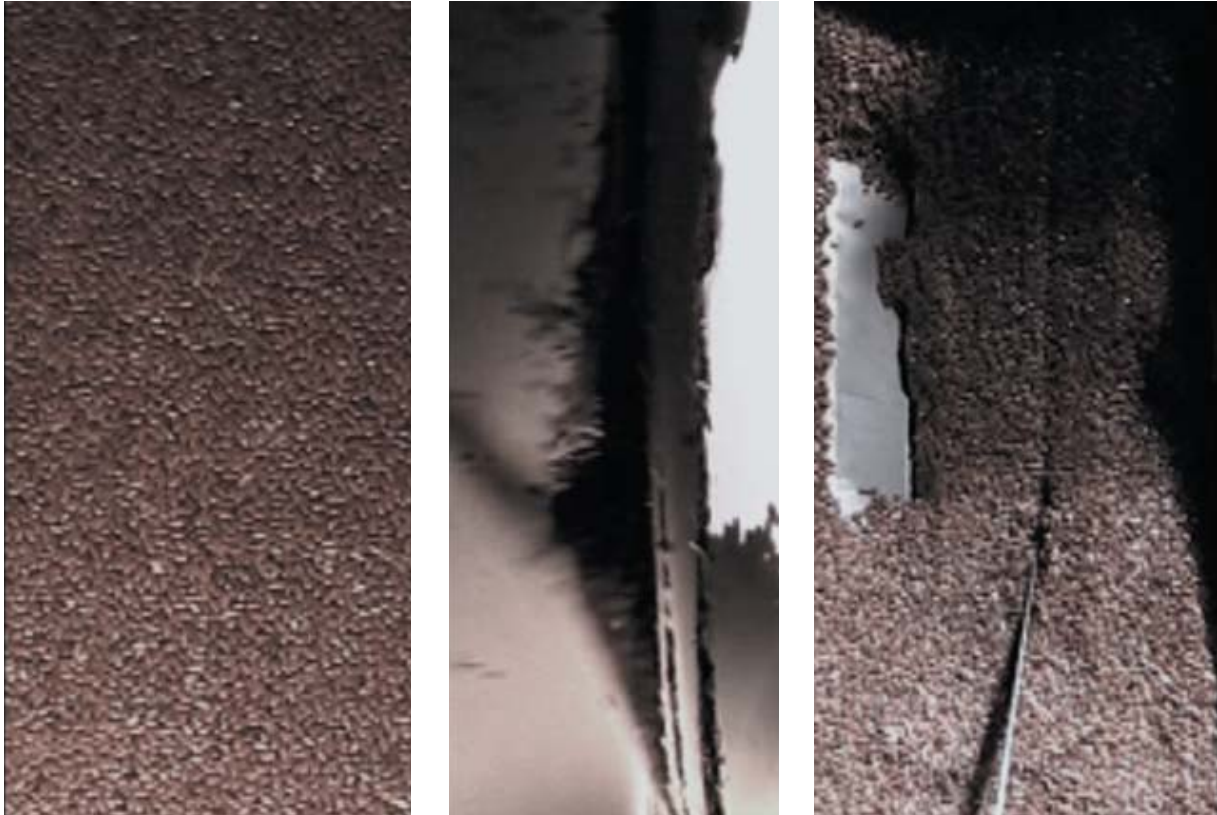


FIGURE 40 . Time lapsed screen captures . SYSTEMATIC COLLAPSE



FIGURE 41 . Sun City Arizona . Stephen Smith . 1982 . Painted rock gardens used in lieu of grass lawns in cities where water restriction bylaws are in place.

## STANDARDS

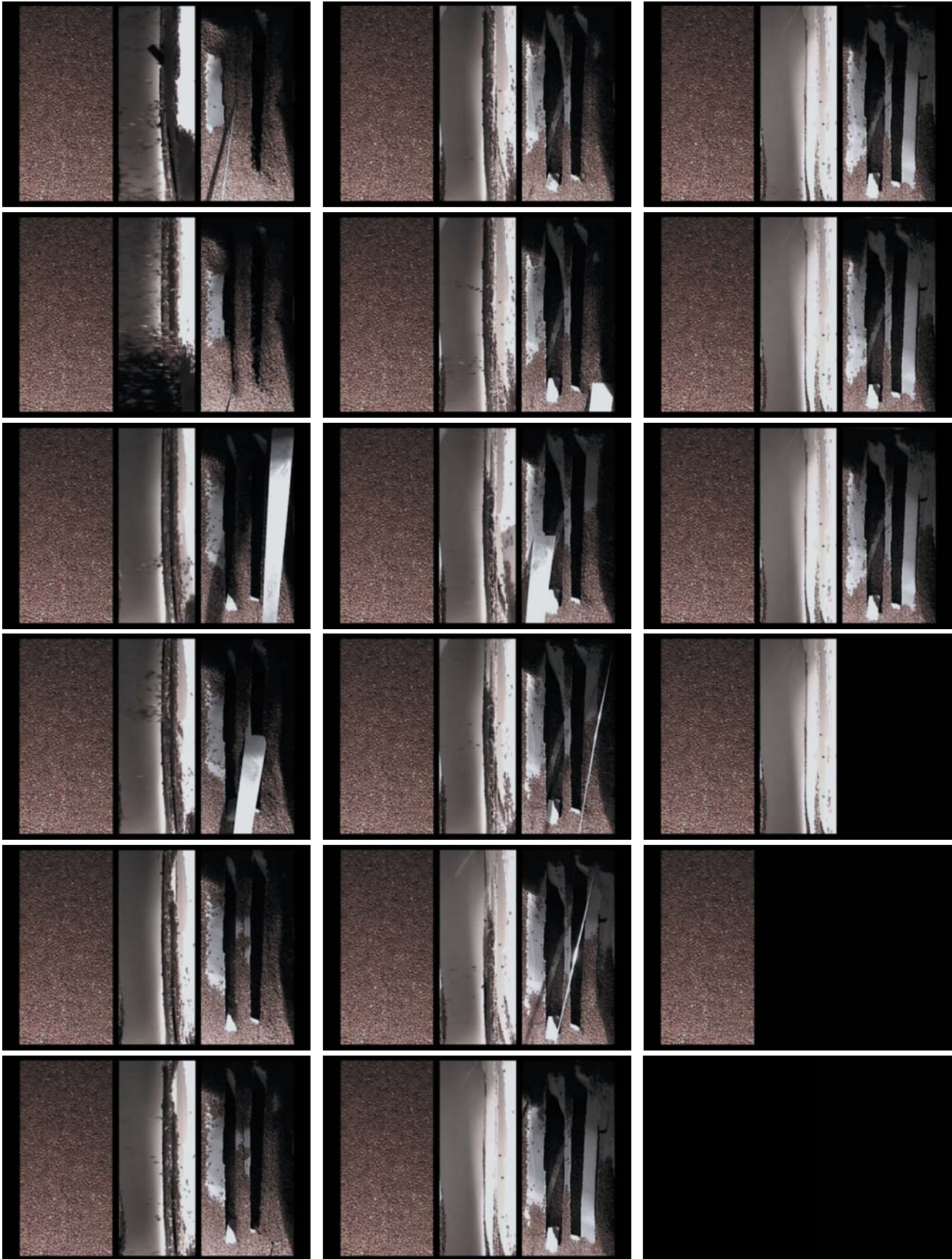
Lawn care standards are created at The Augusta National.

Built in 1932, in Augusta Georgia, the golf course is world renowned for its immaculately manicured lawns. Ted Steinberg refers to Augusta as “the gold standard in lawn care and one of the most impeccable landscapes in the entire world. Nothing is spared for the sake of perfection; nothing is left to chance.”<sup>17</sup> Excellence is customary on the course, site of the Masters, the most influential and sought after golf championship in the world.

Reports have circulated documenting the use of 1000 watt light bulbs to preserve the condition of the fairway left in shadow by the geography of surrounding trees. The course employs an underground piping network to pump hot and cool air beneath the grass to create the ideal growing conditions for the implanted grass. The maintenance crew uses scissors to trim the grass around sand traps. At certain times of the year, the grass is cut twice a day in a perpendicular weave pattern so as to prevent ruts forming. The grass on the greens is one eighth of an inch high.

When the Masters tournament was first televised in 1956, the grass was the stage for the biggest event in golf history. In 1966, the event was broadcast in colour for the first time. Brown was to be avoided at all costs, even if paint was necessary; Augusta was closed for half the year to prepare for the tournament which required extensive renovation and maintenance to produce green. The vision of “championship conditions” and vibrant green became ideals that were soon demanded by amateurs at their local courses.





## STIMPMETER

In the mid thirties, Edward Stimpson invented a device later coined the Stimpmeter that would allow players to measure the speed of a putting surface. This speed, and by extension the score of the player, was largely dependent on the length of the grass. The Stimpmeter was pulled out of obscurity in the mid-seventies and caused a fanatical stir amongst golf enthusiasts, who demanded faster greens to compete with the condition of professional courses. "Your greens are your resume,"<sup>18</sup> was the credo adopted by golf clubs across America, caused the drive towards shorter grass which dropped the average length of greens from half an inch to extremes of one eighth of an inch.<sup>19</sup>

Augusta led the way in this race towards "scalping" the lawn. Once covered in Bermuda grass, a species known for its resilience to warmer climates, the greens were ripped up and replaced with bent grass which exists there currently, a species only suitable to cooler climates. The grass was chosen both for its ability to maintain a vibrant green colour during the summer (when Bermuda grass had the tendency to turn brown), and for its ability to be uniformly cut to short lengths. Mowing low created a whole new set of problems; the grass, already handicapped by its preference for cooler climates, became susceptible to the inevitable consequences of cutting the grass short, which affects the plants ability to produce carbohydrates used in photosynthesis. This results in shallow roots vulnerable to turf disease, wear and tear inflicted by the golfers themselves, and exposure to extremes in temperature which are normally mediated by the grass and depth of earth in which they are submerged.

"The ecological stability of a putting green is comparable to a bowling ball balanced on a cue stick." explains Paul Alexander, former education director of the golf course superintendents association of America.<sup>20</sup> The maintenance of a golf green finds the course super in a constant struggle with nature, caught in a losing battle. The superintendents starve the grass into submission by cutting down the fertilizer to maintain the speed of the course. This causes more weeds, and therefore requires more herbicides to combat the insurgence. In fact, the USGA (the national governing body of golf in the United States), warns against attempting to maintain championship conditions for more than a limited time as it can result in what they term as "turfgrass failure".<sup>21</sup>





FIGURE 43 . Left . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH.

FIGURE 44 . Left Below . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH.

SOMETIMES MOTHER NATURE NEEDS A LITTLE HELP

By Stanley J. Zontek  
Director, Mid-Atlantic Region, USGA Green Section  
Reprinted from the USGA Green Section Record 1990 March/  
April Vol 28(2): 5

Trees cause serious grass growing problems on golf courses, and their removal is often necessary when this occurs. Unfortunately, tree removal is not simple. Unless the tree is absolutely dead and falling over, people have a difficult time agreeing to remove it. As a result, some turf areas on many golf courses are consistently thin and weak.

A weed is defined as any plant which is growing out of place. A geranium in a bed of pansies is a weed, for example, and would be removed. Similarly, a tree that blocks sunlight or impedes air circulation alongside a green or tee could be considered a weed and should be removed if the situation is bad enough.

Today's golf course superintendent is charged with growing quality golf turf. The problems caused by shade, poor air circulation, tree root competition, and litter removal make this job difficult, if not impossible. It's a fact that the weakest greens, tees, and fairways on practically any golf course are those located in pockets of trees. The link between areas of weak turf and the proximity of many trees is no coincidence. Strong turf near trees is the exception, not the rule.

This situation is well understood by golf course superintendents. Convincing others of the need to thin, prune, or remove these trees, however, is not easy even though the root of the problem is the tree, not a deficiency in the cultural maintenance program.

Herein lies the substance of my turf tip . . . helping Mother Nature improve turf conditions.

The thesis is simple; nobody can complain when the forces of Mother Nature remove trees from a golf course. Therefore, why not harness natural forces like thunder and lightning to help the process along?

A good example of putting Mother Nature to work was developed by Superintendent Tim Kennelly and Green Chairman Marvin Lynch at the Naval Academy Golf Club in Annapolis, Maryland. They named one chainsaw Thunder and another Lightning and proceeded to strike down the trees that were causing serious turf problems on their course.

This tongue-in-cheek turf tip actually has a serious message for many golf courses. Trees, shrubs, overhanging limbs, and underbrush can cause grass growing problems which adversely affect the superintendent's ability to grow healthy turf. A certain amount of tree work is needed on practically every golf course, despite the inevitable resistance from course officials and golfers-at-large.<sup>22</sup>



FIGURE 45 . Above . Selected piece . SYSTEMATIC  
COLLAPSE THE AFTERMATH.





FIGURE 46 . Top . Augusta National Golf Course.

FIGURE 47 . Above . Bear's Best Las Vegas Golf Resort . Vibrant green golf resort sited adjacent to desert landscape.

## THE MEADOWS

Struggling to supply the country with the water needed to sustain the vibrant green shade of grass to which all lawn owners aspire continues to be an impossible task. Because lawn culture erupted at a time of abundant and cheap water, the image of the iconic lawn is an inflated dream which in reality can not be maintained. Cities around America, plagued by water shortages, have begun to pass legislation that attempts to control aesthetic water usage. In areas of Pennsylvania, and in Greensboro, North Carolina, homeowners can be cited for evidence of irrigation. And in Colorado, the state passed legislation that prohibited neighbourhood developments from establishing watering requirements; although landscaping covenants for existing developments were not voided.<sup>23</sup>

Las Vegas, Nevada is situated in the driest region of North America. Receiving only four inches of natural rain annually, the city had previously relied on its ancient springs to compensate for the shortfall. This system sufficed until 1950 when the city began to use a State of Nevada allocation from the Colorado River to meet its water needs. This allocation was a result of negotiations made between the seven states which border the river. However, all decisions were made before the population of the city increased exponentially, which created a water supply crisis. Despite water shortages, the city stubbornly continues to flaunt itself as an oasis in the desert. Michelle Ferrari cites previous triumphs over nature and a gleeful optimism in technology as the impediments to cultural change in Las Vegas. As she explains in her book *Las Vegas: The Unconventional History*, "the natural bounty, such as it was, could never have sustained the city's rampant, explosive growth, much less kept the place green. As the population doubled and doubled and doubled again, Las Vegas bet the farm on the transformative power of technology and effectively willed the very idea of scarcity away, covering it over with a dazzling illusion of plenty."<sup>24</sup>

Water consumption statistics document the water use of Las Vegas residents as averaging over 300 gallons of water per day. This per-capita consumption is greater than any other city in the world. The entertainment industry uses approximately 16% of the city's water, including the three dozen golf courses currently in the region. Single family homeowners account for 64% of the city's water use, and 2/3 of that is used to water their lawns.<sup>25</sup> The habits of the suburban Las Vegas population demonstrate a complete disregard for climate and a relentless adherence to the image of the 'American Lawn'. As James Howard Kunstler explains in his book, *City in Mind*:

An effort has been made over recent years to conserve water. It has been difficult to persuade newcomers from more verdant parts of the United States to quit trying to grow grass lawns in Las Vegas and instead decorate their property with desert botanicals and gravel called xeriscaping. The program tends to be at odds with one of the main reasons that Americans choose houses on large lots in the first place which is, theoretically, so that children will have a patch of lawn to play on.<sup>26</sup>



FIGURE 48 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH.

FIGURE 49 . Selected pieces . SYSTEMATIC COLLAPSE THE AFTERMATH.





Although the city has attempted to change the landscape by offering incentives to those willing to tear up their grass, there is still an overwhelming amount of green in the desert. Believing that building this fantasy is a manifestation of success and strong morals, the majority of citizens, although more than happy to settle for imitations of all wonders of the modern world built upon the infamous strip, refuse to settle for a “fake” lawn.

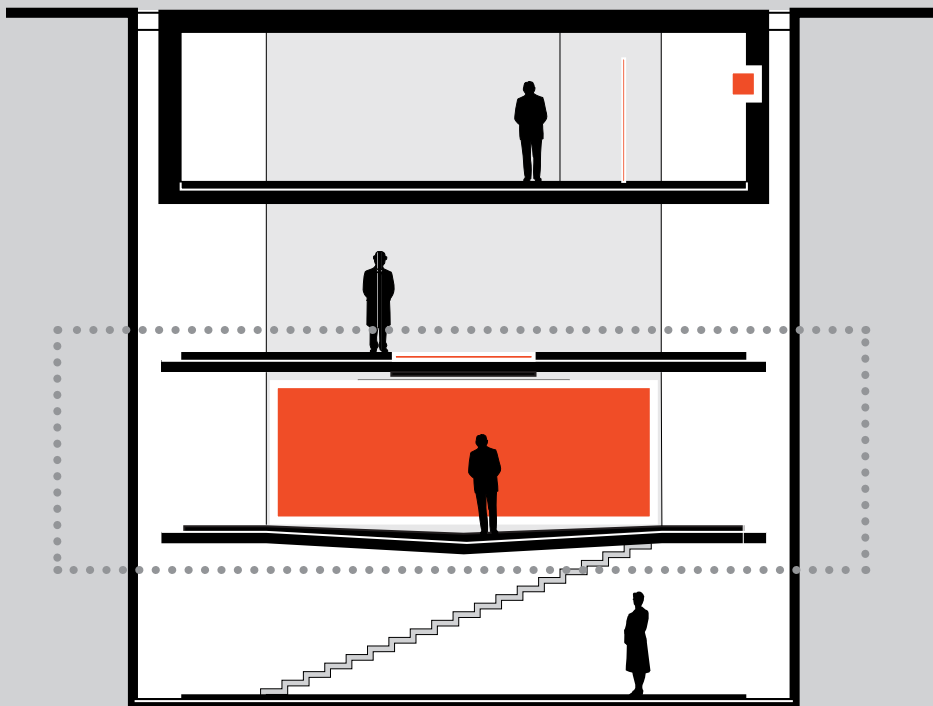
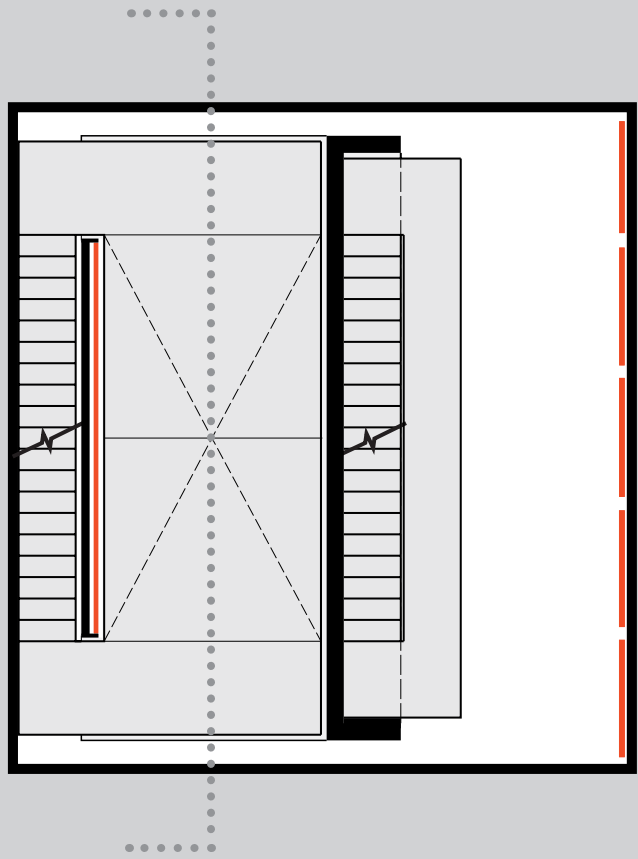


FIGURE 50 . Floor plan of *IN OPPOSITION* installation space.

FIGURE 51 . Longitudinal section of *IN OPPOSITION* installation space.

The third gallery is separated from the stair with a continuous wall that plunges from the surface of the hole. Turning the threshold, wall becomes screen. Mirrored in the polished floor, the image is slightly skewed, the ground slants imperceptibly; a gather at its centre reveals its guise.

# IN OPPOSITION

GALLERY3

## IN OPPOSITION

*IN OPPOSITION* documents a series of experiments performed on a nearby hill. The film presents a game; the battle to usurp nature with human intervention and force under the guise of entertainment. The setting is a product of the human desire to flatten the world and manipulate it through technology to meet our specifications. Once again, the viewer's perception is clouded by the director's whim, a participant whose presence is conspicuous. This curated perspective portrays the land as an opponent to progress which must be conquered; gravity, a force which distorts our movement and intentions.

The piece has been shot with the camera positioned perpendicular to the hill's natural slope. Therefore, the subjects are seen as unusually slanted as their bodies adjust to the pull of gravitational forces acting upon them. The second series of frames involves the curious play of a ball, which despite the subject's best efforts defies the anticipated motion. It is the artificial tilting of the ground plane which makes the irrational seem reasonable to the viewer. The distorted perspective supports the viewer's concept of normalcy although reality would render these concepts unfeasible.

## IN OPPOSITION

. . . coming back to present-day preoccupations he felt suddenly uneasy about the tortoise. It was still lying absolutely motionless. He touched it; it was dead. Accustomed no doubt to a sedentary life, a modest existence spent in the shelter of its humble carapace, it had not been able to bear the dazzling luxury imposed upon it, the glittering cape in which it had been clad, the precious stones which had been used to decorate its shell like a jewelled ciborium.

Joris-Karl Huysmans, *Against Nature*<sup>1</sup>



FIGURE 52 . Installation space . IN OPPOSITION.

FIGURE 57 A-R . Page 62 . Time lapsed screen captures  
. IN OPPOSITION.



FIGURE 53-56 . Local Tree Conditions . Cambridge Ontario, Canada . 2005.

FIGURE 58 . Page 63 . Local Tree Conditions . Cambridge Ontario, Canada . 2005.

#### WATER FOUNTAINS VS RAIN

One need not turn their head, the entire scene occurs within a two metre field of vision.

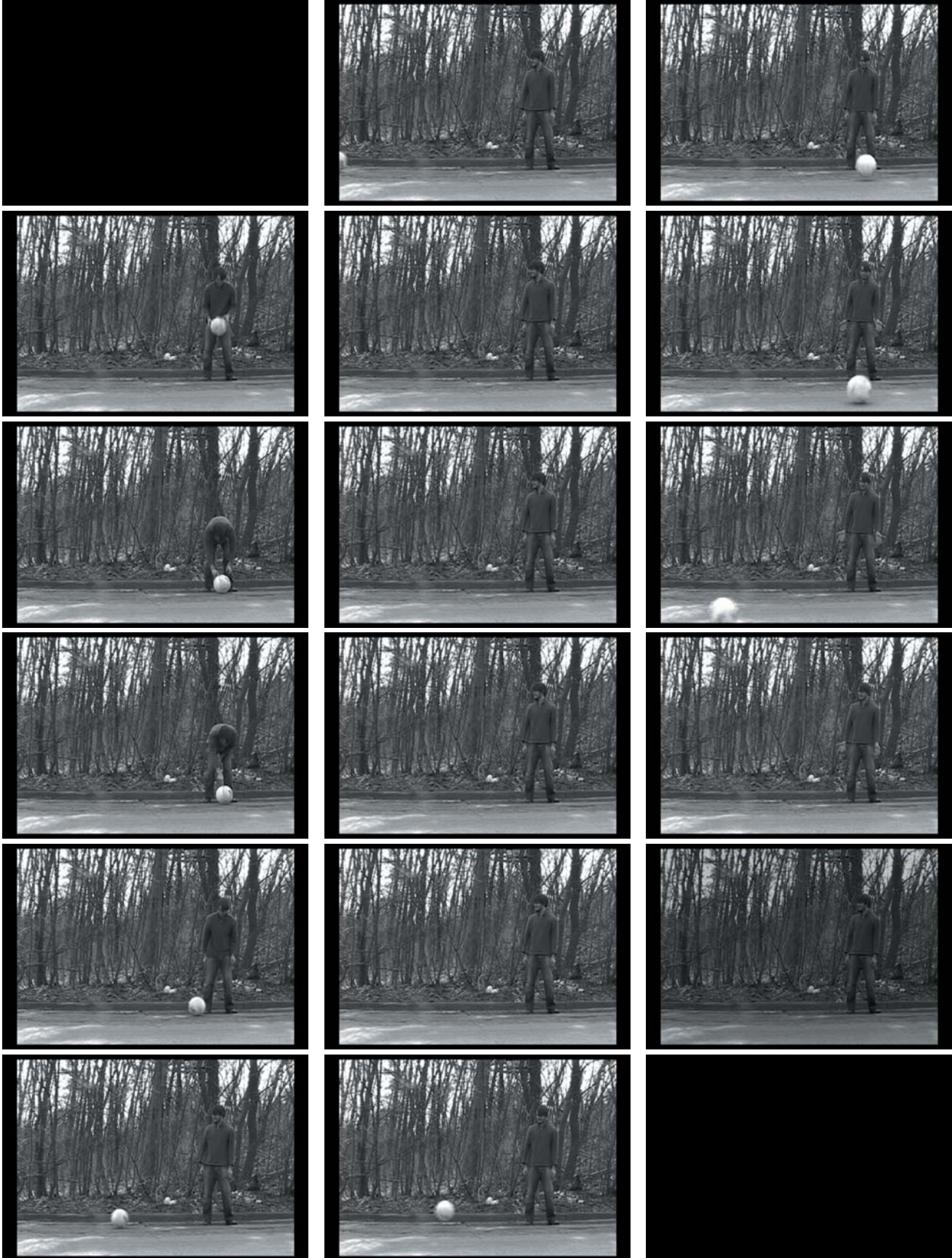
The truck pulls up on the side of the road. The barrel attached to the back clearly states its purpose: water only.

The driver starts the pump and proceeds to act as attendant to the hose, watering the flower patch planted in the island that forks the road. The pavement, a dark grey, has not dried from the rain only just fallen. The clouds hang heavy; the sky, overcast, matches the ground. Set amidst the painted gardens sits a large fountain which rivals the scale of the streets that surround the island on all sides. The water jets push their way to the sky and, having made it so far, inevitably flop, exhausted, into the pool that gathers below.

The attendant has only just finished as the rain begins to drizzle again. Tickling the fountain springs, the water finds a new obstacle. Water begins to pour from the clouds, battling above eye level, pushing from both directions, in the middle of the sky.

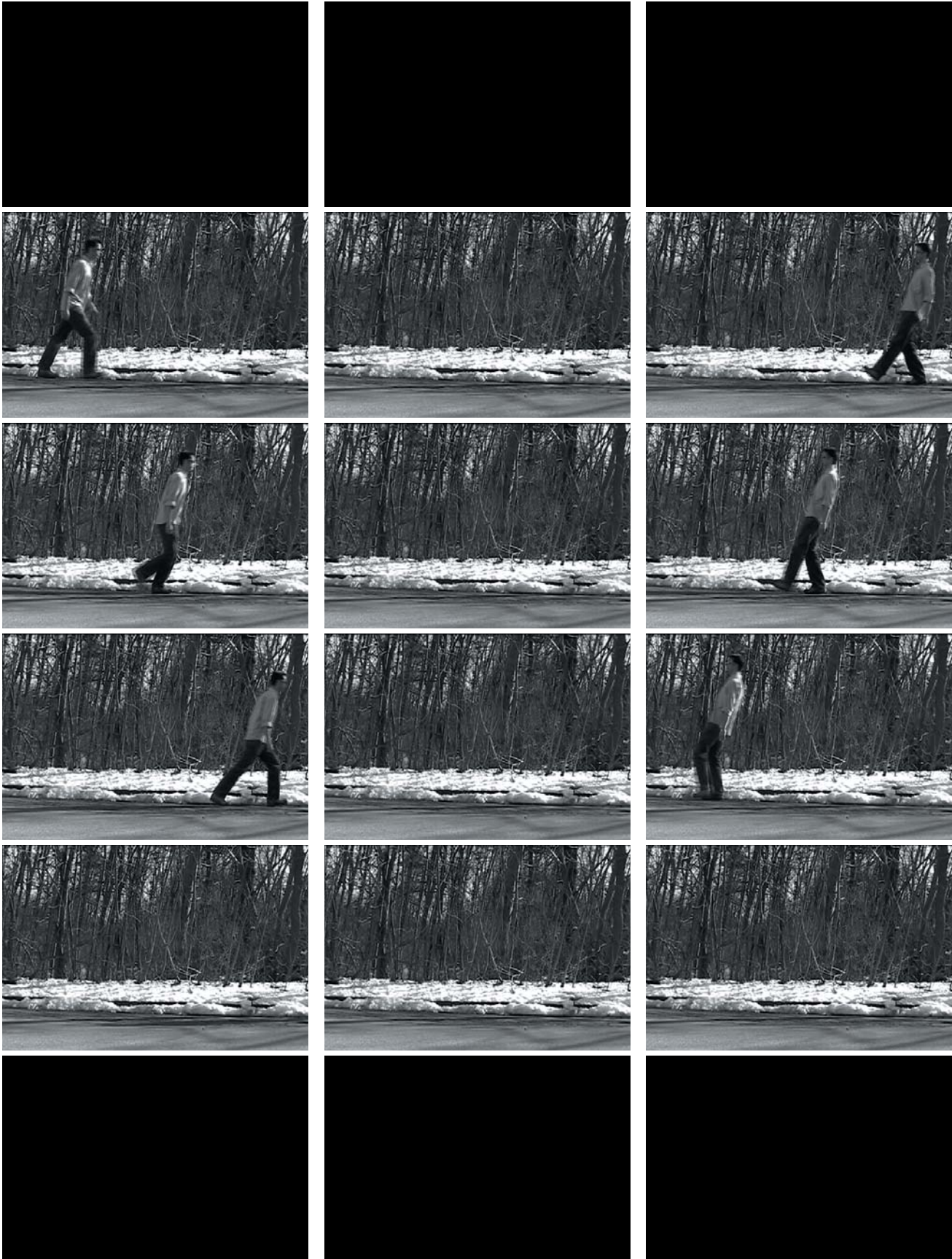












## THE MAGIC KINGDOM

Trees do not simply grow on the Walt Disney World grounds, they are orchestrated.

The significance of the three largest trees at Walt Disney World involves their conception. The first, a giant banyan, which the employees refer to as the “*Disneyodendron eximus*” or the “extraordinary Disney tree”, is completely fabricated. Weighing upwards of 200 tons, the tree structure begins with concrete roots which travel 42 feet into the earth. The crown is 90 feet in diameter, made up of over 600 meticulously placed branches covered with 800,000 vinyl leaves and flowers.<sup>2</sup> The tree is home to the Swiss Family Robinson Treehouse, a re-creation of the set of the 1960’s film.

The story, written in 1813 by Johann Wyss, was itself a re-creation of the classic Robinson Crusoe legend, in which, shipwrecked and stranded on a deserted island, the Swiss Family Robinson are forced to create an existence in nature. Using available resources, the family is able to build themselves a home or fortress in the bough of a tree and live a fulfilling life despite the constant challenges posed to them by their hostile environment.

On the Disney grounds the tree has become a testament to the Disney Imagineers’ similar achievement of authority over their surroundings. Technology usurping nature and its shortcomings creates what Stephen Fjellman refers to as a “fake real” construction<sup>3</sup>, or a perfected replacement of a naturally occurring phenomenon which can now be controlled and adapted to respond predictably.

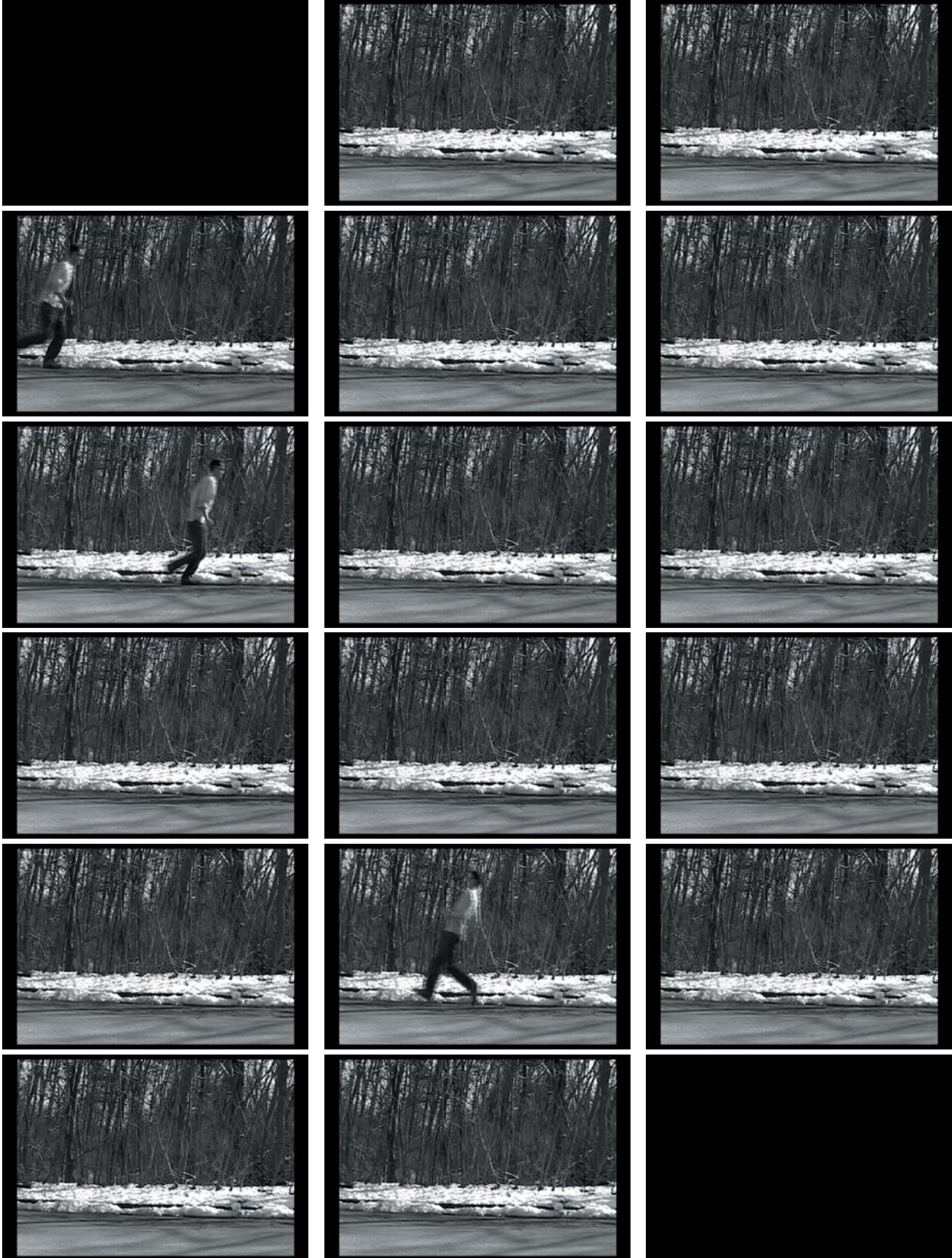
Disney is characterized by their desire to control all contingencies with innovative technologies that leave nothing to chance. In a place that sells image as a commodity, the manipulation of appearance and illusion is necessary. The Magic Kingdom itself was built 14 feet above ground level to make way for an intricate underground network of “utilidors” above the exposed water table of the swamp land. These expansive utility corridors were deemed necessary to hide the guts of the theme parks operations and provide channels for costumed “cast members” to safely move from the changerooms to their appropriately themed set without interrupting the integrity of other attractions. The earth required to create the enormous berm was landfill extracted to make way for the World Showcase Lagoon, a massive artificial body of water which allows guests to survey the skyline of the Magic Kingdom during their approach via monorail.

In true Disney fashion, the tree house attempts to hide its counterfeit apparatus, the branches carefully camouflaged with spanish moss and green patina painted onto the structure to resemble lichen. Birds fly overhead while bird sounds are played from speakers hiding under planted brush.

## EXPANSION

With a tradition of expanding the limits of the art of artifice, Walt Disney World is anything but static. Disney recently







trumped their efforts at the Swiss Family Robinson Tree with the erection of the Tree of Life in 1998. The structure is the centerpiece of Animal Kingdom, a new 500 acre theme park situated west of EPCOT. The tree boasts a height of 145 feet and a trunk width of 50 feet, 170 feet at its root base. This width is necessary to house the 430 seat underground theatre built at its foundations.<sup>4</sup>

Although anything but organic, the trees engineers have equipped the main branches (to which all other secondary, tertiary and end branches attach) with expansion joints, which allow the limbs to sway realistically in the wind.

#### A COUNTERPART

“The Disney strategy is to juxtapose the real and the fantastic, surrounding us with this mix until it becomes difficult to tell which is which. A kind of euphoric disorientation is supposed to set in as we progressively accept the Disney definition of things. We are asked to submit to a willful suspension of disbelief in the ostensible interest of a complete entertainment experience.”<sup>5</sup>

Stephen Fjellman, *Vinyl Leaves*

The Liberty Tree, in contrast to both the Swiss Family Robinson Tree and the Tree of Life, is a natural tree, living by means of fabricated circumstances. The tree was scouted and chosen from among those growing on the Walt Disney World grounds. It was to be the counterpart to the Liberty Bell replica, set within Liberty Square. At 40 feet tall and 60 feet wide, the Liberty Tree is the largest living thing in the Magic Kingdom.<sup>6</sup>

Due to its size and weight, transplanting the tree required that holes be drilled into the strongest section of its trunk. These holes were fitted with dowels which were then used to hoist the tree by crane to its intended site. When in place, the dowels were removed and replaced with the original wood plugs. After some time, however, it became apparent that the wood plugs had become contaminated and had caused a portion of the interior of the tree to rot. To save the tree, the diseased section of the trunk was cleaned out and filled with cement, and a *Quercus virginiana* was grafted to the base of its trunk as a life support system.<sup>7</sup>

The tree is now proudly displayed in its final resting grounds opposite the Hall of Presidents, one of the original Walt Disney World themepark attractions and home to a host of Audio-Animatronic replicas of the presidents of the United States. The figures are used to perform composite speeches rearranged and pieced together to form a Disney account of American history focused on extolling the benefits of the U.S. Constitution. Much like the Liberty Tree, the figures at work here represent an image of what Imagineers term, “Disney realism”<sup>8</sup>, where they are able to include desirable features and leave out those elements of reality deemed to be negative.

Walt Disney originally conceived of the Audio-Animatronic figures to replace actors in the live action shows which operate hourly throughout the park. Actors required breaks and

FIGURE 61 A-F . Time lapsed screen captures . IN OPPOSITION.



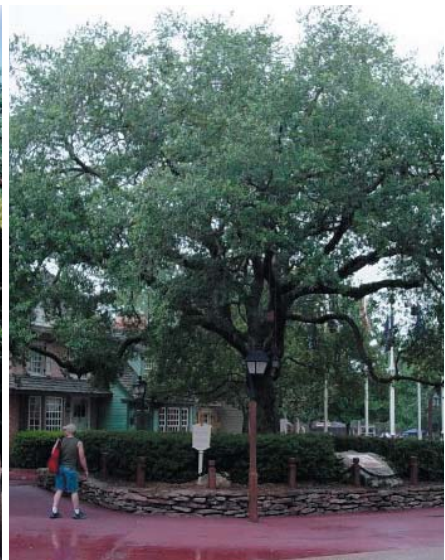
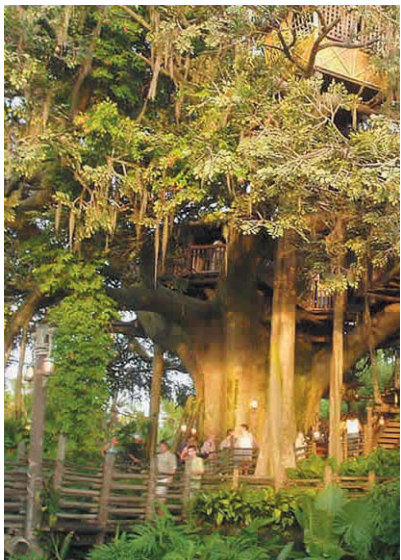
FIGURE 62 . Left . The Swiss Family Robinson Treehouse

FIGURE 63 . Centre . The Tree of Life . The centerpiece of the Walt Disney World Animal Kingdom.

FIGURE 64 . Right . The Liberty Tree.

wages, but more importantly, their performance quality was unpredictable. Audio-Animatronic figures were programmed to be consistent and act according to prescribed Disney standards.

In a place where control is necessary to maintain an elaborate illusion of perfection, safety and security, that which cannot be controlled can be replaced. Perhaps the novelty of the Liberty Tree is that it is indeed alive. Set amidst this meticulously planned, technologically engineered reality, the shell of a tree is used as a façade to mask its inability to adapt to the desires of human intervention. Its value, in opposition to the Swiss Family Robinson Tree and the Tree of Life, is based on the fallacy that it is indeed natural.





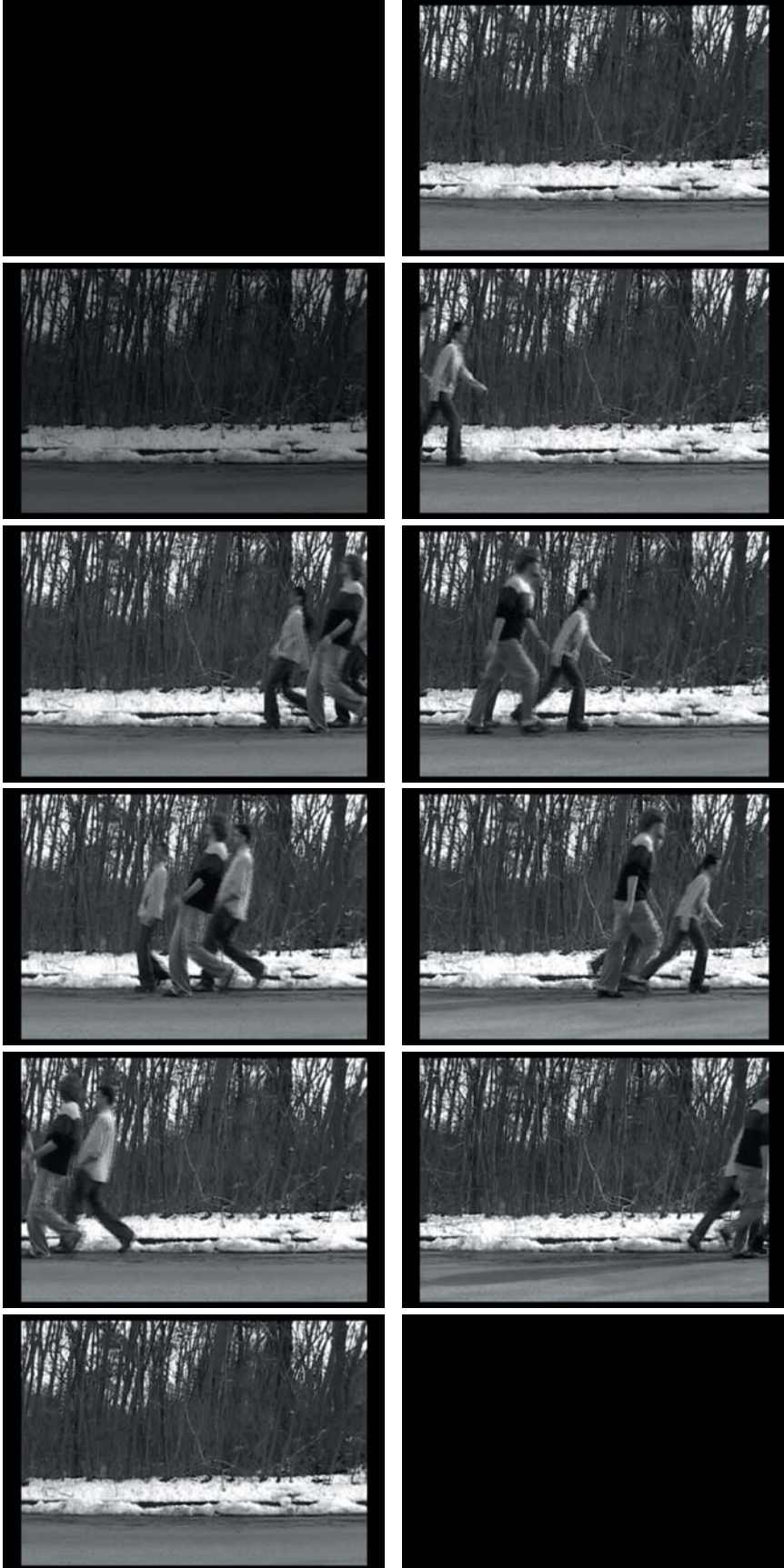


FIGURE 65 A-L . Time lapsed screen captures .  
IN OPPOSITION.

## NEVERLAND, UAE

“Nakheel is in the business of being bold.”

Nakheel Corporate Video<sup>9</sup>



FIGURE 66 . The Palm Deira .

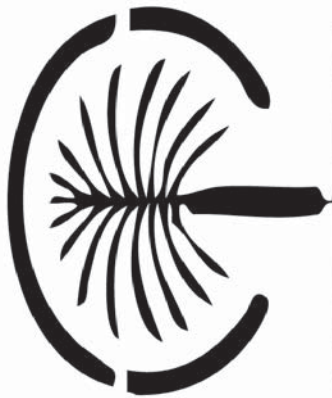


FIGURE 67 . The Palm Jumeirah .



FIGURE 68 . The Palm Jebel Ali .

They are building a city in the Gulf of Arabia, and it has begun by dislocating millions of tons of land into the ocean. Untroubled by the limits of existing natural land forms, General Sheikh Mohammed bin Rashid Al Maktoum, crown Prince of Dubai, has both instigated and approved the creation of a group of artificial islands, covered by an extravagant building development proposal.

Land is quickly emerging out of the water aided by a tireless labour force working shifts around the clock, a fleet of trucks virtually transporting mountains from quarries on the outskirts of the UAE, and the combined talents of the countless engineers who have been imported from around the world to wrap their heads around the seemingly absurd dreams of an ambitious coast hungry city set amidst the desert. Blissfully uninhibited by the boundaries of budget, building code and of nature itself, Dubai drafts out a new coastline merely constrained by the limits of the imagination.

There are four artificial island developments currently under construction: three palms, The Jumeriah, The Jebel Ali, and the Palm Deira, all of which are situated within kilometres of one another, and The World, a collection of 300 islands which form a miniature reconstruction of the five continents. Visible from space satellites, the land forms, chosen for their maximization of potential beach front property, mark a decided departure from the limits of the possible into the realm of the impossible.

## FISHING

The Palms, a collection of the world's largest man made islands, are part of an elaborate scheme to make Dubai into the destination of choice for wealthy tourists from around the globe. The city, once a collection of fishing hamlets scattered along the coast, attempted to bring in commerce from the surrounding regions with flexible attitudes and low taxes. Soon Dubai had become a successful trading port attracting business from nearby India and Iran. The ambitions of the city shifted rapidly in scale however, with the discovery of oil in the region in 1966, and the formation of the federation of the United Arab Emirates in 1971, both of which brought the region worldwide attention.<sup>10</sup>

Suspicious of the finite limits of their natural oil reserves, the ruling family began attempting to diversify the economy of the region while using their oil profits to build the foundations for a global hub, investing in transportation networks, infrastructure, schools, and hospitals. In the forefront of this building boom, however, was the ambition for tourism, tempting travelers with unprecedented decadence and bizarrely scaled attractions being constructed to form a virtual Neverland of fantasy and possibility in the desert.



FIGURE 69 A-P . Time lapsed screen captures . IN OPPOSITION.





FIGURE 70 . Dubai Waterfront Project . Shown here with the Palm Jumeirah, the scale of the Dubai Waterfront Project will dwarf even its massive neighbours.

## MEGALOPHOBIA

“Megalophobia is the irrational fear of large objects. In some cases megalophobia is manifested as a fear of objects that are larger than they should be . . . in most cases megalophobia is simply a fear of objects significantly larger than one’s self. There is no standard measure of when something has become large enough to unsettle a person suffering from megalophobia, it is entirely subjective and unique to the individual sufferer . . .”<sup>11</sup>

## PALMS

The Palm, Deira is the third and largest of the three palms under construction. Similar to the two previous palms, the Deira will be built in the shape of a palm tree, including a trunk, 41 palm fronds and a crescent shaped breakwater which encircles the entire development. Spanning a length of 14.3 kilometres from base of trunk to tip, and 8.5 kilometres in width between the flanking crescent arms, the Palm will add an extra 400 kilometres of shoreline to the Dubai coast, soon to be flooded by close to 8000 private villas, hotels, several marinas, restaurants, shopping malls, spas, sporting facilities and the largest manmade underwater scuba paradise ever constructed.<sup>12</sup>

Nakheel, the land developer responsible for many of Dubai’s large scale projects, (including the Palms), has much more planned for the near future. Planning is already underway for the epic Dubai waterfront project, which will add the equivalent of another district to the city, built up out of the water much like the Palms.

Inland, Nakheel recently completed the first phase of the Jumeriah Islands project. As their website declares with all the pride boasted by a circus ringmaster, “Who else but Nakheel would contemplate moving some three million cubic metres of seawater in a dynamic water-flow motion from the sea with underground pipes to create a beautiful inland residential development?”<sup>13</sup> In August 2005, the first residents moved into the world’s first man-made inland island community.

FIGURE 70 A-F . Time lapsed screen captures . IN OPPOSITION.





FIGURE 71-73 . The Palm Jumeirah Land Construction . Time lapsed aerial views of the second Palm island complex.

FIGURE 75 . Page 77 . The Palm Deira . Plan of the final and largest Palm development proposal accepted for the Dubai waterfront.



FIGURE 74 A-X . Time lapsed screen captures . IN OPPOSITION.





- Urban Center
- Town Center
- Village Center
- Neighborhood Center
  
- Urban Office
- Wharfage/Industrial
- Hotel : Urban
- Hotel : Resort
  
- Boulevard Mixed Use
- Boulevard Residential
- Lagoon Mixed Used
- Lagoon Residential
- Urban Residential
- Mid-Rise Residential
- Townhome
- Villa
  
- Civic Center
- Office Space/Parks
- Rip-Wrap/Bulkhead
- Beach

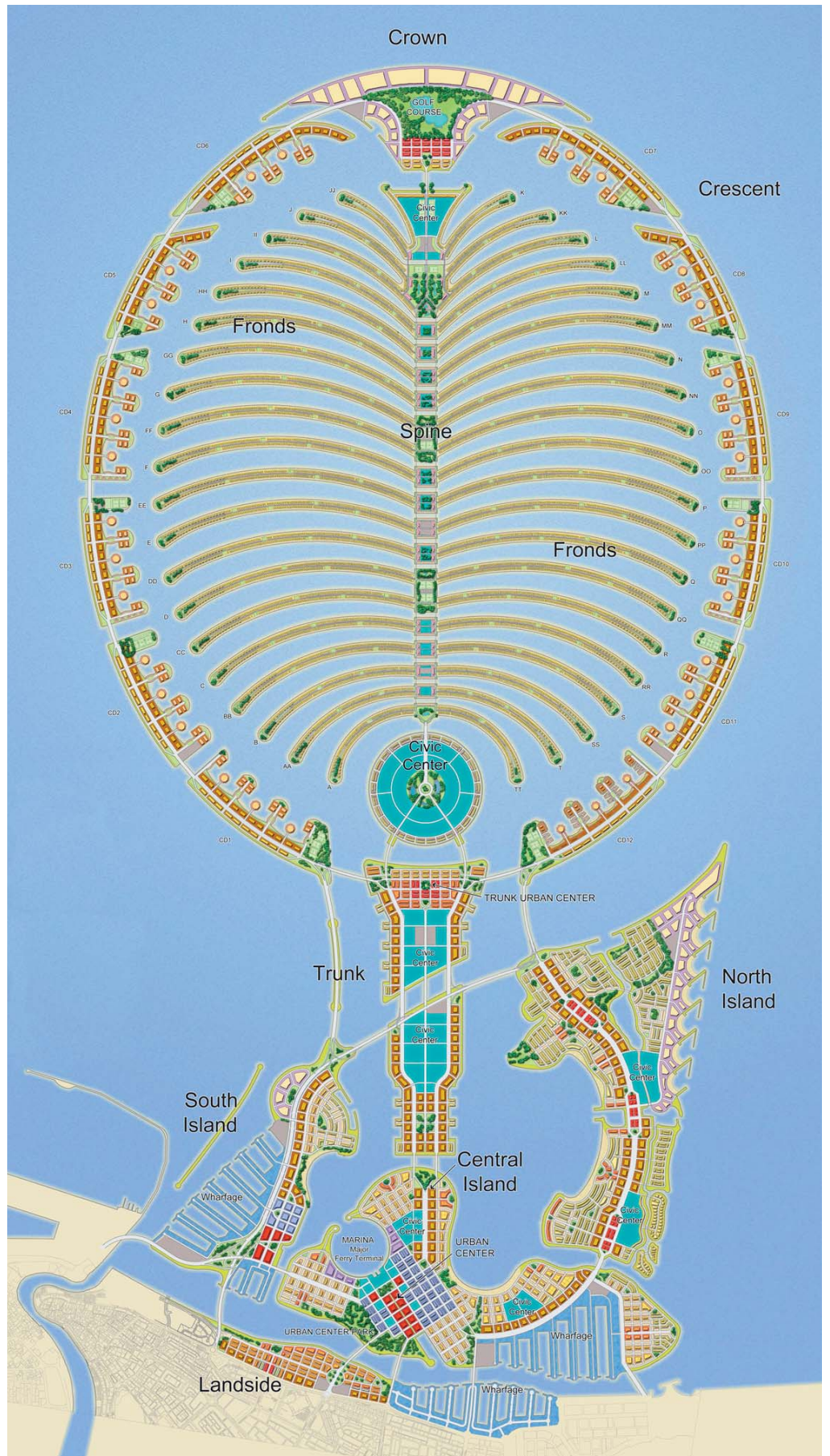
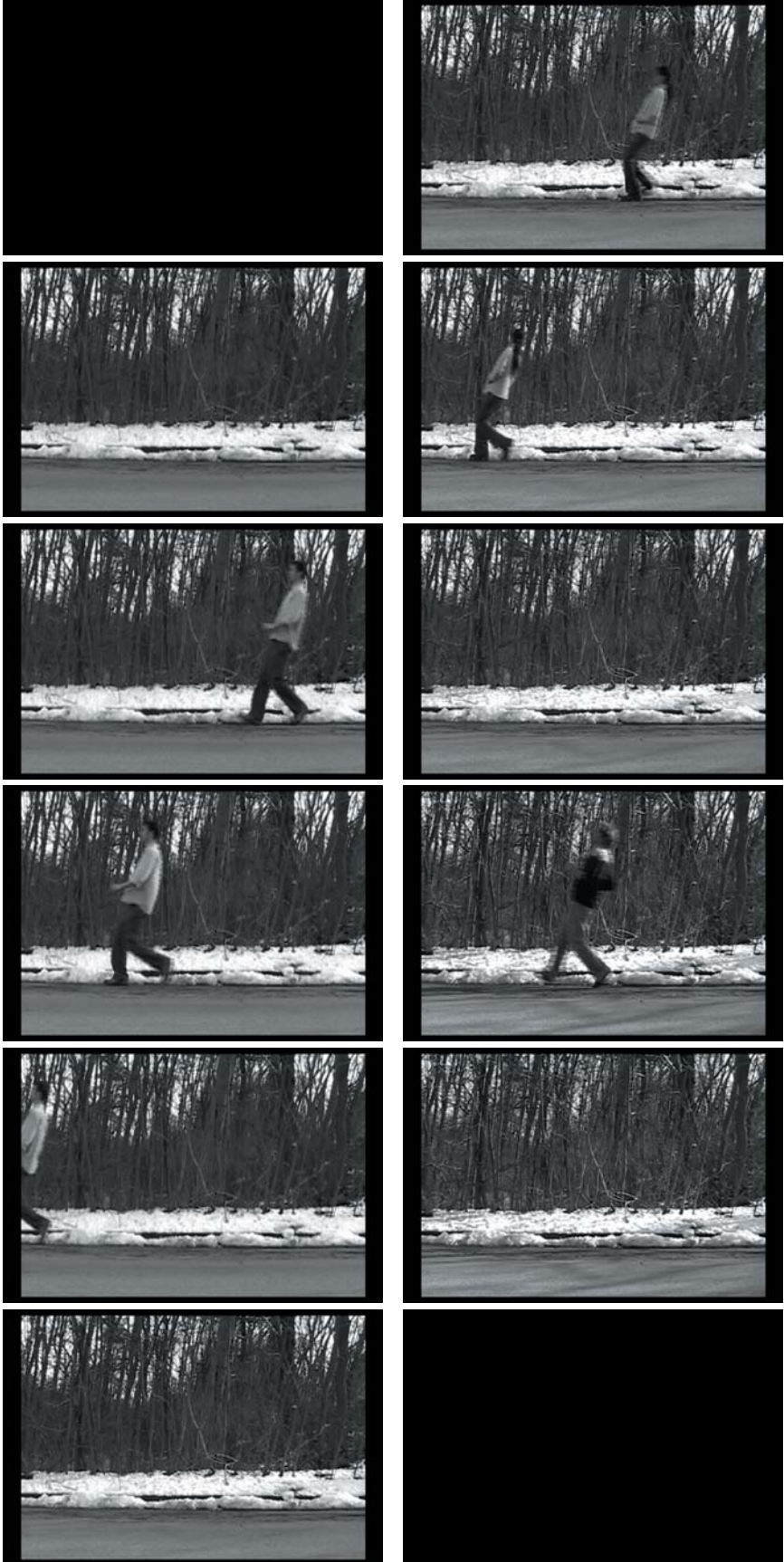


FIGURE 76 A-L . Time lapsed screen captures .  
IN OPPOSITION.





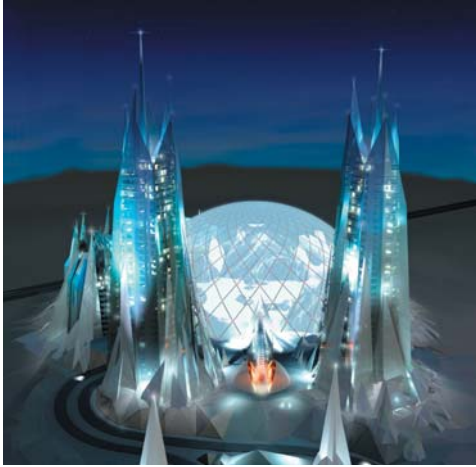


FIGURE 77 . Top . Snowdome exterior rendering.

FIGURE 78 . Above . Site of the Snowdome.

FIGURE 79 . Below . Snowdome interior rendering . Winter wonderland proposed for the Dubai desert.

## SNOWDOME

The 32-Group is also building an elaborate stage set in Dubai. Reminiscent of the bubble domes used to inhabit hostile interplanetary conditions of classic science fiction movies, construction has begun on a project they call the Snowdome. In 1998, the 32-Group conducted studies that found that during the “hot season”, residents and tourists were encouraged to spend their holidays in cooler climates. As a response, they decided it would be viable to begin development of their most ambitious project to date, an indoor winter wonderland set within a glass dome, surrounded by residential towers sculpted to resemble ice crystals.

The dome, when completed, will be the largest free standing dome structure in the world, reaching a diameter of 220 metres and a height of 75 metres at its centre. Featuring a rotating ski deck and a full sized mountain slope, visitors will ski on real snow in a controlled ambient temperature of 10°C within the glass dome.<sup>14</sup>

The Snowdome is situated within the Dubailand theme park grounds. The grounds span a 280 km<sup>2</sup> area, which comprises a number of entertainment facilities including water parks, golf courses, a motor-sports circuit, various resorts, hotels and spas. An extensive downtown area will be home to the Mall of Arabia, the worlds largest mall, and the Great Dubai Wheel; the worlds largest observation wheel, which, similar in program to the London Eye, will allow visitors to survey the entire park from within pods that cycle through the sky on enormous spokes.<sup>15</sup>

“We are building one of the world’s finest locations to live in, to have fun and to enjoy and celebrate the good things of life,” stated Salem bin Dasmal, Chief Executive Officer of Dubailand.<sup>16</sup>





FIGURE 80 A-F . Left . Time lapsed screen captures .  
IN OPPOSITION.



FIGURE 81 . Snowdome groundbreaking ceremony . Salem Bin Dasmal, CEO Dubailand and Amir Pishyar, 32 Group Vice President of Marketing and Sales celebrate the commencement of Snowdome construction . February 2006.

## DEFINING NATURE

By defying climate and the limits of nature, Dubai has begun to change the map of the world, manipulating their surroundings to bend to their projections of the future. It is perhaps both the relentless control over the environment and the passion for excess which are so vividly flaunted in Dubai that has captivated and seduced the imagination of the world media.

In a world where people travel across the globe to be amazed by scale and excess as much as culture, spectacle is considered a commodity. Architecture is consumed, conceived in the eyes of marketing spin-doctors as a potential draw for tourist dollars.

The propaganda of rulers and a manifestation of power and success, architecture continues to be used to express the ambition of a nation attempting to compete in a global economy. As Sultan Ahmed bin Sulayem, Executive Chairman of Nakheel, revealed in his recent comments regarding Nakheel's collaboration with the Trump Organization:

Like The Palm Jumeirah, the Trump International Hotel & Tower will be a powerful symbol of Dubai's intent to become a 21st century showcase of daring and breathtaking pieces of architecture. Once complete, it will be an inspirational landmark, an icon of Dubai and a representation of the Middle East: prosperous, dynamic and successful.<sup>17</sup>

Relying on architectural pursuits of increasing decadence and technological innovation, Dubai wishes to situate itself in the forefront of design and engineering advancements; creating a list of artificial marvels which strive to define the boundaries of the human imagination while creating icons of vision and control which can compete for attention on a global stage. Motivated by the public's craving for "more" and spurred on by enviable titles of the World's Largest, Longest, and Tallest, the fantasies are becoming gradually more consumptive, championing defiance of a natural environment which we find honour in taming.

Humans have always questioned the extent to which our resources could be pushed, the degree to which we could fashion our own reality. Have our technical capabilities merely caught up with our fantasies? And now that these desires have been set loose, are we not responsible for censoring our potentially destructive whims?

There is no turning back in Dubai; construction is constant and fearless. "We are drawing the idea in the evening and we begin construction the next day . . .", Ali Mansour, lead marine engineer for the Palm Jebel Ali explains, "We won't stop, nothing will hold us back, we are always progressing. If we have a problem here we will move to another location, use a different method, a different technique."<sup>18</sup>

If the true test of success is progress, they press on, higher, bigger, faster.



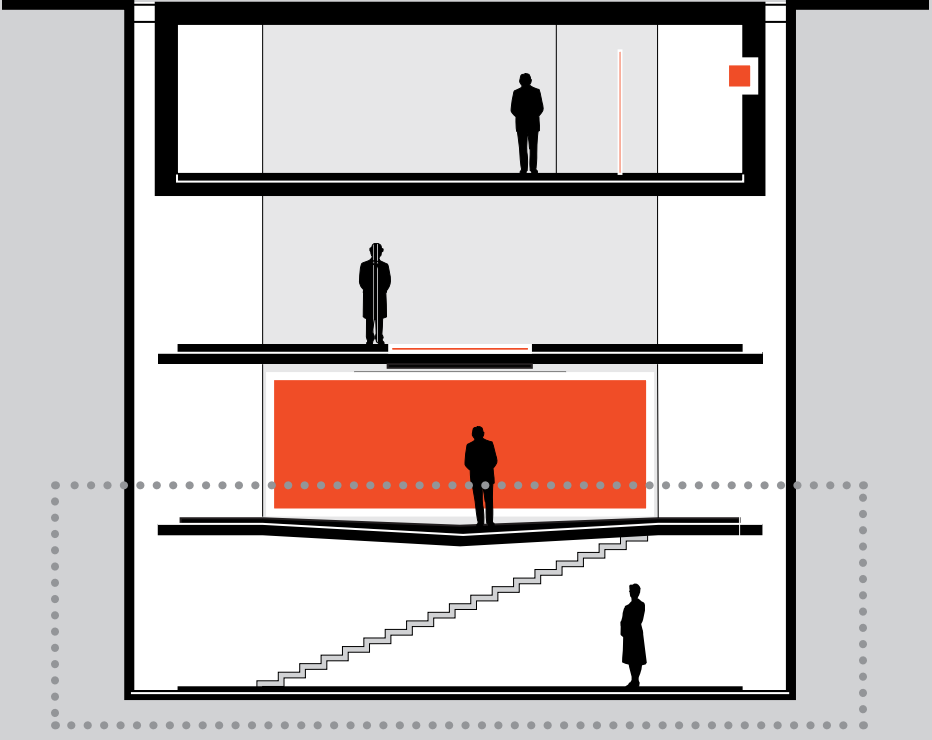
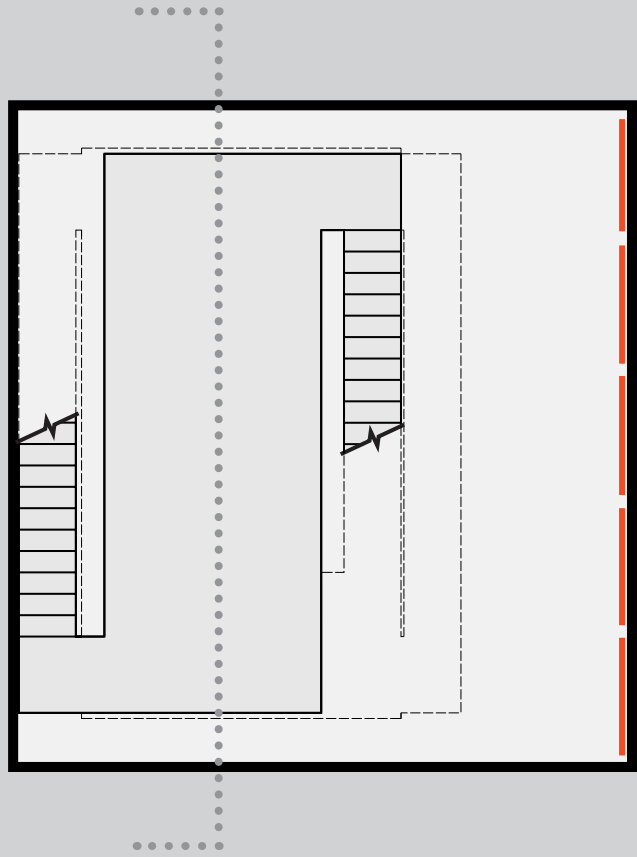


FIGURE 82 . Floor plan of TEETERING TOWER installation space.

FIGURE 83 . Longitudinal section of TEETERING TOWER installation space.

The wall beyond shivers. Walking beneath the structure, its supports forgotten, the box hovers heavy above the stilted ground. Entering the gallery, the chamber rises to reveal an alarming depth. Blocks multiply and then contract, pushing and pulling themselves from within the screen.

Beginning the ascent, turning to face that which was once concealed, walking within the wall floating underground.

# TEETERING TOWER

GALLERY4

## THE TEETERING TOWER

*THE TEETERING TOWER is the title of the final video piece. Simultaneously tracking three games of Jenga, the screen is divided into twenty five portals which expand and contract in accordance with the whim of the architect. The towers are meticulously manipulated by a set of hands which poke and prod the blocks in an effort to multiply the portals and fill the screen. The game, derived from the Swahili word for “build”, has few rules and one goal. Players attempt to remove blocks from the bottom of the structure and put them on top, working together and against one another to build the highest tower with the limited amount of blocks. What was once the foundation becomes mass, mass becomes cornerstone, swapping pieces in an intricate network of exporting and importing, a three dimensional mapping of resource trading. As all portals appear, a subtle movement sweeps the structure, cracks begin to form, the tower sways from side to side, the screen shakes, each sector’s dependence now becomes known. The fragility of the system is predictable, the game, finite.*

## TEETERING TOWER

Dream was the codeword for that ache for transcendence, for moving up and moving on, which had been sanctioned by the republic as a democratic right. As the grave voice-over in a TV ad for an investment company put it, "Because Americans want to succeed, not just survive . . ." Success here didn't merely mean moving from position A to a more comfortable berth at B; it was, rather, a quality endemic to your personality and your national character - a peculiarly American state of being, in which you were continuously aspiring, striving, becoming. To dream was to keep faith with the idea that there was always a new frontier, a storey at least one floor above that on which you were now living.

Jonathan Raban, *Hunting Mister Heartbreak*<sup>1</sup>





FIGURE 84 . Proposed installation space . TEETERING TOWER.

## EXPORTING DEFORESTATION

In 1998, China implemented a nation wide forestry ban conceived as a response to the large scale deforestation that was quickly sweeping the country.

China is the world's third largest consumer of timber, 40% of which is burned for use as energy. The remaining resource is divided amongst industrial purposes, primarily pulp and paper production, and lumber for construction. When domestic harvesting of trees was halted, these industries had to begin importing the goods from abroad in order to maintain their livelihood and the lifestyle of their consumers.

Importing huge quantities of raw material from surrounding countries, China is effectively exporting deforestation to those who continue to commodify their environment. Since the logging ban was implemented, China's worldwide timber imports have increased six fold and China's recent entrance into the World Trade Organization, a move which will cut tariffs on imported wood from 15-20% to 2-3%, is expected to provoke unprecedented increases in the near future.

## FOR SALE

“Currently calculations [of GDP] ignore the degradation of the natural resource base and view the sales of non-renewable resources entirely as income. A better way must be found to measure the prosperity and progress of mankind.”

Barber Conable, Former president of the World Bank<sup>2</sup>

Our economic system is a human construction which champions profit above all else. Trading resources for invisible sums stored in virtual banks, we have commodified our environment based on our perceived value of objects which we have in fact appropriated for our benefit. All resources are considered potential income, and only realize their economic benefit through their consumption. It is time to re-evaluate our system of measuring wealth in an attempt to bring some semblance of balance to a system which considers the long term care of its environment as merely an economic drain.

Responsibility to the collective good has been replaced by loyalty to the pursuit of profit. While some governments see merit in preserving the public commons, others are only too eager to subsidize the destruction of their environment through supporting industries which leave a trail of waste in their wake in exchange for premature short term gains. Those nations who evade the direct consequences of depleting their own natural resources are only too happy to import goods from adjacent countries. The world's resources, once perceived as limitless, are now understood to be finite; goods which pass borders are not disassociated with their origin, they carry with them the consequences of their extraction. Ultimately, each import is inextricably linked to a corresponding export.

The global network that we have constructed has served to link trade partners across the world to one another. By extension, a

FIGURE 85 . Jenga instructions . Robert Grebler .  
Instructions included with the original Irwin game.

**Any number may play Jenga®. For lively interaction, the optimum number of players is 2 to 6, but solitaire play is equally challenging.**

**AGES 5 TO ADULT.**

**MASTER JENGA® I, II, III, IV RULES**

Please note that there are three different colors of bricks in your Jenga® set. For a more challenging game, construct your starting tower such that one brick of each color is in each level of the tower.

To play Master Jenga® I, the players must maintain the relationship of placing one of each color brick in each level built as the tower rises.

You can see that this version significantly increases the difficulty and intensity of the game. However, even greater challenge awaits daring players.

To play Master Jenga® II, use the same rules but in replacing the bricks on the tower, allow only one color per level; that is after the first brick is placed on the new top layer, the two succeeding bricks must be of the same color.

To play Master Jenga® III, again use the same rules but add the requirement that the succeeding color on the next top layer must differ from the colors that preceded it.

To play Master Jenga® IV, add the requirement that the tower must be built in sequentially layered colors and that bricks must be removed and added to the top of the tower in the same color order.

*Good Luck!*

**EQUIPMENT**

Jenga® consists of 54 wooden blocks or "bricks".

**OBJECT**

The object of the game is to remove bricks from the tower and, by placing them on top of the tower, build it as high as possible, without causing the tower to collapse. The tower, starting with 18 layers, can grow to more than double in size.

**PREPARATION**

The starting tower must be constructed using all the bricks on a firm and level surface. The play area should afford each player enough room to move around without fear of disturbing the tower. A table top is a good play surface.

The tower is constructed by layering the bricks in groups of three. Each layer of three bricks is set at right angles to the layer above and below it.

**JENGA® RULES**

1. The player who first builds the tower begins the game by taking the first turn. The player who causes the tower to collapse must re-build it and start the next game.
2. Each player takes a turn in order. Only one brick may be removed in each turn.
3. Only one hand may touch the tower or individual bricks at any time. However, both hands can be used alternatively in any one turn.
4. The player is permitted to poke and touch any number of bricks before selecting the one he wishes to remove. A brick can be pushed back into place and another selected, so long as the first does not lose contact with the tower.
5. If other bricks are pushed out of alignment, they may be re-aligned before another brick is attempted or the next turn is taken. However, if the effort to re-align the tower causes it to fall, then the player attempting the re-alignment is declared the loser.
6. Bricks may be taken from any layer in the tower except the second-to-top (or penultimate layer) when the top layer has not been completed.
7. Once a brick has been removed from the tower it must be placed on top of the tower at right angles to the penultimate layer.
8. The top layer must always have a full set of three bricks before a new top layer is started.
9. No part of the player's body may touch the tower except the arm from the elbow to the tips of the fingers.
10. No artificial aids (eg., sticks) can be used to remove a brick.
11. A player's turn is completed 10 seconds after placing the brick on the tower or when the next player has touched the tower.

**TOURNAMENT VERSION**

The game can be played more competitively as a tournament among three or more players. When a player causes the tower to collapse, that player must retire from the tournament. The winner of the tournament is, therefore, the only player not to collapse the tower.

**ADVANCED RULES & PLAY**

Once you have mastered the regular rules of play for Jenga, you may wish to renew the challenge. In the advanced version of Jenga, players are only allowed to touch one block of the tower at a time and may not touch or steady the tower in any other manner. This challenge replaces rule number 9 in regular play.

©1985 ROBERT GREBLER

P/N 7770002



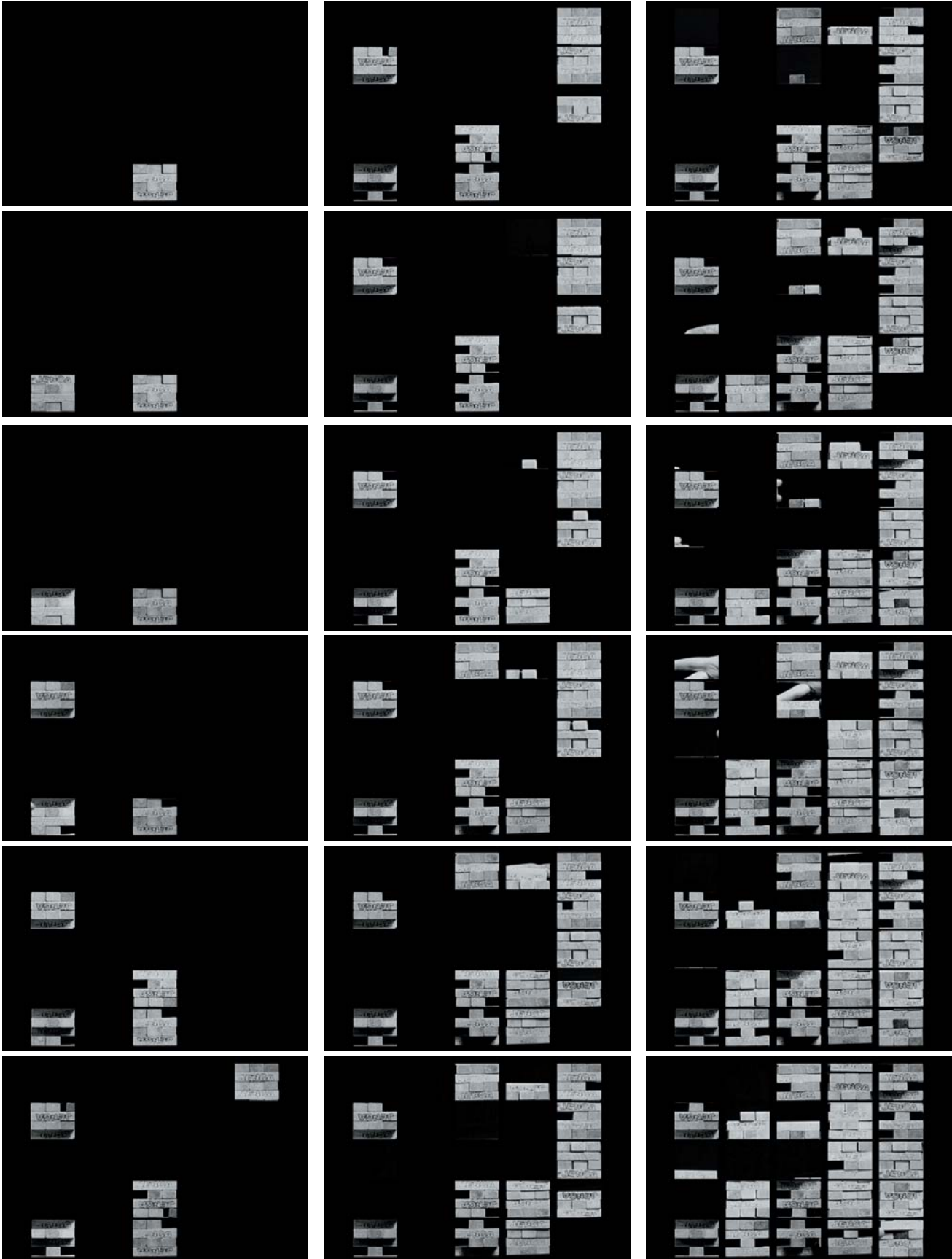
FIGURE 86 . Above . Obsolete technical garbage exported to China from the West.

FIGURE 87 . Below . Rabbits imported into the Australian ecosystem prove detrimental to existing vegetation. Exponential growth has aggravated the problem.

reckless disregard for the impact of any region's actions along this network is a dangerous practice. Depleting resources in one region, or new consumer practices adopted in another, will inevitably affect the entire system in the future. The space between continents has become little more than a concept in light of the relative ease with which goods, plant and animal species, waste, as well as cultural attitudes, are traded across borders. The global impact of this flat landscape simply increases the necessity for adopting responsibility for actions whose consequences may cross borders just as easily.

In the now vast pool of the global collective where responsibility has been diffused by sheer numbers, it has become increasingly easy to abandon sustainable commerce in lieu of self interest. This behaviour is sadly deemed "rational" by many who believe that addressing the problems of conspicuous consumption, has more apparent consequences than reaping the benefits of entering into global competition to provide for the perpetuation of irresponsible lifestyle choices. Selling the public commons, or marketing a decadent attitude abroad has obvious and immediate monetary returns which easily translate through a universal concept of national wealth. Potential consequences to these transactions are unfortunately difficult to quantify as they are manifest in long term environmental repercussions whose cost far exceeds the short term profits garnered by their ruin.







## ORANGE COUNTY, CHINA

“At Orange County’s grand opening, visitors wore plastic booties over their shoes when they toured the model homes. Media covered the event. The U.S. and Canadian embassies were represented. Everyone dined on cheeseburgers from McDonald’s.”

Los Angeles Times, March 9, 2002<sup>3</sup>

SinoCEA, the Chinese development company, is importing the plan and design of the infamous Orange County to a region they have aptly named Jujun, China, a direct translation of the words “orange county”. Transplanting the stage set of an entire suburban community from Southern California to the rural fields of China, the developer is attempting to introduce to its home owners the authentic experience of American living. “Flown over fresh to Beijing”<sup>4</sup> brochures for the development declare “Real Villas, 100 percent American”.<sup>5</sup>

Boasted as the “first Chinese community entirely master-planned and designed by Americans”,<sup>6</sup> both the architect and interior designer have also been directly imported from Southern California. The villas are furnished with all the amenities of First World living: pool tables, wall sconces, barbeques, a bar and home theatre, all imported from the United States. The attempt is to reconstruct not only the North American suburb, but the decadent features popularized in Orange County: open floor plans, backyard pools, and big garages, one of each for everyone.

Less than ten miles from the site of the 2008 Olympic Games, the new Orange County is the first of many destinations in a rapid development scheme for the surrounding area. Already completed are two six lane superhighways which will serve to link the proposed American inspired developments.<sup>7</sup>

## NUMBERS

In 1979, The Chinese government implemented a fertility control policy which encouraged families to raise only one child. The law was conceived in an effort to control population growth, which was reaching alarming highs after years under the rule of Mao Zedong, a proponent of encouraging large families to breed many loyal followers.<sup>8</sup>

By 2001, the one child policy had succeeded in drastically cutting population inflation to a rate of 1.3% per year. However, the number of households had also grown disproportionately, recording an increase of 3.5% annually. This was due in part to a decrease in household size caused by fewer children, higher divorce rates, and a decline in multi-generational households.<sup>9</sup> In 1985, China’s average household consisted of 4.5 people. This number dropped to 3.5 people in 2000 and estimates project a further decrease in household size to 2.7 people by the year 2015. This translates into the need for a staggering 80 million homes in addition to those that would have been required otherwise, a demand exceeding the total number of existing homes in Russia.<sup>10</sup>

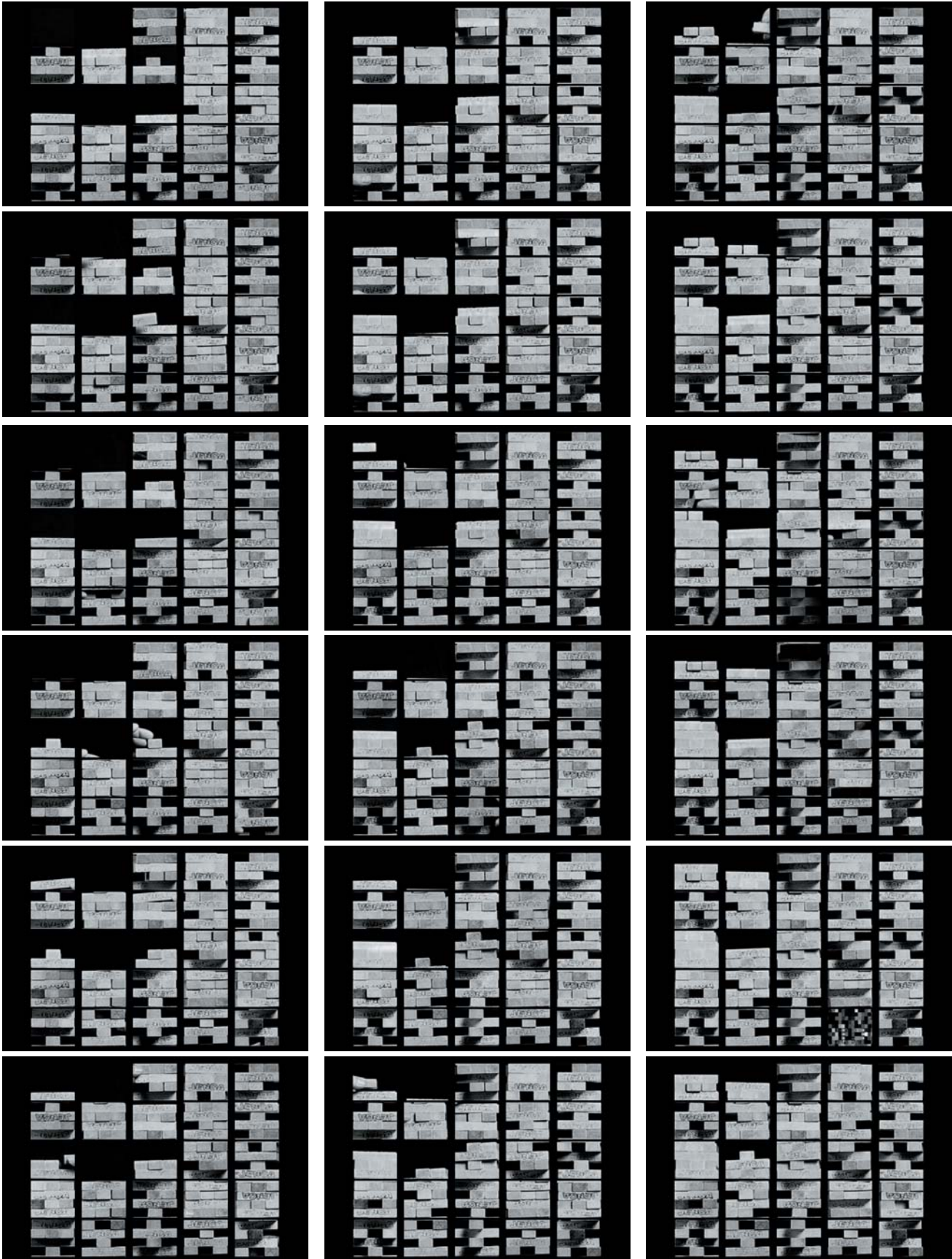




FIGURE 89 A-R . Left . Time lapsed screen captures .  
TEETERING TOWER.

FIGURE 90 . Below . Cell Phones #2 . Chris Jordan  
. Atlanta . 2005 . Intolerable Beauty Portraits of  
American Mass Consumption.

The great suburban build-out generated huge volumes of business. The farther apart things spread, the more cars were needed to link up the separate things, the more asphalt and cement were needed for roads, bridges, and parking lots . . . Each individual suburban house required its own washing machine, lawnmower, water meter, several television sets, telephones, air conditioners, swimming pools,, you name it. Certainly, many Americans became wealthy selling these things, while many more enjoyed good steady pay manufacturing them. In a culture with no other values, this could easily be construed as a good thing. Indeed, the relentless expansion of consumer goodies became increasingly identified with our national character as the American way of life . . . the end product of all this furious commerce-for-its-own-sake was a trashy and preposterous human habit with no future.

James Howard Kunstler, *The Geography of Nowhere*<sup>11</sup>



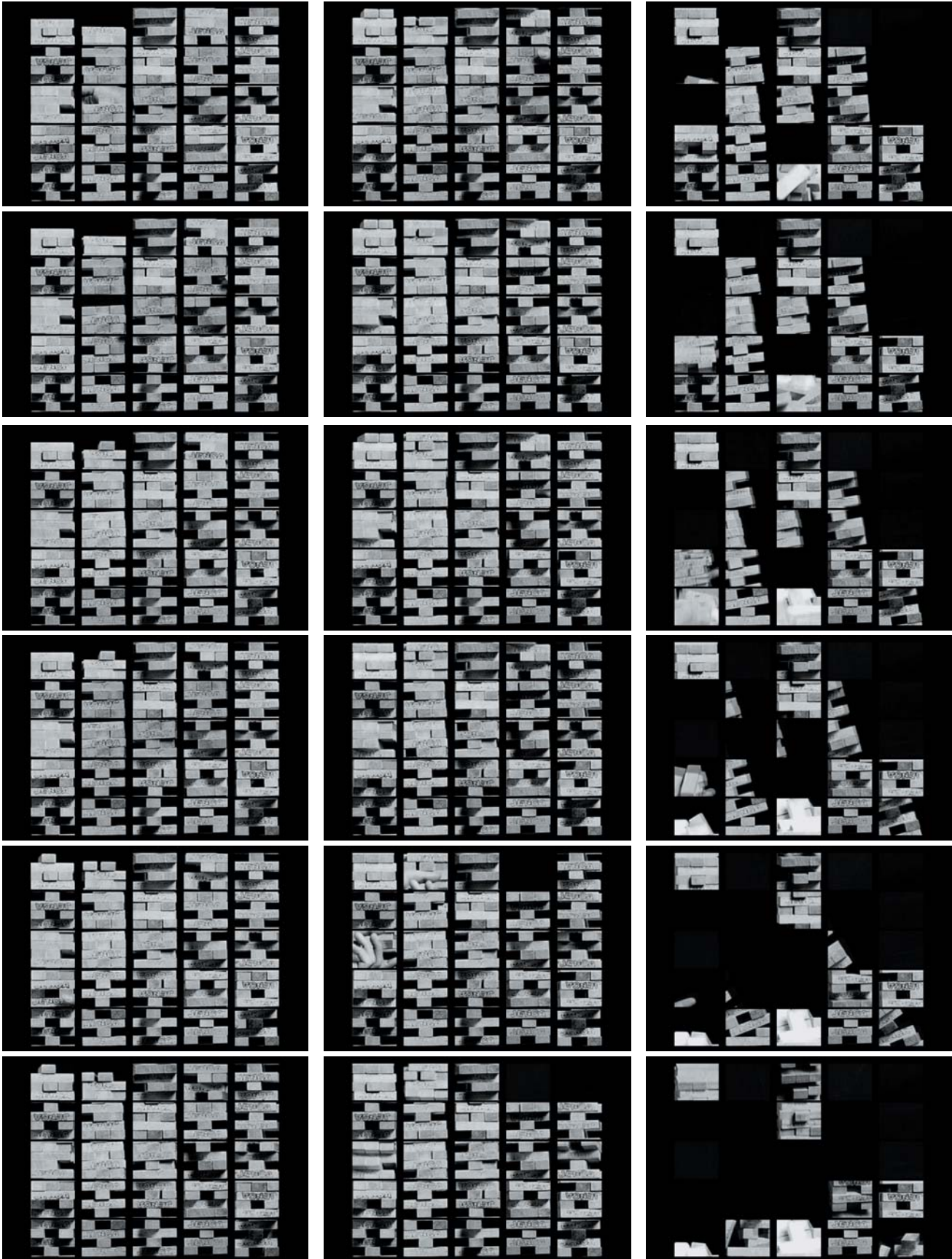






FIGURE 92 . Untitled . Robert Adams . Summer Nights Series . 1985.

FIGURE 91 A-R . Left . Time lapsed screen captures . TEETERING TOWER.

## EXPORTING FANTASY

In 1998, the Chinese government announced its plans for “housing reform”, which encouraged citizens to aspire to individual home ownership through accessible mortgages.<sup>12</sup> Although still merely a fantasy for most Chinese whose incomes amount to less than five hundred dollars a month,<sup>13</sup> the potential for economic growth in a booming housing market was staggering.

The U.S. National Association of Home Builders held its second international conference in China in 2001, anticipating the unprecedented business prospect of a market of 200 million potential customers for single family homes and related paraphernalia.<sup>14</sup> Fuelled by the prospect of turning 1.3 billion Chinese into what a CBS new report termed, “world-class consumers”,<sup>15</sup> American companies are among many competitors eager to tap this latent consumer resource, rallying for a piece of the next round of suburban build out.

Essentially exporting the First World fantasy manifested in material goods, North American industry has capitalized on China’s desire for “upgrading” its lifestyle, adopting America as its model. As the Los Angeles Times explains, the development in China is evidence of a dangerous trend in culture swapping:

What’s being built offers more than a window onto China’s booming housing construction market. It’s a recognition of cultural changes, fuelled by money, that are sweeping China and creating a new upwardly mobile class with an appetite for all things Western. The Chinese Dream, in this case, looks a lot like the American Dream, down to its last master-planned, manicured, marbled and guard-gated detail.<sup>16</sup>

The cultures of the world are becoming homogenized. As David Suzuki explains, we are approaching the next wave of colonization, “. . . we take it as our responsibility to help [others] achieve what we think is a universal human aspiration: to acquire what we have.”<sup>17</sup> Believing our lifestyle not only warrants a global swell, but is capable of being reproduced worldwide, we gladly market our system to those only too willing to buy.

In his recent book, *Collapse*, American professor of geography and evolutionary biologist Jared Diamond, cites countless examples of cultures that experienced massive failures due to their relentless desire to import values to remote settings which could not support them. However, exporting the “American Dream” globally is liable to have widespread catastrophic consequences. Diamond posits that “China’s achievement of First World standards will approximately double the entire world’s human resource use and environmental impact”<sup>18</sup>, straining an already exhausted system of natural resources which can not support North America’s own illusions of sustainable consumption.



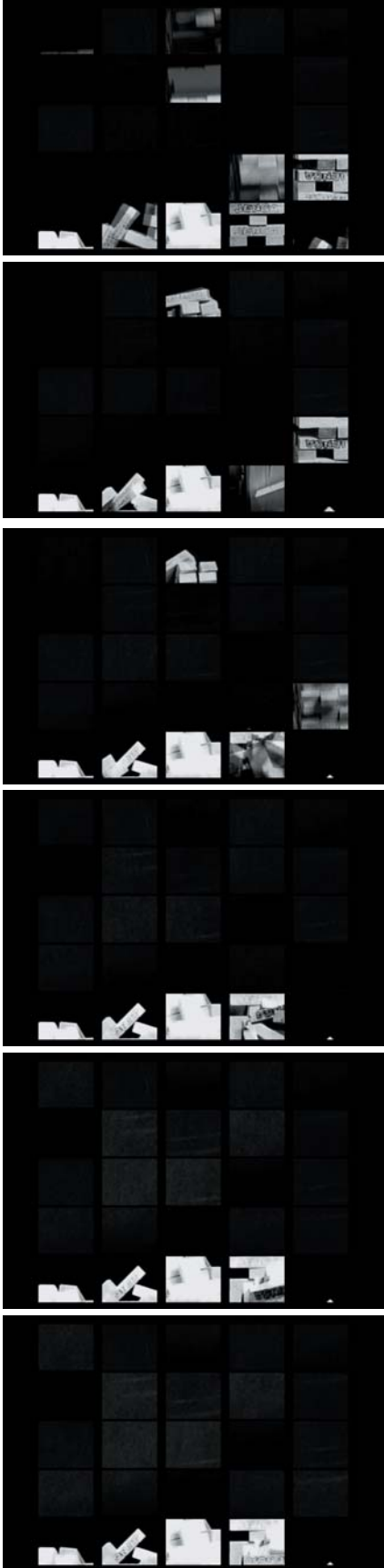


FIGURE 93 A-R . Time lapsed screen captures . TEETERING TOWER.

## CHINA, “LURCHING GIANT”

The force of China’s decisions is particularly pressing as it encompasses the world’s largest population, fastest growing economy, and a unique power structure capable of ambitious top-down decision making. Unified as a country in 221 B.C., China’s leadership is capable of implementing national policy which sends the entire country “swaying suddenly from side to side”, a trait which Diamond terms, “lurching”.<sup>19</sup> These bold sweeps of political legislation can have both positive and negative effects on China and consequently, its global neighbours.

The Chinese government continues to measure their success in terms of economic growth. As a result, the environment has often taken a backseat to the pursuit of economic interests. It is possible for China to set an attractive precedent with its potential for rapid implementation of ambitious environmental protection policies. This process needs to begin with the realization that there is immense value in the natural resources inherent to their land. However, it is perhaps equally important for China to recognize the detrimental impact it represents as a potential market for sourcing these same resources abroad.



They emerged from within the ground, eyes heavy, stained by the sun.

# ASCENT







FIGURE 94 . Hvalsley Cathedral . Collapse . Jared Diamond . 2005 . Last remnants of the Greenland Norse settlement.

## GREENLAND NORSE

For a half century between 980 and 1420 A.D., European settlers inhabited a small area of Greenland. At the time, European civilization's most remote outpost, the settlement was located over 1500 miles from the closest port in Norway.

Dominated by a landscape of ice and rock, the Greenland terrain is 99% uninhabitable. The Norse however managed to find patches of land at the head of two major fjords on which they established settlements. The water was desirable running inland from the sea, which tempered the cold ocean currents, salt and wind that suppressed vegetation on the exterior coast.

Although conditions were difficult and resources scarce, the Greenland Norse were able to recreate the major facets of a European community: storehouses, residential halls, and churches, some of which still stand. The church, a sentimental link to European civilization and its values, was the centerpiece of the settlement. Over time, however, this connection to Christian Europe would cost the Norse dearly as they would soon sacrifice their survival in order to live in accordance with the principles of the church.

Struggling against the impracticability of cultivating agriculture on the meagre fertile lands available, the Norse mainly relied on raising domestic livestock and hunting local animals to meet their food requirements. Initially, they were optimistic about the possibility of maintaining culturally prestigious livestock traditionally kept by Norwegian chiefs. Cows in particular were seen as status symbols. Although they required the most maintenance due to their fragile inability to graze for nine months of the Greenland year, they were stubbornly maintained. Despite constant food shortages and short growing summers, tireless efforts were upheld to produce enough hay to sustain the cows during the months that they were confined to the barns. In contrast, pigs, which were equally prized by the Vikings, were quickly wiped out as a result of their unprofitable and destructive nature in the Greenland climate. Sheep proved equally destructive, facilitating soil erosion through their grazing habits. In spite of this, since their water resistant wool was used as an export, their consequences were ignored. Much to the chagrin of the settlers, goats, who were considered least desirable, made up the bulk of the domestic livestock as they were best suited to the Greenland climate.

In terms of local food sources, the conservative Norse had developed a resistance towards fish, which were both abundant and readily available. Primarily, they relied on the hunting of caribou and harp seals, whose migration was vulnerable to environmental conditions. Although the Inuit had established successful methods for hunting many native species of wildlife, the Norse were opposed to adopting any cultural habits from a people they referred to as 'skraelings' or 'wretches'.<sup>1</sup>

Relying solely on their traditional European methods to support themselves, the Norse developed two settlements, Eastern and Western, which were dependant upon each

other for various necessities. The Eastern was in fact south of the Western settlement and was therefore more suited to the production of hay during its longer, milder summers. The Western settlement was situated closer to the Nordrseta hunting grounds which were the home to many of Greenland's most desirable exports. The expeditions were dangerous and time-consuming, yet each summer the Norse invested great expense in the pursuit of walrus ivory and hides, gyrfalcons, narwhal tusks and live polar bears which were among the most highly prized status symbols of the European elite.<sup>2</sup>

#### IMPORTING IDENTITY

The Norse were dependant on Europe for trade, but ships arrived infrequently and had limited cargo capacity. As a result, exports were limited to small, high value goods. Similarly, imports were limited to necessities which included lumber, iron, tar, church related paraphernalia and luxuries for the chiefs.

Although resources were scarce and ships intermittent, the Norse insisted on preserving their Christian European identity. There was one church built for every 20 farms in Greenland. Construction used immense amounts of wood (which was in short supply), and disproportionate amounts of the community's resources were expended to adorn the church with symbolic opulence. Once a resident bishop could finally be persuaded to make his way to Greenland, the clergy assumed its hold over the resources of the community, rivalled only by that of the chiefs. Over the life span of nine resident bishops, Nordrseta hunts were frequently commissioned for the sole purpose of purchasing more church bells, communion wine, robes, candlesticks and jewellery to honour the institution.

#### CLIMATE SHIFT

After the 1300's, Greenland's climate began to shift, ushering in what was termed the 'Little Ice Age'. The fragile Norse methods of survival proved ineffective under the stress of extended cold seasons. In addition, shipments from Europe on which they relied for necessary lumber, fuel, and iron were eventually halted because of ice conditions and a newly established trade route to Asia and Africa.

As time went on and conditions worsened, the conservative Norse clung to their psychological and emotional ties to Europe, rejecting physical sustenance in favour of social sustenance.<sup>3</sup> Hay production was stunted and the Harp seals ceased travelling the fjords due to the increase of ice. In the face of these changes, however, they maintained their aversion to innovative Inuit hunting methods which made use of the local ringed seals and whales which remained viable source of food and fuel in the cold conditions. The Norse guarded their Christian morals so closely that they could not fathom the idea of adapting to their climate which no longer supported many of their European customs. Instead they starved themselves, finally resorting to desperately slaughtering the cows which they had struggled to maintain for so many years.

By 1362, the Western settlement was empty, its last inhabitants

starving or freezing to death. The Eastern settlement suffered a similar fate, its population wiped out by the early 1400's.

While nature may have betrayed the Norse's expectations, one might ask how much of the eventual collapse was caused by environmental changes and how much was a result of the choices they made in its wake. Understandably, the settlers had failed to anticipate the 'Little Ice Age', for they had arrived during a period of unseasonably warm years. This mild climate had allowed them to establish the unsustainable European customs to which they would later cling. However, many of the other environmental problems were obviously a result of the damage the Norse themselves inflicted on the land. Rapid deforestation and soil erosion caused by the exploitation of materials early in their occupation compounded many of their struggles.

The Norse community's inability to recognize the need for unique solutions adapted to their specific situation is what ultimately defeated them. They persisted in their dependence on Norway for infrequent shipments of wood, only to construct heavy boats unsuited for the Greenland terrain. All the while the Inuit, using techniques designed specifically for local resources, were able to sustain themselves throughout the harsh climate changes and well beyond the collapse of the Norse settlements. Stubbornly conservative and adamantly European, the Norse's devotion to importing foreign Christian European customs in order to maintain artificial ties with Europe was a key factor in their demise. When Europe eventually abandoned them, it was obvious that they were completely dependent on imports, and although they had managed to maintain their settlements for several centuries, they were ultimately unsustainable as a Greenland culture.

## COLLAPSE

When asked why certain societies make catastrophic decisions which lead to their demise, Jared Diamond sites four categories of factors which may negatively impact group decision making.

The first category involves a failure to anticipate a problem. Conceivably the problem may have arisen suddenly, or the people may have had no prior experience with the issue.

The second category results from a failure to perceive the problem. A hazard may have developed with no visible signals to alert the people to the damage. Or perhaps the changes were gradual, accumulating through subtle differences from year to year, imperceptible to the residents of the area.

In the third set of scenarios, the group may have perceived the problem, but no action was taken to rectify the situation. This is often the result of selfish behaviour in which the few profit from the use of the last available resources to the detriment of the many. However, it may also be the result of irrational behaviour in which the members of society clung to a detrimental value which inhibited them from making shifts in their lifestyle that might have corrected the issue.

Lastly, the group may have perceived the problem, and they may have even tried to solve it, but their attempts may have proven unsuccessful. Perhaps the group lacked the resources or technical capabilities to sufficiently address the problem. A possible solution may have even appeared, but was not established within sufficient time to reverse the damage.<sup>4</sup>

The record of Easter Island's collapse finds that the society was plagued by many conditions, existing coincidentally and concurrently, in direct conflict with the values of the settlers. Tragically, each problem compounded its predecessors making the conception of a solution virtually impossible as time went on.

When the islanders arrived, they had unfortunately chosen the island with the greatest disposition towards deforestation of any island in the Pacific. Its high altitude, low annual rainfall, lack of volcanic activity, and extreme isolation, combined with the impact of the settlers, contributed greatly to its susceptibility to deforestation. Trees would disappear slowly, ushering in soil erosion and nutrient leeching which affected wild food sources and crop yields. Vermin, unknowingly transplanted to the island on the original voyages, destroyed the palm nuts and frustrated efforts made to repopulate the forests by interfering with the small replacement saplings. Unfortunately, these trees were among the slowest species to regenerate.

The islanders, who were clearly affected by what Diamond terms a "creeping normalcy" or "landscape amnesia", allowed problems to establish themselves as day to day changes which were virtually imperceptible<sup>5</sup>. The trees which had gradually decreased in size and utility ceased to be of any economic value as time went on. By the time the last tree was felled, the



trees were no longer a part of their daily life, and stories of the enormous palms had been long since forgotten.

It is true however that when problems of scarcity had become exceedingly apparent, the Easter Island chiefs, desperate to maintain their elite position, sanctioned the construction of even more impressive idols in a fight to retain their status. Although it was clear that each new construction merely compounded the problem and diverted attention away from the impending crisis, their egoism and desire for power and respect over competing clans prevailed. They chose to accelerate the deforestation rather than using the potential afforded to them by their top-down governance to attempt to halt or reverse the devastation.

The islanders, who fervently believed that the chiefs were their only contact with the gods, were more than happy to continue to construct the idols which they considered the only solution to the unbearable living conditions on the island. As the people prayed for *deus ex machina*, the chiefs continued to encourage their false hope. The truth was that they had already destroyed their land by that point. When it became apparent through increasingly dire conditions that the chief's promises had been essentially unfounded, civil war erupted. During this time, hundreds of Moai that they themselves had erected with great effort and at great expense were savagely destroyed by the islanders.

#### A GLOBAL VILLAGE

In the past, societies like those of Easter Island and the Greenland Norse settlements collapsed in isolation. Although the Norse had links to a larger civilization, those links eventually deteriorated and they too found themselves alone. Unwilling to adapt to their circumstances, they succumbed to their weaknesses without the life support provided by Europe. In both cases, the consequences of their demise were insignificant to their distant neighbours, who continued to live unaffected by their collapse.

Our current civilization exists as a global network of interconnected nations which rely on one another to provide both resources and knowledge. As diversity declines and homogeneous ideals are spread over huge expanses, we must begin to perceive our shrinking world as in fact similarly isolated.

As a result of our interdependence, if one nation fails, the network will have to absorb its failure. If many nations fail, the entire network may collapse. More than ever before, the repercussions of bad decision making will be felt on a scale that will reverberate throughout the globe. We must now view isolation on a different scale. It is possible to consider the earth as one isolated community, for all nations will suffer from the consequences of a collapse. The impending collapse is a worldwide collapse.

So how will our global civilization react to an impending crisis? The first step is acknowledging the existence of a problem. This involves circumventing traditional reactions to the

announcement of bad news and unattractive circumstances. In the past, our initial response has been to sweep such problems under the rug and maintain an illusion of plenty in order to continue living the way we do, unaffected.

Patterns are difficult to break. Our way of life is emotionally ingrained into our psyche. We see the world through a specific lens, clouded by a lifetime worth of culture and experiences. Our perception and consequently our reactions to familiar situations and practices are dependent on that which we have been expected to accept in the past. With this impediment to our perception, will we be able to anticipate the problem? Will we recognize it as a problem? Will we attempt to solve the problem? And will we succeed? Tragically, as the study of past civilizations has shown, it will be those tenets of our culture that are in fact most destructive to our sustainability as a civilization, which we will fight hardest to retain.

## ARCHITECTURE

Much of what we know about past nations is inferred from visiting the site of their settlements. What is left behind becomes a record of their mores and traditions. Architecture is a built manifestation of these cultural and socio-political ideals. It tells of how they lived, what they valued, and the extent of their resources in terms of materials and knowledge. In this same way, it is possible to read the architecture of our contemporary civilization in order to provide a portrait of ourselves and our preoccupations well before its collapse.

Maurice Merleau-Ponty theorized that:

The things of the world are not simply neutral objects which stand before us for our contemplation. Each one of them symbolises or recalls a particular way of behaving, provoking in us reactions which are either favourable or unfavourable. This is why people's tastes, character, and the attitude they adopt in the world and to particular things can be deciphered from the objects with which they choose to surround themselves . . .<sup>6</sup>

On Easter Island the only monuments left behind were the Moai. Similarly, what we leave behind in our wake will be a testament to our beliefs and desires. By re-evaluating our built environment, we will uncover a tremendous opportunity to identify those traits, implicit in ourselves and our behaviour which we may have previously overlooked.

Our architecture clearly exposes technology as both a fundamental tenant of our culture and a force with which we struggle. We are at once liberated by the freedom afforded to us by its potential, and yet dominated by the concessions that have been made to accommodate it.<sup>7</sup> We resent the limits inflicted upon us by nature and demonstrate a desire to manipulate and adapt our environment to our fantasies, yet we fashion our fantasies in nature's image. And although there has been progress made towards a sustainable building movement, our obsession with material wealth is manifest in an extensive suburban landscape which clearly does not acknowledge an impending scarcity of resources. Our architecture speaks to

a fixation with the persuasions of excess and consumption at a scale that rivals the monuments built to recognize the dominance of religion by past civilizations.

Currently, our built environment is at war with the land. Instead of addressing our environmental concerns, we are already attempting to wipe the slate clean with hermetically sealed buildings, artificial lights and air conditioning. Through great effort and expense we have focused our creative energies on developing strategies to replace nature with emerging technology, ignoring any harm we have caused to the earth and denying any responsibility we have for its remediation. We can not simply abandon the land; it is now necessary to conceive of long term solutions which restore a balance to our relationship with nature and its resources. Our faith in technology alone will not save us from the impending ecological crisis; it will be our choice to commit to a plan of action in the face of our current circumstances that will fuel a radical transformation in lifestyle that can begin to turn this situation around.

Carl Jung believed that, "There is no light without shadow. . ." It is necessary to confront those aspects of our collective psyche that may be considered negative in order to establish a sincere portrait of ourselves. As Connie Zweig and Jeremiah Abrams explain in their study of the shadow, "Only those who knew their capacity for lust, greed, rage, gluttony, and for all things excessive - who have understood and accepted their own potential for inappropriate extremes - can choose to regulate and humanize their actions."<sup>8</sup> It is only after we are able to recognize our self-indulgent patterns of control and consumption that we can begin to move forward, to understand the impact of our actions as individuals and as a collective. What is needed is awareness and a public desire for change. It is now necessary to reassess the hollow foundations of our cultural practices, in order to avoid the tragedy of our own delusions.

#### POTENTIAL

Although our built environment is clearly the product of our inflated fantasies, it can be seen simultaneously as the manifestation of our capabilities and our potential. Contemporary architecture defies limits and attempts to expand the boundaries of what is possible by attacking the promise of each new frontier. At some point, extravagance converges with originality, the decadence of our imagination becomes prophetic and super-structures can be seen as the testing grounds for new technological innovation. To dismiss the potentials of these constructions would be a mistake. The aim is not to stunt creative growth, but to harness it in order to direct its efforts in the pursuit of a sustainable fantasy for the future. It is possible to replace our stubborn adherence to hollow idols with an equally fervent mania for productive consciousness. First, we must understand that the walls that contain us we ourselves have constructed. Only then can the same human passion which drives us to madness, instead allow us to establish a solid ground.



# REFERENCE





## ABSTRACT

1. Nietzsche, Frederick. *Twilight of the Idols and The Anti-Christ*. Toronto: Penguin Books Canada Ltd. 2003. p 31.

## DESCENT

1. Mackay, Charles. *Extraordinary Popular Delusions and the Madness of Crowds*. London: George G. Harrap & Co. Ltd. 1956. p 90.
2. English proverb.
3. Berger, John. *Ways of Seeing*. New York: Viking Press. p 8.

## DELUSION

1. Mackay, Charles. *Extraordinary Popular Delusions and the Madness of Crowds*. London: George G. Harrap + Co. Ltd. 1956. p xix.
2. Jung, Carl. *Essays on Contemporary Events*. Hertford: Stephen Austin and Sons, Ltd. 1947. p xiii.
3. Suzuki, David, Holly Dressel. *From Naked Ape to Superspecies*. Toronto: Stoddard Publishing Co. Limited. 1999. p 259.
4. Ibid. p 38.
5. Debord, Guy. *Society of the Spectacle*. Detroit: Black and Red. 1983.
6. Jung, Carl. *Essays on Contemporary Events*. Hertford: Stephen Austin and Sons, Ltd. 1947. p 32.
7. Nietzsche, Frederick. *Twilight of the Idols and The Anti-Christ*. Toronto: Penguin Books Canada Ltd. 2003. p 31.
8. Ferrari, Michele & Ives, Stephen. *Las Vegas: An Unconventional History*. New York: Bulfinch Press. 2005. p 119.
9. Ibid. p 121.
10. Begout, Bruce. *Zeropolis*. London: Reaktion Books Ltd. 2003. p 18.
11. Ferrari, Michele & Ives, Stephen. *Las Vegas: An Unconventional History*. New York: Bulfinch Press. 2005. p 124.
12. "Nevada Test Site." <[http://en.wikipedia.org/wiki/Nevada\\_Test\\_Site](http://en.wikipedia.org/wiki/Nevada_Test_Site)> January 1, 2007.
13. Walters, Heidi. "Testing, Testing." *Las Vegas Mercury*. <<http://www.lasvegasm Mercury.com/2003/MERC-Jun-19-Thu-2003/21550072.html>> June 19, 2003.
14. Marx, Karl and Friedrich Engels. *The Communist Manifesto*. Toronto: Penguin Books Canada Ltd, 2004. p 7.

## SYSTEMATIC COLLAPSE

1. Wright, Ronald. *A Short History of Progress*. Toronto: House of Anansi Press. 2004. p. 60.
2. Merleau Ponty, Maurice. *The World of Perception*. New York: Routledge. 2004. p. 81.
3. "The Great American Lawn." Canadian Centre for Architecture <<http://cca.qc.ca/pages/Niveau3.asp?page=depliant&lang=eng>>
4. "Green Grass of Just Green." *House and Garden* (August 1960): p 96-7
5. Steinberg, Ted. *American Green: The Obsessive Quest for the Perfect Lawn*. New York: WW. Norton & Company Inc. 2006. p 19.
7. Ibid. p 23.
8. Ibid. p 24.
9. Teysso, Georges. "Lawnmowers and machine guns." *Blueprint July/August 1998*. p 30.
10. Wigley, Mark "The Electric Lawn." *The American Lawn*. Ed. Georges Teysso. 1999. p 156.
10. Steinberg, Ted. *American Green: The Obsessive Quest for the Perfect Lawn*. New York: WW. Norton & Company Inc. 2006. p 45.
12. Ibid. p 181.
13. Samuelson, Robert J. "The Joys of Mowing." *Newsweek* 117, April 1991. p 49.
14. Teysso, Georges. "The American Lawn: Surface of Everyday Life." *The American Lawn*. Ed. Georges Teysso. 1999. p 4.
15. "Research." Rutgers Center for Turfgrass Science. <<http://turf.rutgers.edu>>
16. Steinberg, Ted. *American Green: The Obsessive Quest for the Perfect Lawn*. New York: WW. Norton & Company Inc. 2006. p 64.
17. Ibid. p 206.
18. Ibid. p 85.

19. Moore, James Francis. "Helping Your Greens Make the Grade." *United States Golf Association Green Section Record* vol. 36 March/April 1998.
20. Steinberg, Ted. *American Green: The Obsessive Quest for the Perfect Lawn*. New York: WW. Norton & Company Inc. 2006. p 96.
21. Ibid. p 98.
22. "Stimpmeter Instruction Booklet." United States Golf Association.
23. <<http://www.usga.org/turf/articles/management/greens/stimpmeter.html>>
24. Zontek, Stanley J., "Sometimes Mother Nature Needs a Little Help." *United States Golf Association Green Section Record* vol. 28 March/April 1990. p 5.
25. Steinberg, Ted. *American Green: The Obsessive Quest for the Perfect Lawn*. New York: WW. Norton & Company Inc. 2006. p 189.
26. Ferrari, Michele & Ives, Stephen. *Las Vegas: An Unconventional History*. New York: Bulfinch Press. 2005.
27. Fox, William. "The Wildest Water Park in the West." *Las Vegas Life*. <<http://www.lvlife.com/2004/04/feature2.html>> 2004.
28. Kunstler, James Howard. *The City in Mind - Notes on the Urban Condition*. New York: The Free Press. 2001. p 160.

## IN OPPOSITION

1. Huysmans, Joris-Karl, *Against Nature*. Toronto: Penguin Books Canada Ltd. 2003. p 49.
2. Fjellman, Stephen M. *Vinyl Leaves: Walt Disney World and America. Institutional Structures of Feeling*. Boulder: Westview Press, 1992. p 226.
3. Ibid. p 66.
4. Decoeur, Larayne & Morowitz, Noah. *Modern Marvels - Walt Disney World* (History Channel) 2006.
5. Fjellman, Stephen M. *Vinyl Leaves: Walt Disney World and America. Institutional Structures of Feeling*. Boulder: Westview Press, 1992. p 254.
6. "Liberty Square." Disney Information. <<http://www.wdwinform.com/wdwinform/guides/magickingdom/libertysquar.htm>>
7. Birnbaum, Steve. *Steve Birnbaum Brings you the best of Walt Disney World*. New York: Houghton Mifflin, 1988. p 89.
8. Bryman, Alan. *Disney and his Worlds*. New York: Routledge 1995. p102
9. "Corporate video." Nakheel. <<http://www.nakheel.ae/index.html>>
10. "History." Nakheel. <[http://www.nakheel.ae/Corporate\\_Information/History](http://www.nakheel.ae/Corporate_Information/History)>
11. "Megalophobia." <<http://en.wikipedia.org/wiki/Megalophobia>>
12. The Palm Jumeirah. <<http://www.thepalm.ae>>
13. "Jumeirah Islands." Nakheel. <[http://www.nakheel.ae/Developments/Jumeirah\\_Family\\_of\\_B/Jumeirah\\_Islands](http://www.nakheel.ae/Developments/Jumeirah_Family_of_B/Jumeirah_Islands)>
14. "Snowdome." The Emirates Network Real Estate. <<http://realestate.theemiratesnetwork.com/developments/dubai/dubailand/snowdome.php>>
15. Dubai Land. <<http://dubailand.ae>>
16. "News." The Great Wheel Corporation. <<http://www.greatwheel.com>>
17. "Donald J Trump Jr: Trump International Hotel & Tower, The Palm Jumeirah to be the pinnacle of 21st Century Living." Nakheel. <[http://www.nakheel.ae/News/Donald\\_J\\_Trump\\_Jr\\_\\_T](http://www.nakheel.ae/News/Donald_J_Trump_Jr__T)>
18. "Megabuilers." Discovery Channel. Canal D Productions. 2005.

## TEETERING TOWER

1. Raban, Jonathan. *Hunting Mister Heartbreak*. London: Collins Harvill. 1990. p 88. cited in Begout, Bruce. *Zeropolis : The Experience of Las Vegas*. Topographics. London: Reaktion Books, 2003
2. Suzuki, David, Holly Dressel. *From Naked Ape to Superspecies*. Toronto: Stoddard Publishing Co. Limited. 1999. p 161.
3. "Welcome to Orange County, China." *Los Angeles Times*. 9 March 2002.
4. Ibid.
5. Chiu, Lisa & Gittelsohn, John. "Jujun is an oasis of America in Beijing, a new lifestyle for the nation's rich." *The Orange County Register*. 14 April 2002.
6. Ibid.

- 7 . Rosenthal, Elisabeth. "North of Beijing, California Dreams Come True." The New York Times. 3 February 2003.
- 8 . "One Child Policy." <[http://en.wikipedia.org/wiki/One-child\\_policy](http://en.wikipedia.org/wiki/One-child_policy)>
- 9 . Diamond, Jared. *Collapse*. Toronto: Penguin Group. 2005. p 360.
- 10 . Ibid. p 360.
- 11 . Kunstler, James Howard. *The Geography of Nowhere: The Rise and Decline of America's Man Made Landscape*. New York: Simon + Schuster. 1993. p 108.
- 12 . "Welcome to Orange County, China." Los Angeles Times. 9 March 2002.
- 13 . Rosenthal, Elisabeth. "North of Beijing, California Dreams Come True." The New York Times. 3 February 2003.
- 14 . "Welcome to Orange County, China." Los Angeles Times. 9 March 2002.
- 15 . Koolhaas, Rem. *Content*. Koln: Tashen. 2004. p 438.
- 16 . "Welcome to Orange County, China." Los Angeles Times. 9 March 2002.
- 17 . Suzuki, David, Holly Dressel. *From Naked Ape to Superspecies*. Toronto: Stoddard Publishing Co. Limited. C1999. p. 231
- 18 . Diamond, Jared. *Collapse*. Toronto: Penguin Group. 2005. p 372.
- 19 . Ibid. p 374.

#### ASCENT

- 1 . Diamond, Jared. *Collapse*. Toronto: Penguin Group. 2005. p 261.
- 2 . Ibid. p 241.
- 3 . Ibid. p 242.
- 4 . Ibid. p 421.
- 5 . Ibid. p 425.
- 6 . Merleau-Ponty, Maurice. *The World of Perception* [Causeries 1948.]. London ; New York: Routledge, 2004. p 63.
- 7 . Kroecker, Arthur. "Technology and the Canadian mind: Innis, McLuhan, Grant." Montreal: New World Perspectives, 1984.
- 8 . Abrams, Jeremiah & Zweig, Connie. *Meeting the Shadow*. New York: Tarcher Putnam, 1991.

- Abrams, Jeremiah & Zweig, Connie. *Meeting the Shadow*. New York: Tarcher Putnam, 1991.
- Achbar, Mark and Jennifer Abbott. *The Corporation*. 2003.
- Adams, Robert. *Summer Nights: Photographs*. New York: Aperture, 1985.
- Art Gallery of Ontario. *Michael Snow/A Survey*. 1970: 1970.
- Arthus-Bertrand, Yann, Isabelle Delannoy, and Christian Balmes. *Earth from Above: 365 Days*. Reprint with amendments ed. New York: Harry N. Abrams, 2005, <http://www.loc.gov/catdir/toc/ecip0510/2005008952.html>; <http://www.loc.gov/catdir/enhancements/fy0630/2005008952-d.html>.
- Baichwal, Jennifer. *Manufactured Landscapes*. 2006.
- Bégout, Bruce. *Zeropolis : The Experience of Las Vegas*. Topographics. London: Reaktion Books, 2003.
- Berger, John. *Ways of Seeing*. New York: Viking Press, 1977.
- Betsky, Aaron, Diller + Scofidio, and Whitney Museum of American Art. *Scanning : The Aberrant Architectures of Diller + Scofidio*. New York: Whitney Museum of American Art ; New York : Distributed by Harry N. Abrams, Inc., 2003.
- Birnbaum, Steve. *Steve Birnbaum Brings you the best of Walt Disney World*. New York: Houghton Mifflin, 1988.
- Boethius, Axel, 1889. *The Golden House of Nero; some Aspects of Roman Architecture*. Jerome Lectures, 5Th Ser. Ann Arbor, University of Michigan Press. 1960.
- Bryman, Alan. *Disney and His Worlds*. London ; New York: Routledge, 1995.
- Chiu, Lisa & Gittelsohn, John. "Jujun is an oasis of America in Beijing, a new lifestyle for the nation's rich." *The Orange County Register*. 14 April 2002.
- Debord, Guy. *Society of the Spectacle*. Detroit: Black and Red, 1983.
- Decoeur, Larayne & Morowitz, Noah. *Modern Marvels - Walt Disney World (History Channel)* 2006.
- Diamond, Jared M. *Collapse : How Societies Choose to Fail Or Succeed*. New York: Viking, 2005.
- Duany, Andres, Elizabeth Plater-Zyberk, and Jeff Speck. *Suburban Nation : The Rise of Sprawl and the Decline of the American Dream*. 1st ed. New York: North Point Press, 2000.
- Ferrari, Michele & Ives, Stephen. *Las Vegas: An Unconventional History*. New York: Bulfinch Press. 2005.
- Fjellman, Stephen M. *Vinyl Leaves : Walt Disney World and America*. Institutional Structures of Feeling. Boulder: Westview Press, 1992.
- Foster, Hal. *Recodings : Art, Spectacle, Cultural Politics*. 1st - ed. Port Townsend, Wash.: Bay Press, 1985.
- Fox, William. "The Wildest Water Park in the West." *Las Vegas Life*. <http://www.lvlife.com/2004/04/feature2.html>. 2004.



- Freud, Sigmund and James Strachey. *Introductory Lectures on Psychoanalysis*. The Penguin Freud Library. Vol. 1. England: Penguin Books, 1991.
- Gierstberg, Frits and Warna Oosterbaan. *The Image Society : Essays on Visual Culture*. Rotterdam: NAI Publishers, 2002.
- Grebler, Robert. *Jenga Mark II Instruction*. Toronto: Irwin Toy Ltd., 1985.
- Greene, Greg and Gregory Greene. *The End of Suburbia: Oil Depletion and the Collapse of the American Dream*. 2004.
- Harvey, David. "Marxism, Metaphors, and Ecological Politics." *Monthly Review* 49, no. 11, 1998.
- Heath, Joseph and Andrew Potter. *The Rebel Sell : Why the Culture can't be Jammed*. Toronto: HarperCollins Publishers, 2004.
- Hofstadter, Douglas R., 1945. *Godel, Escher, Bach : An Eternal Golden Braid*. New York : Basic Books, c1979: 1979.
- Hughes, Ted & Keen, Peter. *River*. London ; Boston: Faber and Faber in association with James & James, 1983.
- Huysmans, J. -K, Robert Baldick, and Patrick McGuinness. *Against Nature*. Penguin Classics. [A rebours.]. London: Penguin, 2003.
- Jacobs, Jane. *Systems of Survival: A Dialogue on the Moral Foundations of Commerce and Politics*. 1st ed. New York: Random House, 1992.
- Jung, C. G. (Carl Gustav), Elizabeth Welsh, Barbara Hannah, and Mary Briner. *Essays on Contemporary Events*. London: K. Paul, 1947.
- Kafka, Franz and Mark Harman. *The Castle : A New Translation, Based on the Restored Text [Schloss.]*. 1st ed. New York: Schocken Books, 1998.
- Koolhaas, Rem. *Content*. Koln: Taschen. 2004.
- Kroecker, Arthur. *Technology and the Canadian mind: Innis, McLuhan, Grant*. Montreal: New World Perspectives, 1984.
- Kunstler, James Howard. *The Long Emergency : Surviving the Converging Catastrophes of the Twenty-First Century*. 1st ed. New York: Atlantic Monthly Press, 2005.
- . *The Geography of Nowhere: The Rise and Decline of America's Man Made Landscape*. New York: Simon + Schuster. 1993.
- . *The City in Mind : Meditations on the Urban Condition*. New York ; London: Free Press, 2001.
- . *The Geography of Nowhere : The Rise and Decline of America's Man-made Landscape*. New York: Simon & Schuster, 1993.
- Mackay, Charles. *Extraordinary Popular Delusions and the Madness of Crowds*. London: G.G. Harrap, 1956.
- Marx, Karl and Friedrich Engels. *The Communist Manifesto*. Toronto: Penguin Books Canada Ltd, 2004.
- Merleau-Ponty, Maurice. *The World of Perception [Causeries 1948.]*. London ; New York: Routledge, 2004.
- Mikhailov, Boris. *Salt Lake*. Göttingen: Steidl Verlag, 2002.

- Moore, James Francis. "Helping Your Greens Make the Grade." *United States Golf Association Green Section Record* vol. 36, March/April 1998.
- Nietzsche, Friedrich Wilhelm, R. J. Hollingdale, and Friedrich Wilhelm Nietzsche. *Twilight of the Idols, and, the Anti-Christ*. Penguin Classics. London ; New York: Penguin Books, 2003.
- Ockman, Joan and Salomon Frausto. *Architourism : Authentic, Escapist, Exotic, Spectacular*. Munich ; New York: Prestel, 2005.
- Pallasmaa, Juhani. *The Eyes of the Skin : Architecture and the Senses*. Polemics. London; Lanham, MD: Academy Editions; Distributed to the trade in the USA by National Book Network, 1996.
- Project on Disney. *Inside the Mouse : Work and Play at Disney World*. Post-Contemporary Interventions. Durham: Duke University Press, 1995.
- Reggio, Godfrey. *Naqoyqatsi*. 2002.
- . *Powaqqatsi*. 1988.
- . *Koyaanisqatsi*. 1982.
- Rosenthal, Elisabeth. "North of Beijing, California Dreams Come True." *The New York Times*. 3 February 2003.
- Sadler, Simon. *The Situationist City*. Cambridge, Mass. ; London: MIT Press, 1998.
- Samuelson, Robert J. "The Joys of Mowing." *Newsweek* 117, April 1991.
- Sontag, Susan. *On Photography*. New York: Picador : Farrar, Straus and Giroux, 2001.
- Steinberg, Theodore. *American Green : The Obsessive Quest for the Perfect Lawn*. 1st ed. New York: W.W. Norton & Company, 2006, <http://www.loc.gov/catdir/toc/ecip0519/2005026366.html>.
- Suzuki, David T. and Holly Jewell Dressel. *From Naked Ape to Superspecies : A Personal Perspective on Humanity and the Global Eco-Crisis*. Toronto: New York : Stoddart, 1999.
- Teysot, Georges. "Lawnmowers and machine guns." *Blueprint*, July/August 1998.
- Teysot, Georges. "The American Lawn: Surface of Everyday Life." *The American Lawn*. Ed. Georges Teysot. 1999.
- Walters, Heidi. "Testing, Testing." *Las Vegas Mercury*. <http://www.lasvegasmercury.com/2003/MERC-Jun-19-Thu-2003/21550072.html>. 2003.
- Wigley, Mark "The Electric Lawn." *The American Lawn*. Ed. Georges Teysot. 1999.
- Wright, Ronald. *A Short History of Progress*. CBC Massey Lectures. Toronto: House of Anansi Press, 2004.
- Zontek, Stanley J., "Sometimes Mother Nature Needs a Little Help." *United States Golf Association Green Section Record* vol. 28, March/April 1990.
- AME Info. [www.ameinfo.com](http://www.ameinfo.com). 2005.
- Chris Jordan Photography. <http://www.chrisjordan.com>. 2005.

- "Completed New Golf Courses." *Weitz Golf International*. [www.weitzgolf.com/projects/golf-courses](http://www.weitzgolf.com/projects/golf-courses). 2005.
- "Corporate video." *Nakheel*. <http://www.nakheel.ae/index.html>. 2006.
- "Donald J Trump Jr: Trump International Hotel & Tower, The Palm Jumeirah to be the pinnacle of 21st Century Living." *Nakheel*. [http://www.nakheel.ae/News/Donald\\_J\\_Trump\\_Jr\\_\\_T](http://www.nakheel.ae/News/Donald_J_Trump_Jr__T). 2006.
- Dubai Land*. <http://dubailand.ae>. 2006.
- "Green Grass of Just Green." *House and Garden*, August 1960.
- "Liberty Square." *Burnsland*. [http://www.burnsland.com/wdw/liberty\\_square.shtml](http://www.burnsland.com/wdw/liberty_square.shtml). 2003.
- "Liberty Square." *Disney Information*. <http://www.wdwinfo.com/wdwinfo/guides/magickingdom/libertysquar.htm>. 2006.
- "Magic Kingdom (Orlando)" *ArcHus*. <http://www.achus.org/galerias/thumbnails.php?album=75&page=4>. 2002.
- "Masters Course Tours." *Augusta National*. [www.augusta.com/masters/coursetour](http://www.augusta.com/masters/coursetour). 2005.
- "Megabuilders." *Discovery Channel*. Canal D Productions. 2005.
- "Megalophobia." *Wikipedia*. <http://en.wikipedia.org/wiki/Megalophobia>. 2006.
- "Nevada Test Site." *Wikipedia*. [http://en.wikipedia.org/wiki/Nevada\\_Test\\_Site](http://en.wikipedia.org/wiki/Nevada_Test_Site). 2006.
- Nakheel*. <http://www.nakheel.ae>. 2006.
- "News." *The Great Wheel Corporation*. <http://www.greatwheel.com>. 2006.
- "One Child Policy." *Wikipedia*. [http://en.wikipedia.org/wiki/One-child\\_policy](http://en.wikipedia.org/wiki/One-child_policy). 2006.
- "Research." *Rudgers Center for Turfgrass Science*. <http://turf.rutgers.edu>. 2006.
- "Snowdome." *The Emirates Network Real Estate*. <http://realestate.theemiratesnetwork.com/developments/dubai/dubailand/snowdome.php>. 2006.
- "Stimpmeter Instruction Booklet." *United States Golf Association*. <http://www.usga.org/turf/articles/management/greens/stimpmeter.html>. 2006.
- "The Great American Lawn." *Canadian Centre for Architecture*. <http://cca.qc.ca/pages/Niveau3.asp?page=depliant&lang=eng>. 2006.
- The Palm Jumeirah*. <http://www.thepalm.ae>. 2006.
- "Walt Disney World – Orlando, FL." *Virtual Tourist*. [http://www.virtualtourist.com/travel/North\\_America/United\\_States\\_of\\_America/Florida/Orlando-764037/Things\\_To\\_Do-Orlando-Walt\\_Disney\\_World-BR-3.html](http://www.virtualtourist.com/travel/North_America/United_States_of_America/Florida/Orlando-764037/Things_To_Do-Orlando-Walt_Disney_World-BR-3.html). 2004.
- "Welcome to Orange County, China." *Los Angeles Times*. 9 March 2002.
- "World War II war bunker." [www.travelblog.org](http://www.travelblog.org). 2006.



120 . **DELUSION** . FILMING SET . CHOREOGRAPHY . ORIGINAL FABRIC AND LIGHTING TESTS .

126 . **SYSTEMATIC COLLAPSE** . CUTTING TEST PATTERNS . FILMING SET . TEST TAKES 01 . 02

130 . **IN OPPOSITION** . FILMING SITE . CONCEPTUAL SKETCH . SITE PHOTOS

132 . **TEETERING TOWER** . PRELIMINARY TEST FILM . FILM LAYOUT DOCUMENTATION. DOCUMENTATION OF FILM TAKES

# APPENDIX A



FIGURE 95 . Elevation of filming set . DELUSION .

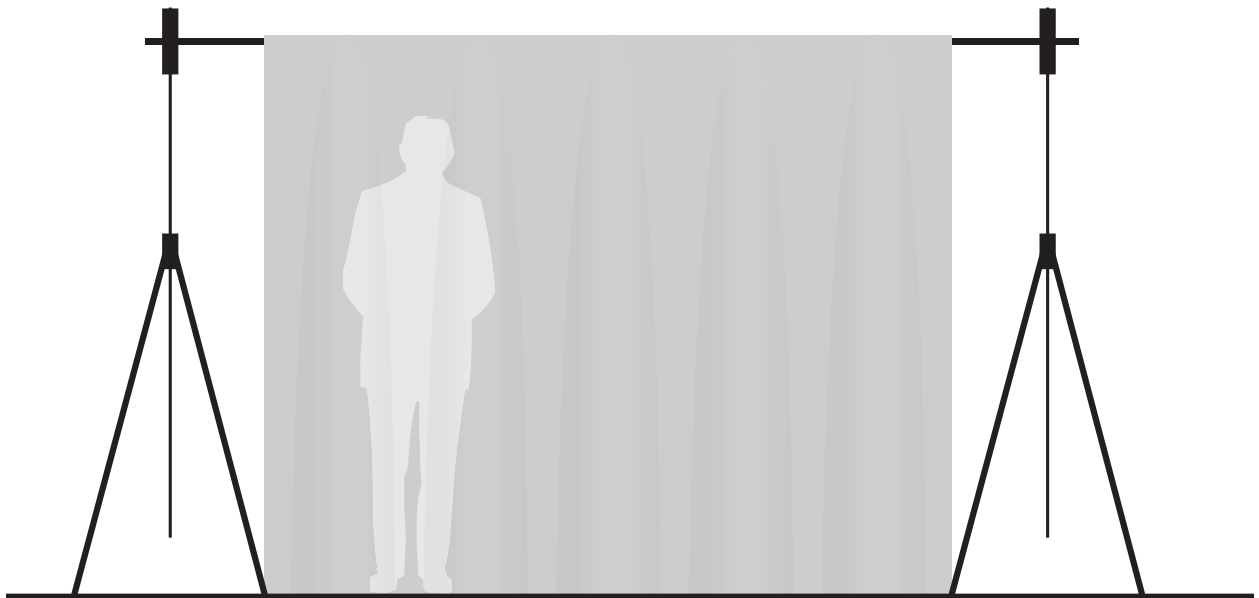
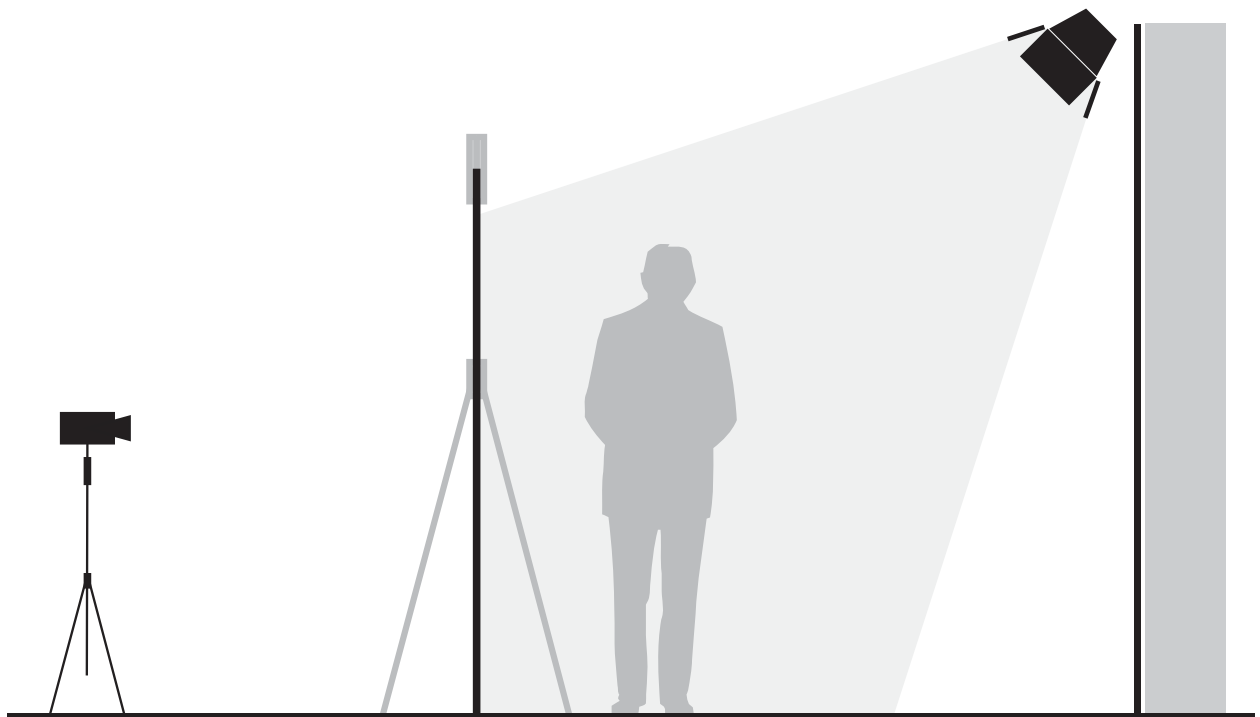


FIGURE 96 . Section of filming set . DELUSION . Showing placement of camera in relation to screen and figure.

DELUSION



RIVER BARROW

By Ted Hughes

The light cools. Sun going down clear  
 Red-molten glass-blob, into green ember crumble  
 Of hill trees, over the Barrow  
 Where the flushed ash-grey sky lies perfect.

A skull tower is a nameless tomb. We sprawl  
 Rods out, giant grasshopper antennae, listening  
 For the bream-shoal to engage us.

The current

Hauls its foam-line feed-lane  
 Along under the far bank – a furrow  
 Driving through heavy wealth,  
Dragging a syrupy strength, a down-roping  
Of the living honey.

It's an ancient thirst  
 Savouring all this, at the day's end,  
 Soaking it all up, through every membrane  
As if the whole body were a craving mouth,  
 As if a hunted ghost were drinking – sud-flecks  
 Grass-bits and omens  
 Fixed in the glass.

Trees inverted  
 Even in this sliding place are perfect.  
 All evil suspended. Flies  
 Teem over my hands, twanging their codes  
 In and out of my ear's beam. Future, past,  
 Reading each other in the water mirror  
 Barely tremble the thick nerve.

Heavy belly

Of river, solid mystery  
With a living vein. Odd trout  
 Flash-plop, curdle the molten,  
 Rive a wound in the smooth healing.  
 Over the now pink-lit ballroom glass  
 Tiny sedge-flies partner their shadows.

A wobbly, wavering balance of light  
 Mercury precarious in its sac  
 Leans to the weir's edge, spilling. Dog-bark stillness.  
 A wood-pigeon is buffing the far edges  
 Of the smoothing peace.

Great weight

Resting effortless on the weightless.  
A cow's moo moves through the complex  
Of interstled metals, a moon-spasm  
Through interfolded underseas. I lie here,  
 Half-unearthed, an old sword in its scabbard,  
 Happy to moulder. Only the river moves.

Feet prickling in my tight-sock gumboots,  
 Hair itching with midges, blood easy  
 As this river. Honeysuckle  
 Pouring its horns of plenty over us  
 From the thickets behind.

A big fish,

Bream-roll or evening salmon, crashes  
 A crater of suds, and the river widens.

A long-armed spider readjusts his gunsights  
 Between glumes of over-leaning river-grass.

Midge bites itching and swelling.

CHOREOGRAPHY

*Italicised text . excerpts from River Barrow, the Ted Hughes poem above.*

*light cools*

Subject stands slowly from crouch position  
 A, walks towards screen

*dragging a syrupy strength*

Slowly dragging fingers along the screen,  
 walks right, arrive position B

*barely tremble the thick nerve*

Subject walking back from screen slowly,  
 arrive position C

*rise a wound in the smooth healing*

Approach the screen diagonally, quick pace,  
 arrive position D

*flash plop - curdle the molten*

Pulling at screen, struggle against the thin  
 fabric, close to the screen walk right, arrives position E

*happy to moulder*

Stands overcome, turn to backdrop, slowly retreat to  
 position A, diagonal approach

*river widens stillness*



FIGURE 97 . River at night . Cambridge, Ontario.

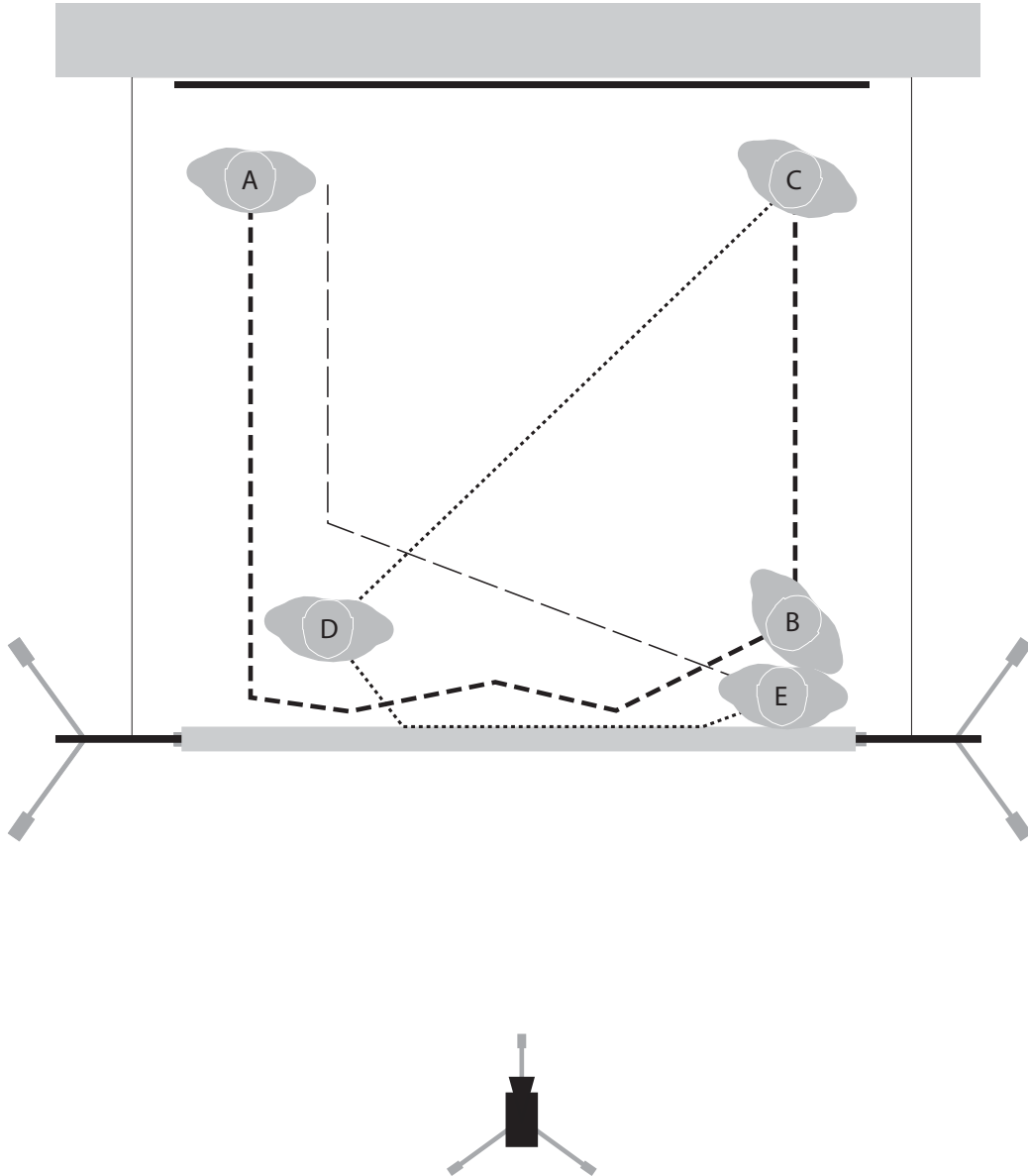


FIGURE 98 . Choreography plan . DELUSION .



FIGURE 99-100 . Fabric and lighting tests . DELUSION . 01:00:00;00 . M1 Studio . Model: BJ . Loose net fabric, tight net fabric . Single light source behind subject . Daylight.



FIGURE 101-102 . Fabric and lighting tests . DELUSION . 01:02:04;03 . ACM Studio . Model: Iris . Fabric testing : opaque knit, broadcloth, sheer clearance fabric . Single light source behind object . Angle waist height . 500 watt bulb . Silhouette tests.

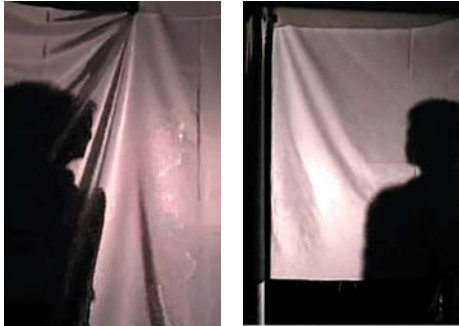


FIGURE 103-106 . Fabric and lighting tests . DELUSION . 01:04:26;13 . M1 Studio . Model: BJ . Sheer clearance fabric . Single light source behind subject . 200 watt bulb . Night.



FIGURE 107-108 . Fabric and lighting tests . DELUSION . 01:05:07;01 . M1 Studio . Model: BJ . Sheer clearance fabric . Lighting various . 60 watt bulb . Night. Testing specifically light placement in relation to subject.



FIGURE 109 . Fabric and lighting tests . DELUSION . 01:09:15;24 . M1 Studio . Model: Hai . Sheer clearance fabric . Lighting various . 60 watt, 200 watt bulb . Night. Testing specifically light placement in relation to subject and background colour.



FIGURE 110-111 . Fabric and lighting tests . DELUSION . 01:09:55;06 . M1 Studio . Model: Hai . Sheer clearance fabric . Lighting various . 60 watt, 200 watt bulb . Night. Testing specifically light placement in relation to subject and choreography.



FIGURE 112-113 . Fabric and lighting tests . DELUSION . 01:25:39;15 . ACM Studio . Model: Jamie . Sheer clearance fabric . Lighting various . Single and dual light sources 500 watt bulb . Testing specifically light placement in relation to subject and background set.



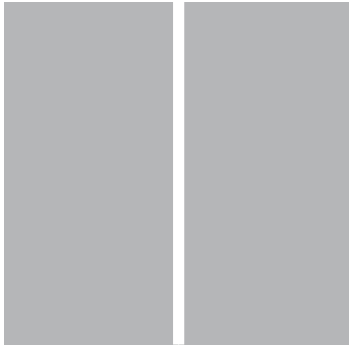
FIGURE 114-115 . Fabric and lighting tests . DELUSION . 01:28:04;08 . ACM Studio . Model: Hayley . Sheer clearance fabric . Lighting various . Single and dual light sources 500 watt bulb . Testing specifically light placement in relation to subject, background set, depth, camera position and height.



FIGURE 116-117 . Fabric and lighting tests . DELUSION . Final studies . ACM Studio . Model: Julie . Sheer clearance fabric . Lighting various . Single and dual light sources 500 watt bulb.



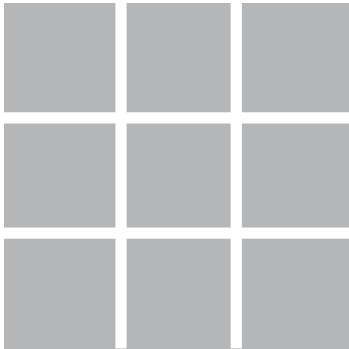
SYSTEMATIC COLLAPSE



SINGLE SLICE



TRI SLICE



CHECKERBOARD



SPONTANEOUS SLICE

FIGURE 118 . Above . Cutting test patterns used in preliminary takes . SYSTEMATIC COLLAPSE.

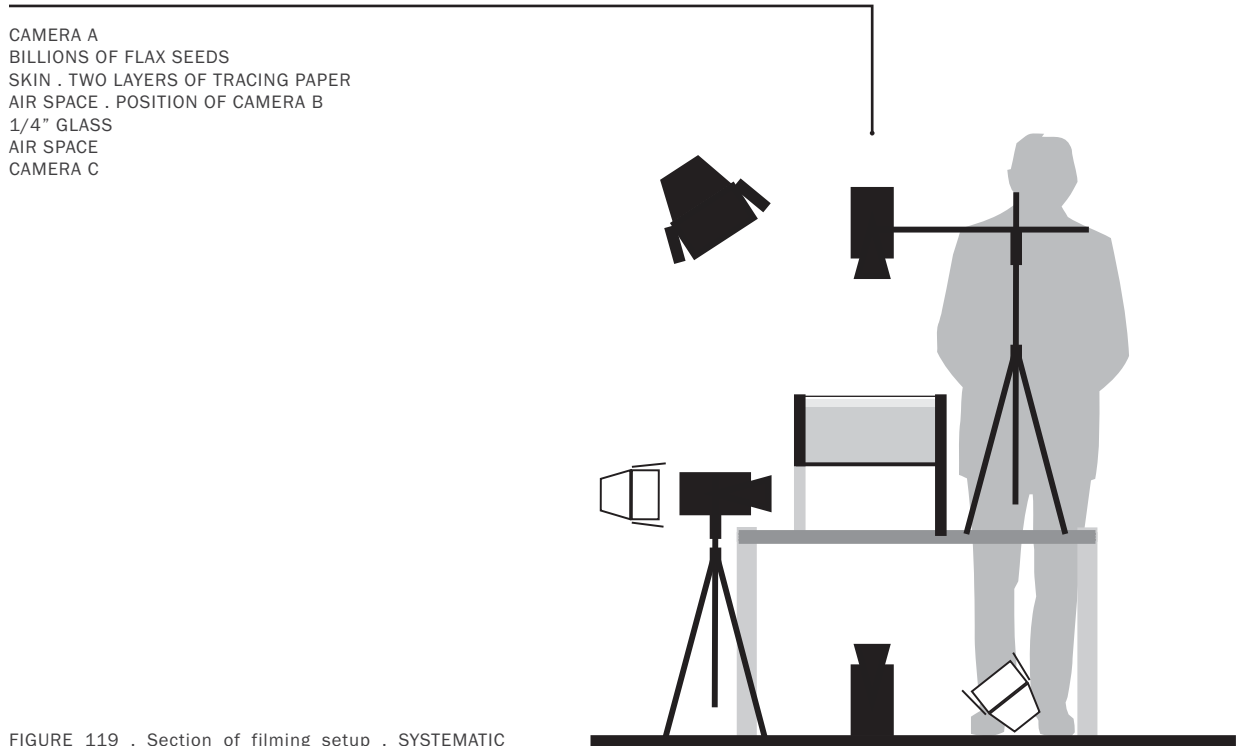
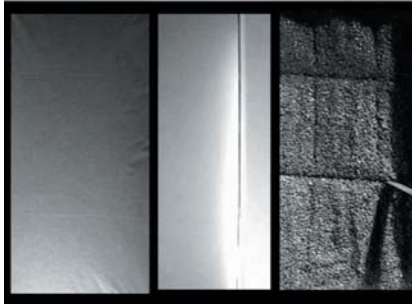


FIGURE 119 . Section of filming setup . SYSTEMATIC COLLAPSE

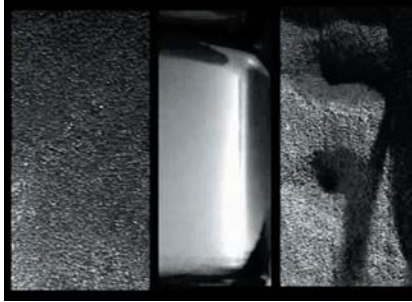
SYSTEMATIC COLLAPSE



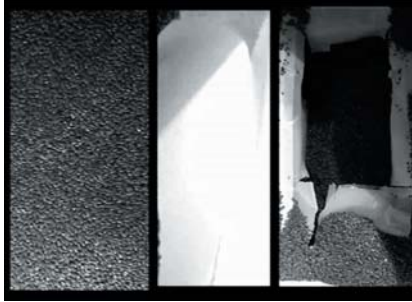
01:00:00:00



01:00:01:30



01:00:03:30



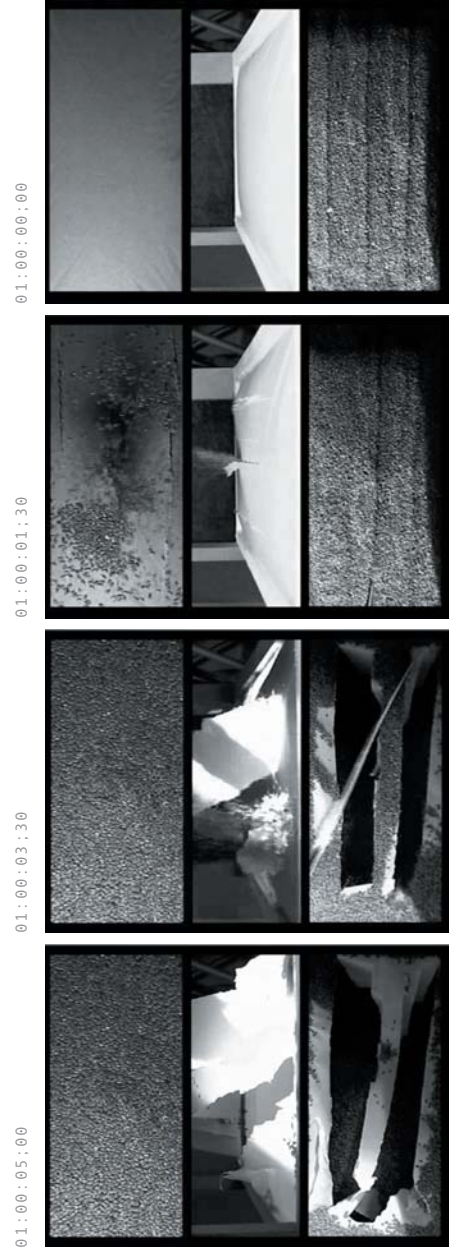
01:00:05:00



FIGURE 120 . Left and Above . SYSTEMATIC COLLAPSE . T01 . CHECKERBOARD . Footage of the first take using a checkerboard pattern, extreme burst effect as an entire section of the skin falls together with most of the seeds, but the process ends too abruptly, no room for extension. Abandoned to attempt additional slice patterns.



FIGURE 121 . Right and Above . SYSTEMATIC COLLAPSE . T02 . STRIPES W/ GUSTO. Footage of the second take using a three stripe pattern, good bust effect but too much variation in intensity. Simplify to bold, controlled, intentional strokes. Attention needed to pacing of strokes. Continue to cut skin after signs of weakness and initial burst.



SYSTEMATIC COLLAPSE



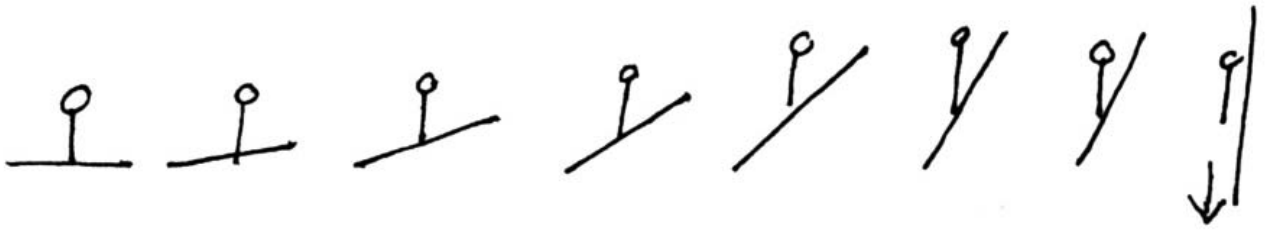




FIGURE 122 . Above . Site section . IN OPPOSITION . Salisbury Avenue, Cambridge Ontario . Filming site is highlighted.

FIGURE 123 . Left . Concept Sketch . IN OPPOSITION.

FIGURE 124 . Right . Site Photo . IN OPPOSITION.



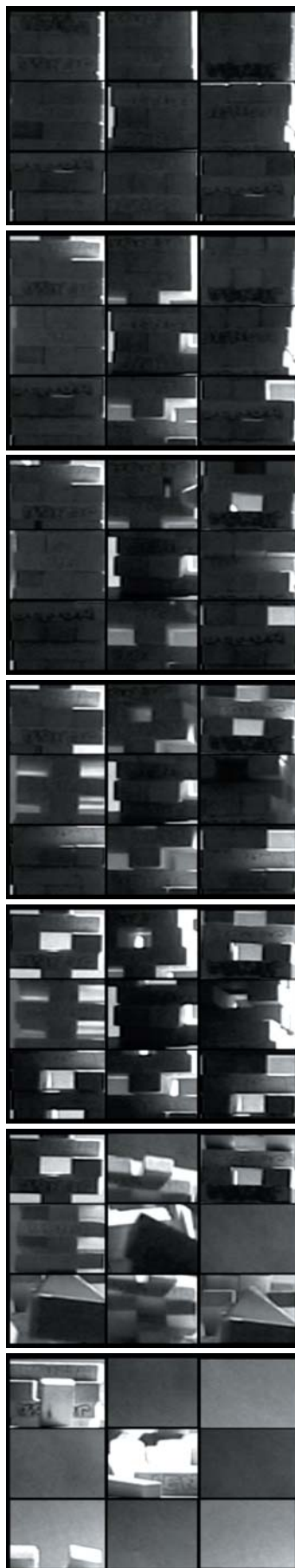
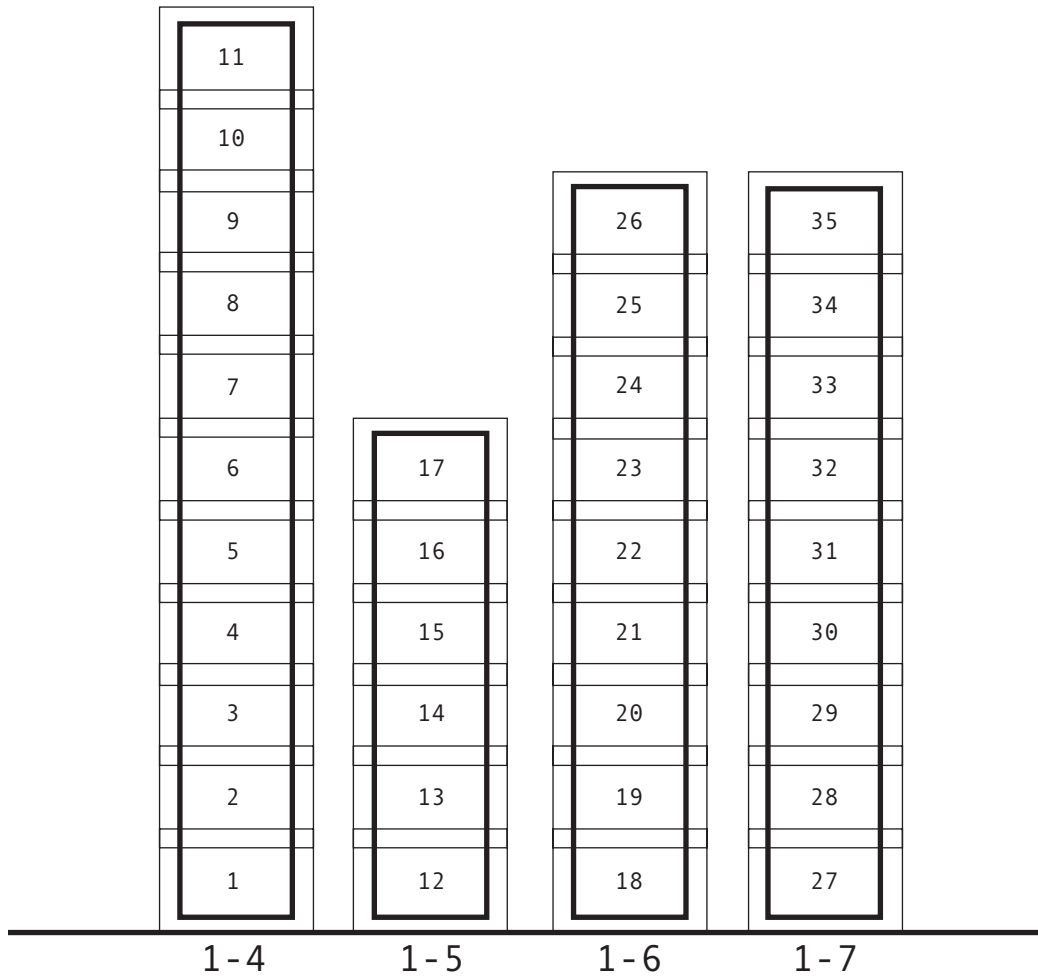


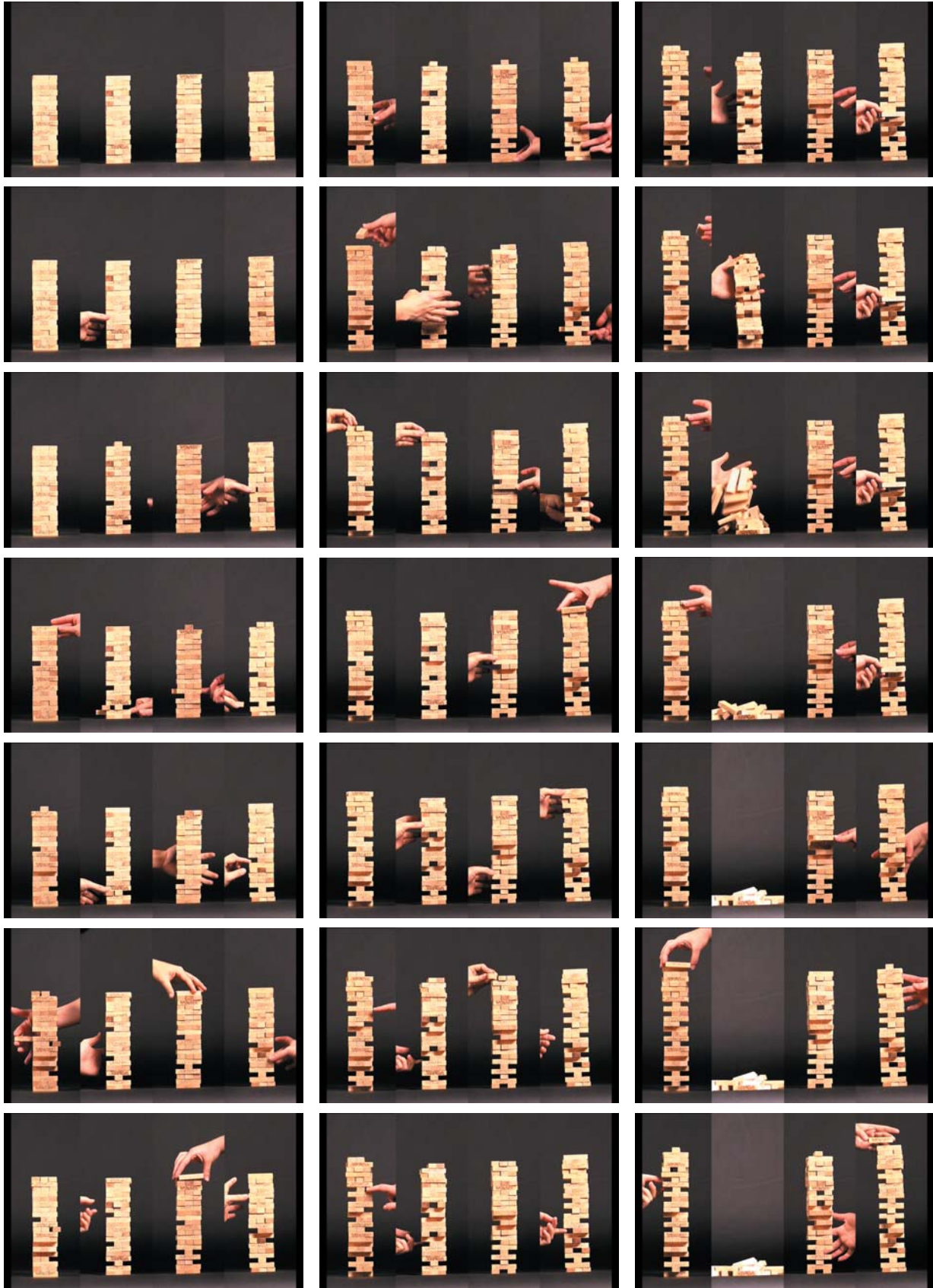
FIGURE 125 A-G . Left . Preliminary film tests . TEETERING TOWER.

FIGURE 126 . Right . Film Layout documentation . TEETERING TOWER.

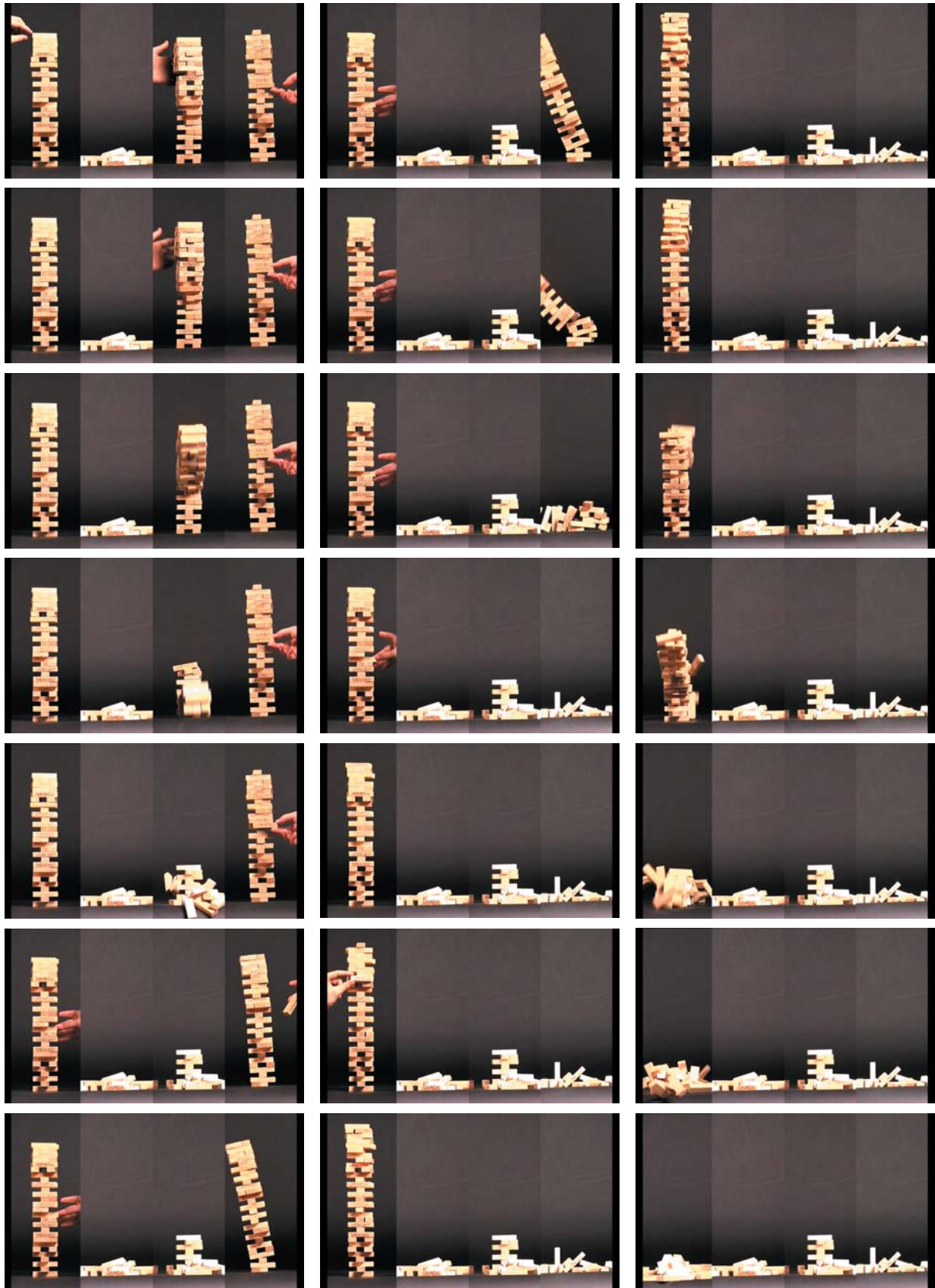
FIGURE 127 A-PP . Proceeding pages . Documentation of filming takes . TEETERING TOWER.

[1-6]26	[1-4]10	[1-6]22	[1-4]08	[1-4]05
[1-4]03	[1-7]32	[1-6]25	[1-7]31	[1-4]06
[1-4]09	[1-7]34	[1-7]33	[1-7]29	[1-4]07
[1-5]16	[1-7]30	[1-4]04	[1-6]23	[1-6]24
[1-4]02	[1-7]27	[1-4]01	[1-6]19	[1-7]28









TEETERING TOWER



**FIGURE 129 . DELUSION .**

This appendix is a video file of the film DELUSION.

The file name of this video file is “DELUSION.mpg”.

If you accessed this thesis from a source other than the University of Waterloo, you may not have access to this file. You may access it by searching for this thesis at <http://uwspace.uwaterloo.ca>

# APPENDIX B



**FIGURE 129 . DELUSION INSTALLED .**

This appendix is a video file of the film DELUSION INSTALLED.

The file name of this video file is “DELUSION INSTALLED.mpg”.

If you accessed this thesis from a source other than the University of Waterloo, you may not have access to this file. You may access it by searching for this thesis at <http://uwspace.uwaterloo.ca>

# APPENDIX C





**FIGURE 130 . SYSTEMATIC COLLAPSE .**

This appendix is a video file of the film SYSTEMATIC COLLAPSE.

The file name of this video file is "SYSTEMATIC COLLAPSE.mpg".

If you accessed this thesis from a source other than the University of Waterloo, you may not have access to this file. You may access it by searching for this thesis at <http://uwspace.uwaterloo.ca>

# APPENDIX D



**FIGURE 131 . IN OPPOSITION .**

This appendix is a video file of the film IN OPPOSITION.

The file name of this video file is “IN OPPOSITION.mpg”.

If you accessed this thesis from a source other than the University of Waterloo, you may not have access to this file. You may access it by searching for this thesis at <http://uwspace.uwaterloo.ca>

# APPENDIX E





**FIGURE 132 . TEETERING TOWER .**

This appendix is a video file of the film TEETERING TOWER.

The file name of this video file is “TEETERING TOWER.mpg”.

If you accessed this thesis from a source other than the University of Waterloo, you may not have access to this file. You may access it by searching for this thesis at <http://uwspace.uwaterloo.ca>

# APPENDIX F