2006-2009

STUDIO AMBITION

Design Research Laboratory

Published by AeDPress, 2009

College of Architecture and Environmental Design
California Polytechnic State University
One Grand Avenue
San Luis Obispo, CA 93407

www.caed.calpoly.edu

Publication of this book has been supported by Henri T. de Hahn, Department Head of the Architecture Department at Cal Poly, San Luis Obispo

Edited by: Stephen Phillips

Special thanks to: Katsuya Arai, David Stamatis, Christopher Nikkel, and Matt Kendall

Student Name

Cody Williams 08.02

Studio Year

Studio Quarter

Winter Quarter	01
Spring Quarter	02
Fall Quarter	03
Summer Quarter	04

by: Dr. Stephen Phillips, AIA

01. ACKNOWLEDGEMENTS

Acknowledgements:

I would like to thank Henri T. de Hahn, Department Head at California Polytechnic State University, San Luis Obispo for supporting this book project, and faculty members Michael Lucas, Terry Hargrave, and Thomas Fowler III for their encouragement.

I would also like to acknowledge the formative work of architects Greg Lynn and Ben van Berkel whose books Animate Form and Move fostered my curiosity in computer animation generated design and its impact on architecture theory and practice. Lynn's and van Berkel's work coupled with powerfully motivating theoretical questions pursued by Beatriz Colomina and Hal Foster at Princeton University in the early 2000s drove my studied interest in the work of Austrian-American architect Frederick Kiesler who became the main protagonist of my dissertation completed at Princeton University in 2008 and an inspiration for my current research as a design professor.

Theory inspires practice in a non-linear manner and at times in inexplicable ways, and my choice to study Kiesler was admittedly tactical, as his obsessions aligned so fully and curiously with contemporary design interests at the turn of the 21st Century. From my research I found that Kiesler's own ambitions originated and were fueled through study of Hans Richter's and Viking Eggeling's early animation films. His interest to create endless spaces as inspired by Eggeling's and Richter's research in animation and the writings of Henri Bergson in Creative Evolution served as a point of departure for my recent preoccupations in architecture.

As Herbert Muschamp argued in his obituary to Frederick Kieser's widow Lillian Kiesler in the New York Times, 2001: Frederick Kiesler "is a model for those who wish to pursue architecture as an 'alternative practice'. Somehow, he made a go of it. Diller and Scofidio, Raymund Abraham, Greg Lynn, Wolf Prix and Eric Owen Moss are among many independent architects today who stand on Kiesler's shoulders… Many architects are proceeding on the route he opened up. Besides those I've mentioned, the group includes Tod Williams and Billie Tsien, Steven Holl, Frank Gehry, Philippe Starck, Lebbeus Woods and Thom Mayne." My studio--Studio Ambiton--is an ambitious attempt to continue within this tradition. It aims to educate students to have the drive, will, and capacity to pursue experimental design research that will enliven building practice.

Not intended to be outmoded or subject to the limits of historical interests, however, inspiration is continuously fueled by nearby friends whose contemporary work I admire including: Thom Mayne, Hernan Diaz Alonso, Raveevarn Choksombatchai, Neil Denari, David Erdman, Georgina Huljich, Lisa Iwamoto, Marcelo Spina, Craig Scott, and Tom Wiscombe, among many others whose work I follow or my students choose to follow at the thesis level. I am of course indebted to my students who once excited by a topic never cease to engage in greater depth, curiosity, and ambition.

Ultimately this work would never have happened without the support of the many great faculty and students at California Polytechnic State University, San Luis Obispo, and the array of architects, friends, and colleagues who have given their time to participate on our reviews. Thank you.

by: Dr. Stephen Phillips, AIA

1

02. PREFACE

Preface:

The title of our studio--Studio Ambition--is neither devoid of humor nor lacking intention. As well remarked during our final review at the LA Forum for Architecture and Urban Design in Hollywood, May 2009, there was little question that much of the work designed and presented by our studio (particularly at the thesis level) is ambitious in size, scale, scope, character, and experiment. This is admittedly both promising and self-defeating.

There is great hubris in any effort to conceive expansive cities, new urban terrains, or vast building enterprises with such little time, support, and experience possible within an undergraduate studio. Most young architecture students do not have the capacity to design and model a well-known building type, let alone create new complex and vast territories. Even the design and construction of a simple house often requires several staff, a client, consultants, contractors, subcontractors, planners, and inspectors, alongside many years of architectural experience to be conceived and completed well. How then can a student possibly design an institutional building let alone a city effectively by themselves even with the support of an instructor and a few consulting advisors? Architecture is simply too complex, and even with the added speed and efficacy of the computer, building design and construction is too collaborative of a process to be achieved on one's own.

Yet whether foolish or irresponsible, in imagining outrageous and impractical building schemes, the design studio can support surprisingly fresh, optimistic, and inspiringly liberating points of view. Experimental design arguably puts pressure on the building profession by supporting young professionals to aim toward greater ambitions than merely capitalizing on the need for basic human shelter through endless forms of production repeated en masse. Studio Ambition offers something entirely different to the practical agenda of normative training of universally desirable skills. This studio aims to create and support the value of having an ambition that makes a difference through the act of making and producing architecture, whether digital, analog, visual or physical. To have an ambition stated or otherwise that actually aims to do something can add enormous value and meaning to the contemporary world.

Ambition is a projective point of view that governs the way in which we make decisions and guides the process and method of our research goals and interests. To have ambition—to be ambitious—is a difficult concept at times. Ambition can seem to some as an obsessive trait, while to others, entirely magnanimous and altruistic. Ambitious people who support goals that better the world and the environment, inspire and motivate progressive change in the world. The field of architecture is built upon a long history of strong creative ambitions.

by: Dr. Stephen Phillips, AIA

1

03. INTRODUCTION

"I see a lot of work in architecture schools all over the world, and I am amazed by its similarity but also encouraged by its intelligence... [E]very architecture school has idiosyncrasies that have to do with its own particular circumstances. For example, I just got back from the Cal Poly school in San Luis Obispo, California [,…and] the kinds of communication networks that spread computer diseases or viruses are equivalent to the contemporary architecture virus going around as Maya begins to take over. But San Luis Obispo has a long history of wood model-making and so despite their technological allegiances, and so as to not risk getting fired or reduce their likelihood of tenure, the young faculty has to show some nominal loyalty to the school's tradition by continuing to make their models from wood. As a result, it seems the staff and students have lost sight of the digital prototyping methods that they had set out with, due to their ecological circumstances. But the intelligence of adding wood modeling to Maya will matter when the work begins to be disseminated. If you pick up a magazine on string theory, there may be 50 articles all about exactly the same problem - very small variations, most of them being wrong, but each of these wrong variations closes off pathways that then no longer need be taken. Every once in a while something partly right happens and basically that's how every field advances."

--Jeffrey Kipnis

Introduction:

In Fall 2007, Jeffrey Kipnis participated as a speaker in our Hearst Lecture Series at the California Polytechnic State University in San Luis Obispo. As Director of the Hearst Lecture Series, I had the fortune to host and introduce him to our school. Kipnis saw the work of our studio's students Greg Taylor, Wilson Rodas, Eric Vergne, and Chris Nikkel, and discovered innovation in their methods. Whether by accidental mutation of surrounding circumstance, or a calculated effort, the studio emphasized a combination of digital and analog practices, which has arguably produced valued results.

Similar to most architecture design curriculums, the studio was invested in Maya, Rhino, and 3D Studio and the promises of advanced computer animation and scripting technology. As a former lecturer at SCI-Arc, UC Berkeley, and CCA, in addition to also teaching as a Visiting Assistant Professor at UCLA at the time--our studio was designed with clear allegiances to similar contemporary design interests taking place at many schools of architecture, internationally. Additionally, as a PhD candidate at Princeton University School of Architecture at the time, I had been intimately studying the history and theory of ideas relevant to contemporary computer design when I arrived as young faculty member at Cal Poly in 2005. Afforded the freedom to develop ideas relevant to contemporary technology with practically any digital computational software available, but without the fabrication tools needed to ultimately fulfill those ambitions something totally unexpected took place.

At Cal Poly, almost all the faculty and students have a deep love for model-making and building craft. Working with our own historic formal, technological, and material interests, the studio alongside support from several other instructors developed research that if ambitious digitally, was grounded analogically, and at times fairly pragmatic. Particular to Cal Poly is the strength of its history, technology, engineering, construction, and practice sequences that teach students needed skills and precedents of architecture, which in many ways liberates the design studios to pursue experimental paths. As a large architecture school (reportedly second largest in the nation) there are options for all interests. In addition, design studios have the freedom to experiment and put pressure on the practical side of a student's training. For my part, I see teaching studio as an opportunity to explore challenging and liberating terrain with talented young designers—independent of pressures from clients or the limits of accepted building practices. As it is impossible for design studios to accomplish the level of comprehensive design expected of a learned and experienced architecture office, the focus of my undergraduate studios has been the development of contemporary architectural language skills alongside complex site and program studies through a series of courses taught from third year to fifth year that emphasize computer animation generated design alongside productive analog making, tectonic skills, and design research relevant to contemporary architecture and urban design.