As a thesis studio, Studio 400’s concerns lie in the development of creativity, inquiry, personal endeavor, process, conceptual ideas, and spatiality. Thesis is a yearlong study regarding a visionary thesis of your choosing and the consequent evolution of that idea through research, experimentation, design, and design development. As a studio we will study ideas of queries/creation/narration; making/tectonics/historic collaboration; mapping/site historically/figuratively/dimensionally; program theoretically/graphically; and installation/collaboration in Fall Quarter 492 Seminar. These topics will be developed as initial essays and constructions based on your own thesis statement. Explorations through research and writing for 492 will be developed as physical constructions for Design Studio constructions in Fall 481. The rest of the year, Winter and Spring, will concentrate on the conceptualization of your thesis as an architectural manifestation, and its continuous physical development.

Studio 400 regards a place and pursuit/formulation of the student's own voice in architecture. Through research methodology, investigations of scale and material experimentation, and a studio-collectively designed installation, the student develops an individual thesis translating research and concepts through making, programming, and occupying in order to define an architectural design of purpose and detail.

I am very interested in the individual projects within the studio but also the total experience and the creation of something beyond those parts, sum of the total being greater than the sum of the parts. Together the collective action of the studio creates a total of amazing depth. To augment this idea the studio as a whole creates a class installation reflective of the total. The studio seeks to develop models of complexity in which all participate. In this way all participate in the many, and the organization of the studio facilitates the process of becoming. This past year the studio built the installation SHOWROOM for their BookShow in January 2016, demonstrating a collective consciousness relying on the different strengths of the participants.
Studio 400 is interested in the spatial experience, keenly aware of change in culture over time and wishes to address the “discovery of new paradigms of haptic interaction.” As the modern becomes digital in the Cal Poly setting adjusting to digital means of generation and fabrication, it is imperative that these methods are a part of the process of the studio and that we explore new means of creation and representation using digital technologies and analogue means, 3d printing and sketching. The evolution of design is imagined through machining. This studio opens a discussion of the interaction between user and architect/building as conceptualized through narration (determining your main ideas and the potential for the story they will tell), making (in terms of early scalar development, modeling, construction), mapping (documenting the site and ideas and potential of site), programming (in terms of diagramming, graphing, charting), and occupying (in terms of installing, full scale mock-ups, detailing). The required reading texts of the seminar work hand-in-hand with the studio assignments – vellum, site exploration, program, experiments, and installation.

The last 100 years have expanded our collective viewpoint allowing thinking beyond our own isolation and is preparation for a global view and acceptance of technology based on a global view, such as the internet. Technology is now viewed as salvation. The oil embargo of the 1970s embedded the first seeds of energy consciousness whose current response is sustainability in relation to the threat of diminishing resources and global warming. We are living in a state of diminished resources – lack of renewed water sources from a multi-year drought, oil reserves in a state of flux and fracking – and in a state of perceived abundance – sunlight, wind, and ocean water. How does architecture dream a solution to impending natural and man made threat?

Architectural thought and theory has changed with regard to circumstance, innovation in technology, and our understanding of our world. By circumstance I refer to manmade or natural disaster out of which arises complex thinking but also innovative solutions. Innovations in technology are obvious but continually changing, from the steel in the Eiffel Tower to the ramifications of machining and algorithms. The complexity of our world is revealed through technological advances, which in turn change our perception and our ability to perceive. Architectural thought developed from non-architectural objects develops complexity. For thesis it is important to re-think the possibilities of existing technologies, to place them in unanticipated conditions, to change the scale at which they perform. In this manner re-conceptualizations of future development are possible.
Innovations in technology chart our passage through the past decades as we respond to life changing solutions brought about by changes in materials, such as steel, plastics, and glass, which brings about changes in function and how we live, particularly in urban areas, with a throw away culture, and with the connectivity of computers. These in turn cause changes in our perception of the world through different scales such as space exploration and medical exploration. These changes in the way we see and experience affect our understanding of our own situation, and in turn is reflected in the way we create art. Warhol used advertising and the printing press to question our understanding of art. Similarly Venturi elevated popular culture into the architectural milieu through his writings on Las Vegas, Lebbeus Woods redefined crisis and architecture and its possibilities, and young architects everywhere turn new materials into spatial installations questioning both our means of construction and contemporary notions of space and occupancy.

As we look architecturally back on the last 50 years we see the development of a technologically responsive architecture that has gone through the growing pains of retro styles in search of a solution to technological advances and new ways of understanding. As the computer has allowed us to visualize a new architecture, it also now enables us to form different developmental paths toward new ways of construction and design processes. The question becomes how do we develop a process whereby the haptic and virtual collide in order to form an architecture of diversity, the many, conceptually pragmatic yet responsive to the changing condition. Per Greg Lynn, how do we form a “mobile, multiple, and mutable” 2 architecture?

It is the intention of Studio 400 to develop a culture of acceptance in which the studio works as a unit to research and develop individual projects through individual writing, discussion of architectural discourse, shared speculation, field trips, and studio and individual installations. It is my intent that we study the theory of the last 100 years, concentrating on the past 50. For this we will review architectural solutions and read specific articles regarding topics from the inception of architecture through current processes. This is a studio concerned with the thinking about architecture, but also about the process of design.

_Principles for the Development of a Complete Mind: Study the science of art. Study the art of science. Develop your senses- especially learn how to see. Realize that everything connects to everything else._ – Leonardo da Vinci

* Greg Lynn, “From Body to Blob,” _Anybody_
Description
In the Fall Studio 400 will not only develop thesis books graphically but also the methodology in which to refine the thinking necessary to define the transition from written word to material/spatial object. In the Seminar, Arch 492, we will reflect on the architectural design and theory of the recent past, specifically looking at readings regarding: narration and representation; making, detail, and creation; mapping and site; program; and installation through collaboration. These topics will inform a method of problem development through readings, essays, and discussions.

In Fall Quarter Design I would like to study the analysis of the spatial exploration of your thesis problem through – representation of narrative; details as defined through a Vellum furniture piece; redefining the site through mapping; programming the organization of the problem; and finally collaboratively creating the initial design of the BookShow (which will be installed at the beginning of Winter Quarter). These topics are intertwined and we will explore them through readings and spatial assignments.

The topics of discussion in seminar are means with which to engage architectural issues in your own project. They will inform your thesis and your ability to communicate difficult concepts into written texts and vice versa – to learn from difficult texts. The thesis itself is a way to define what your project is, the issues involved in its proposal and potential, and the methodology of research and process that begins to develop your concerns. In addition, your thesis will define your program and technological concerns. The written thesis is the product of Arch 492, but it is informed and facilitated by the creative acts that generate the work of Arch 481.

Fall 492 relates to the general ideas of current theory and the ideas of thesis. While you will be developing the specific details of your project, we as a class will be looking at and discussing the larger view of architecture and its relation to site, process, program, and detail.

Every project develops their own general issues out of a query of architectural significance. It is important for thesis to develop problems which can be researched historically, perceptually, theoretically, and physically. Problems of architecture are not only related to architecture as a topic but to site, energy, larger issues of region – both physical and metaphysical, culture and time. Issues of currency suggest actions which occur in almost every project within the studio. Generalized topics are made specific to site, program, and the desires of the designer. Making, programming, and occupying affect the conceptualization, fabrication, form, use, detail, structure, and development of all projects.
In Fall we will experiment through both studio and seminar with scale, material, program, and site trying to find new ideas and concepts within emotion, haptic response, mapping, and diagrams. You will be looking at and designing responses to the physical nature of your project in design studio while researching your issue, or idea of importance, through a methodology of digital and physical searches, essays, and case studies. In total, the sum of the projects and research will be your thesis book. As a collective the studio will then design an installation for the beginning of winter quarter to showcase the thesis books.

In Arch 481, Fall, we will be looking at areas of speculation by researching and constructing material aspects of theoretical issues. In the past my studio has developed material experiments in which to study not only the issues of making but to construct the issues of the project. In design studio we will be studying site, material, and program through Vellum, detail experiments and challenges to the quality of material, site installations, and discovery of emerging patterns relative to program.

In Fall we will experiment with the idea of scale in design studio. We will have scale material experiments that relate to the finer details of your future project. To begin you will construct an art book making visible your initial narrative or manifesto. After that we will be participating in Vellum with a furniture piece that will relate to your thesis topic. This will be a 1:1 scale designed and constructed prototype of functioning furniture. In the past Emily Saunders was awarded a prize for her backpack lamp/pillow, Aaron Belzer was awarded for his stool, Ben Hait was awarded for his lamp, Madison Detro was awarded for her table constructed out of shirts and stabilized with resin, and the year before Tracey Coffin won based on her lazar cut curtain and Jonathan Giffen was awarded based on his table of plastic welded chair pieces. After Vellum we will move on to particular experiments of design based on your thesis and topic.

In Winter we will continue the study of contemporary issues as they relate to your personal project. Besides the group installation project, Thesis BookShow, you will be developing architectural issues of your project: form, circulation, structure, and environmental systems, based on your architectural concept. Ideas of thesis, no matter how creative and extreme, need to be translated into a form that is broadly defined as architecture. While I progressively define architectural form, ideas can be substantiated through architectural representation.
In the Spring we will continue the development of the project at the level of design detail and large scale decision making. In general the work produced in spring is large scale models, digital renderings, and architectural representations such as floor plans, sections, elevations, and details. The act of model making at large scale is the closest, short of 1:1 building, that you will get to spatial development. I think it is very important for you to see the consequenc-es, at least physically represented to scale, of your spatial design decisions.

In addition we will participate in the four all-of-fifth-year displays throughout the year – Abstract in Fall, Section in Winter, Detail in Spring, and Final Show in Chumash at the end of the year. For the past two years all of the fifth years shared a four day critique in which every project was reviewed and we will do this again this coming Winter. There will be other critiques throughout the year, formal and informal, in studio and out of studio.

Field Trips are up for discussion and generally decided on by the studio. Studios in the past have been to Japan, China, Mexico City, and Boston/New York. In addition this year I would like to go camping somewhere early in fall – Sequoia, Pinnacles, Yosemite, Big Sur – the studio will decide. Last year the studio chose to go to the Architecture Biennale in Chicago and then on to NYC in November. This was the optimal time for a thesis field trip for I think the field trip has the potential to affect the studio outcomes when it occurs earlier in the year. This coming Fall I suggest we quickly decide on a field trip location and time during Fall quarter. The university demands advance notice especially for overseas trips - so we need to decide where and when quickly.

Courage is an important factor in any creative effort. It can be most active when knowledge in too early a stage does not narrow the vision. – Anni Albers

The studio seeks students who wish to explore the development of use, organization, materials, and fabrication within architecture. Proposed projects will result in the design of new construction, as additions, manipulations, interventions or new ideas. I am open to original ideas for thesis. For me thesis is exploration and problem solving.

I am hoping that you all were able to view last year’s studio show in Berg and the all-of-fifth-year show in Chumash. If you missed it please look me up on Facebook and view the designs in my photo albums. If you have any questions please contact me – klange@calpoly.edu

Thank you.

If it’s possible, you invite somebody with a toolbox who can give answers. You call the architect when it’s not even clear what the question is. - Mark Wigley
Innovation – the idea of finding and solving a problem, or in the case of an architectural thesis – of making an architectural problem out of a physical or social problem. Examples of past thesis ideas:

ESaunders 15 - Physical remains and digital replication of modalities on site leave an echo as they become absorbed into the system and its algorithm; a habitat for resource production, biopolitical output, and social intervention.

PCordelle 15 - Re-inform the pooling of cultural, intellectual, and social energy existing on the US/Mexico border in the manner of inclusion and prosperity.

DRamsey 15 – A machine which incubates perpetual research and design from which revolutionary ideas emerge, constantly allowing adaptive frameworks for innovation and introductions of new and useful technologies, architecture, and products from the raw material of the Great Pacific Garbage Patch.

BWilliams 14 - The project places the frame-and-skin building typology in the liminal threshold, where standard frames, their mechanical components, and continuous skin become other. The patchy nature of these forms implies a discontinuous and irregular aesthetic, which is opposite of the continuous surface nature of the previous skin and-frame typology.

BLuce 14 - To use the built environment as a catalyst to initiate the state of curiosity. Through sensory stimulation and the introduction of the ambiguous exists design opportunities for experiences that create greater well-being and meaning in life.

HPhung 13 - Investigate and promote a closed-loop networked system powered by economic, ecologic, and energy drivers to intervene existing infrastructure.

CBayley 13 - Through an investigation of the body’s relationship to cosmetic self-modification, seek to develop an architecture which engages ornamentation both graphically and spatially.

BSampson 13 - A globally applicable issue of abandonment in the contemporary urban condition is addressed through a large visionary project that fills the social, infrastructural and public void that is downtown Los Angeles.

JHotho 13 - By creating systems that react personally to each user, but also independently due to other user interactions, technology can act as a catalyst for human interaction through the digital environment.

JVarholick 12 - Models are named entities which allow for transferable meaning, however psychological or subjective. Models also establish token a priori and types a posteriori. That is, ideas of ‘type,’ the model itself is formed of instances which must be experienced first. This distinction implies that models are always approximate, imperfect, as they are almost always informed by an incomplete set. The knowledge gained through empirical process will be in the form of models within propositions. Therefore, this Knowledge will always be approximate. We may only approach accuracy with more comprehensive and particular/detailed observation.

KLin 16 – Illusion will challenge the conventional architectural organization and address the ambiguity of space, the uncertainty of space through the creation of illusion.

KRichter 16 - Through the pairing of psychological theory and architectural manipulation, one can begin to re-envision the idea of embodied therapy and confront the epidemic of psychological instability constructed by our society.