work excerpt

JUNIOR
ARCHITECTURAL
DESIGNER

Anthony M Giannini
Master of Architecture 2012 *University of California, Berkeley* *AIA Henry Adams Award*

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www.labAMG.com

7 September 2012

Hiring Manager
Diller Scofidio + Renfro
601 W. 26th Street, Suite 1815
New York, NY 10001

RE: Junior Designer/Architect Position

Dear Hiring Manager,

I would love to be considered for a junior architectural designer position at Diller Scofidio + Renfro. This past May I was honored with the top student architectural award, AIA Henry Adams Award, upon receiving my Master's of Architecture degree from the University of California, Berkeley (UCB).

Through extensive research during the past couple years at UCB, I have developed an expertise in digital design, including parametrics, animation, responsiveness and visualization and computer-aided-manufacturing including 3D-Printing and fused-deposition-modeling. I passionately believe in the power of digital design and its implications for improving the way in which architecture is conceived of and fabricated. Furthermore, while working on my Bachelor of Science in Architecture degree at the University of Idaho, I gained an exceptionally strong practical foundation of architecture including building construction, material properties and architectural representation. This technical knowledge, coupled with extensive building time on construction sites has allowed me to understand the complexities and details of design implementation.

I have acquired professional experience with a couple of award-winning architecture firms in California during the past couple years including Endrestudio and Veev Design. Duties included construction documents, RFI's, business development, office management, CAM modeling, 3d-modeling, visualization and conceptual design. I have substantial knowledge of a wide variety of computer software, which is outlined in my CV. Beyond the attached Work Excerpt, it is imperative that you see my time-based visualization and I request that you please visit my webpage at www.labAMG.com to see a handful of my architectural animations/videos.

I am currently working as an Independent Contractor to local firms in the California Bay Area as a designer and visualizer where I have proven the efficiency of my workflow. I seek a full-time opportunity at your pioneering firm in NY where I can be immersed in a challenging and rewarding workplace that enables me to develop as an aspiring architect. Thank you for your consideration.

Sincerely,

Anthony M Giannini

Anthony M Giannini

4920 Coronado Ave, Oakland, CA 94618 USA
T: +1 510.516.GIAN E: labamg@gmail.com

www.LABAMG.com

Education

2010-2012 **University of California, Berkeley** *College of Environmental Design*
Master of Architecture [M.Arch] May 2012
AIA Henry Adams Award

2005-2010 **University of Idaho** *College of Art & Architecture*
Bachelor of Science in Architecture [B.S.Arch] May 2010
Summa Cum Laude - 4.0 GPA

Experience

2012 [current] **Avila Design** *Berkeley, CA*
Work as an Independent Contractor for architectural design and visualization under expedited conditions.

2012 [current] **University of California, Berkeley** *Berkeley, CA*
Commissioned to design and fabricate a folded aluminum wall in the UCB CED Graduate Office using the latest CAD/CAM technologies with Veev Design.

2011 [summer] **Endrestudio Architects|Engineers** *Emeryville, CA*
As the direct assistant to the Principal, Paul Endres, FAIA, SE, PE, I helped facilitate the everyday responsibilities including construction documents, RFI's, office management, business development, design and visualization.

2008 [summer] **Stonebridge Homes LLC** *Coeur d'Alene, ID*
Computer Aided Design work and site anaylsis on a 3,600sf custom home.

2005-2008 **Parkwood Business Properties** *Coeur d'Alene, ID*
Parkwood develops and maintains business parks. Duties included an assortment of building construction and maintenance.

Honors + Awards

2012 AIA Henry Adams Award *UC Berkeley Architecture Highest Honors*
2011 2012 Berkeley Circus Merit Award *Advanced Option Studio, UC Berkeley*
2010 2nd Place: ElliptiGO World Headquarters Design Competition *Elliptigo Inc.*
2010 Jesse Buchanan Plaque Honors *Honors undergraduates with the highest possible scholastic record at the U of I*
2009 1st Place: 39th Annual ICMA CMU Fire Station Design Competition
2009 2nd Place: ASME Lounge Redesign Competition
2009 2nd Place: UI Engineering Studio Redesign Competition
2003 1st Place: NASA Space Consortium Design Competition
2002 1st Place: Lyon's Club Art Competition
2002 1st Arbor Day Logo Design Competition

Scholarships + Grants

2012-11-10 (5) UC Berkeley Architecture Department Awards
2012-11-10 UC Berkeley Graduate Division Award
2010 Malcolm Reynolds Prize UC Berkeley
2009 Arthur L. Troutner Architecture Scholarship
2009-08-07 Burnett Access Scholarship
2009-08-07 Idaho Opportunity Scholarship
2008 Lloyd E. Stalker Architecture Scholarship
2006 Academic Competitiveness Grant Scholarship
2006-05 Idaho Robert Lee Promise Scholarship
2005 University of Idaho Achievement Scholarship
2005 Idaho Academic Scholarship

Publications + Exhibitions

2012 **SOURCE** *Exhibition of thesis work at the Headquarters Gallery in Berkeley, Ca*
2012 **FuturesPlus.net** *Thesis work featured, 7 August 2012*
2012 **ARQA.com** *Studio work with Pablo Zunzunegui, Material Intelligence was published Aug 1st, 2012*
http://arqa.com/esp/proyectos/material-intelligence.html
2012 **Maker Faire Bay Area** *Exhibited thesis work, UCB Group received the Editor's Choice Award*
2011 **2012 Berkeley Circus** *Exhibition of outstanding student work, UCB CED*
2010 **"Interactive Literacy Center a Fun Path to Reading, Learning"**: *Studio work was featured.*
2010 Boise State University College of Education News: April 2010.
2009 3-Page Feature in the Quarterly magazine: **HERE WE HAVE IDAHO** *"A Student Perspective: Genius and Tenacity Buttressed by Scholarships"*. Donna Emert.
2009 **University of Idaho College of Art & Architecture Website**
Featured as a top architecture student at the University of Idaho

Study Abroad

2011 China: *Beijing, Shanghai, Chengdu*
Invited to participate in the international design competition, Vertical Cities Asia
2009-08 England: *London, Brighton*
2009-08 Italy: *Venezia, Firenze*

Technical Skills

Computer Modeling
Rhinoceros 4.0 - 5.0 *advanced modeling techniques, Plug-Ins: Grasshopper, Elk, Firefly*
Grasshopper *complex parametric modeling*
Modo *advanced sub-surface modeling techniques, advanced animation & rendering*
3D Studio Max *advanced photorealistic rendering Mental Ray, animation, daylighting analysis*
AutoCad Architecture
Revit Architecture
Sketchup
Climate Consultant *climate analysis using EPW*
Ecotect *climate simulation and analysis*

Adobe
Photoshop *advanced and realistic graphic and photo manipulation*
Illustrator *advanced vector-based diagrams & graphic design*
In-Design *professional-quality page layout and organization*
Dreamweaver *basic web design*
After Effects *advanced video compiling, editing and effects*

Animation/Video Motion-Tracking
3DS Max *advanced photorealistic rendering and animation with MentalRay*
Syntheyes *advanced motion-tracking for placing computer generated models into real video footage*
Modo 601 *advanced animation and rendering techniques for professional quality video*
Adobe After Effects *advanced skills in compiling and editing real video footage with CG.*

Computer Aided Manufacuring
Laser Cutting *advanced skills and knowledge in material properties machine maintenance*
3D-Printing *advanced knowledge and skills with Z-Corp 3D-Printers*
Fused Deposition Modeling *advanced knowledge and skills with plastic extrusion printers*

References

Paul Endres *FAIA, SE, PE, Principal at Endrestudio*
T: +1 510 898 6960 E: info@endrestudio.com
4053 Harlan Street Suite 113, Emeryville, CA 94608 USA

Ronald Rael *Associate Professor at University of California, Berkeley - Principal at Rael San Fratello Architects*
T: +1 (510) 207-2960 E: r@el.net
2200 Adeline Street Suite 340, Oakland, CA 94607

Raveevarn Choksombatchai *Associate Professor at University of California, Berkeley - Principal at VeevDesign*
T: +1 415 621 6597 E: info@veevdesign.com
49 Grace Street, San Francisco, CA 94103

RE·FUSE

“re-fusing refuse to create performative architecture, whereby alleviating societies of their state of refuse”

Fall 2011 - Spring 2012
University of California, Berkeley
Master’s Thesis
Instructor: Ronald Rael *Rael San Fratello Architects*

Our consumer-oriented society has created a shifting paradigm in which trash is now our largest renewable resource: a new non-natural nature. Paper and plastic comprise over 50% of the globe’s landfill. When this waste is perceived as a new-natural resource it can be mined to produce the building materials of the future. It is imperative that we integrate this ubiquitous resource into emergent rapid manufacturing technologies coupled with a real-time, hands-on-digital approach. Americans alone, throw away enough office paper to build a 12’ high wall from LA to NY and enough plastic bottles to circle the globe 4 times each year.

re·fuse explores how paper and plastic can be transformed into multi-performative materials—cellulose fiber and extruded recycled plastics, how these materials, when calibrated through digital design and fabrication processes, can create architectural skins that respond to views and light and create insulation and water proofing, and proposes a new vision for additive manufacturing at large scales.

Thesis Review 05 May 2012
UC Berkeley
Wurster Hall New Gallery
Review Committee

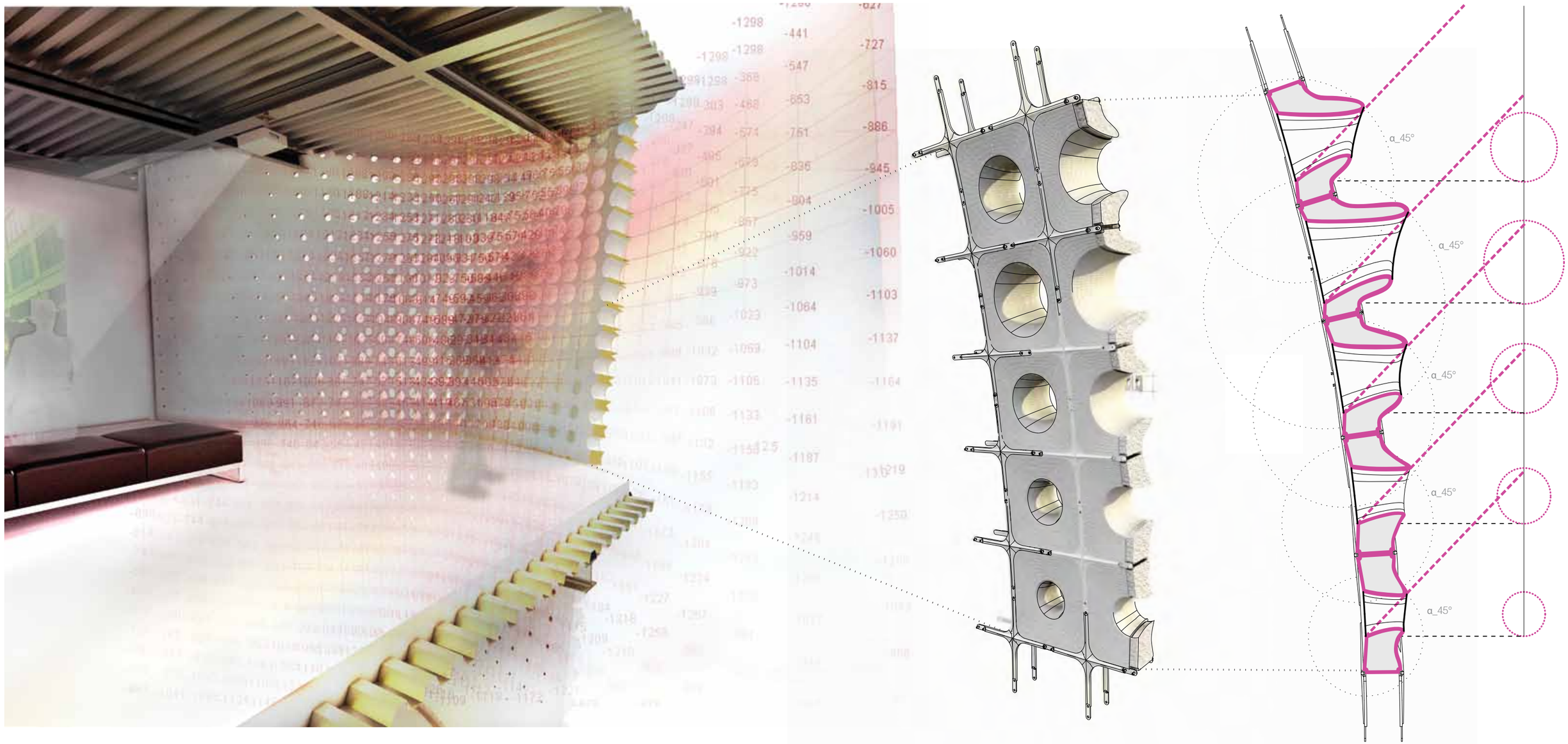
[RR] Ronald Rael	Thesis Studio Director, UCB
[LC] Leigh Christy	Writer/Architect
[PT] Peter Testa	Testa/Weiser SciArch
[JA] Javier Arbona	Academic/Intellectual
[DG] David Gissen	Experimental Historian, CCA
[JS] Jill Stoner	Professor/Chair of Graduate Adv, UCB
[JB] Joseph Becker	Curator SF MOMA
[MK] Melanie Kaba	Theorist Researcher, UCB
[DF] David Fletcher	Professor, CCA
[TB] Tom Buresh	Chair, Department of Arch, UCB

Using the readily available paper and plastic refuse on site, many developing civilizations can create an inversion whereby alleviating the negative impacts of refuse and creating beautiful architecture.

DEPOLOYABLE MACHINES PRINT BUILDING MODULES IN DEVELOPING COUNTRIES

FALL 2011- SPRING 2012 RE•FUSE MASTER'S OF ARCHITECTURE THESIS

PERFORMATIVE FACADE: 3D-PRINTED PLASTIC AND PAPER MODULES



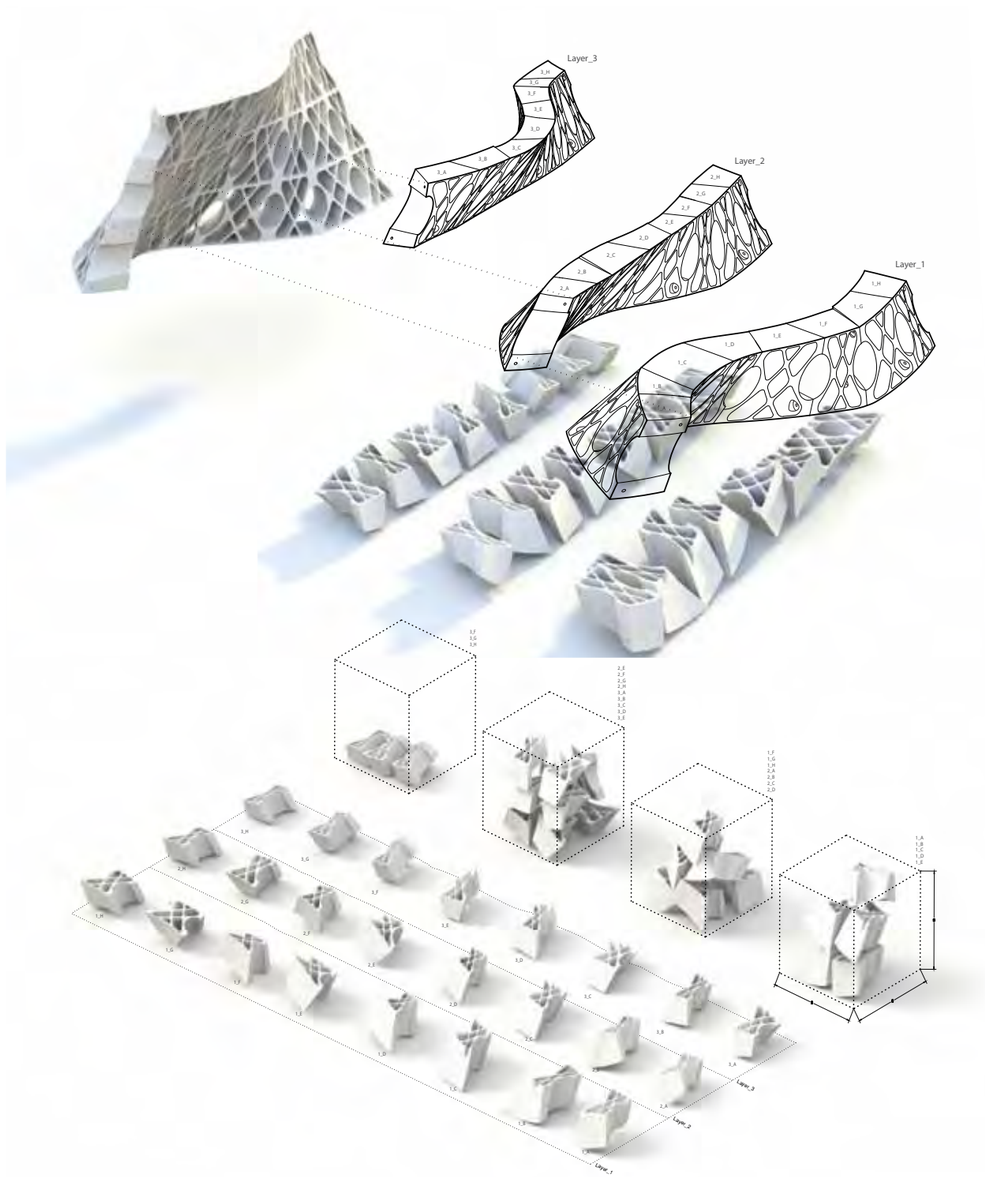

Talbots
Kearny
charles SCHWAB
Crate&Barrel
CB2
282

Left: 1:1 scale, **re·**fuse prototype wall. Fused-Deposition-Modeled recycled plastic shell, infilled with medium-coarse, binded waste paper. Each component is unique, being shaped by the grasshopper script to optimize sunlight control of the interior space. Actual dimensions: 36"W x 20"H.

Top: Fused-deposition-modeled structure based on structural bird bone. Printed within most 45-degree extrusion limits with a 2-loop, 1mm wall thickness. Final prototype to be infilled with bonded waste-paper. **Bottom:** 3D-Printed concrete form based on highly efficient sectional bird bone with the goal of minimizing material.

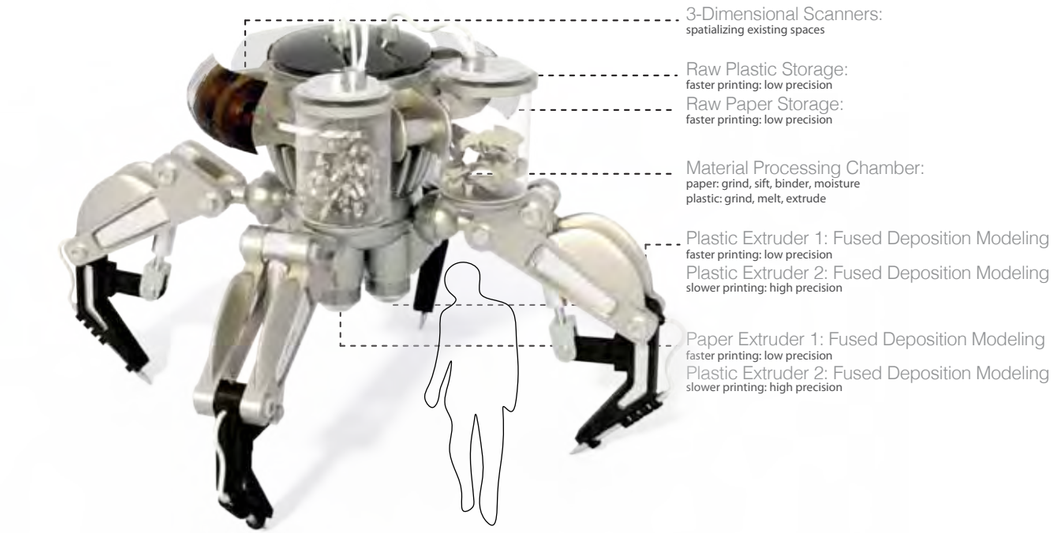
FUSED DEPOSITION MODELED RE-FUSE PROTOTYPE WALL

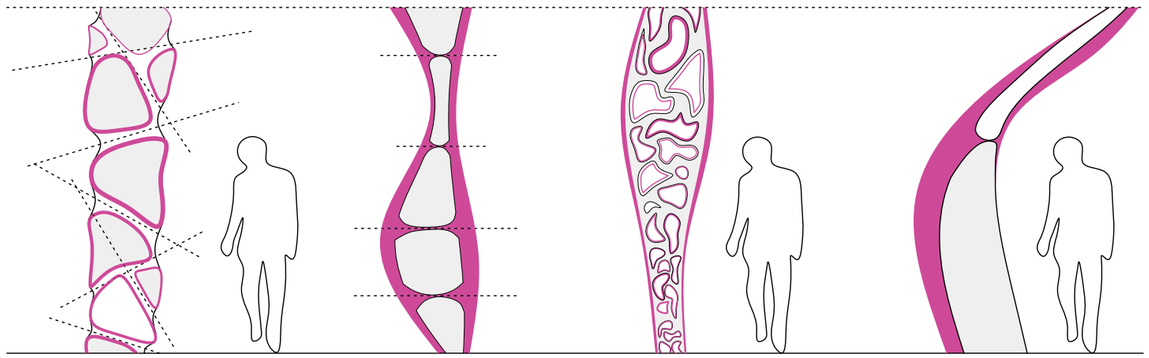
Below: Exploded diagram showing the digital disassembly of this variable component wall. Each component is unique with it's own label for reassembly. **Bottom:** Diagram showing the relationship between each unique module of the wall and how they are automatically laid out and fitted into the Z-Corp 8" x 8" printing beds for rapid manufacturing. **Right:** The realization of the digital diagram below: 3d-printed concrete prototype wall .



Right: The robots analyze the despaired space and, by utilizing the structural properties of plastic and paper, 3d-prints a new spatial bridging between the two buildings. Paper and plastic are negotiated for optimal material-to-structural efficiency. Paper is utilized as the compressive and insulative material while the plastic is used as the outer-shell, serving as the waterproof, tensile structure.
Below: Proposed robot utilizing existing technologies: waste processing and additive manufacturing. Free from axial restraints, this 3d-printing robot can create large-scale buildings with a limitless array of typologies and building assemblies.

Bottom: New, highly-performative wall typologies using paper and plastic made possible by non-axial 3d-printer robots.





Right: World's first 3d-printed waste paper. These were the first successful prints using newspaper and binder in the ZCorp 310 3d-printer. April 2012.

the_X

“Traditional architecture starts from the premise that architectural structures are singular and fixed . . . Emergence requires that the opposite is true – that those structures are complex energy and material systems that have a lifespan, exist as part of an environment of other active systems, and develop in an evolutionary way.”

Michael Weinstock

Fall 2011
University of California, Berkeley
Arch 202 Advanced Option Studio *MATERIAL INTELLIGENCE*
Instructor: Jordi Truco *HYBRIDa*
Credits: Pablo Zunzunegui

Natural structures are analyzed and understood as hierarchies of very simple components organized into constructs from the smallest arrangement of material, through successive subassemblies to the most complex – the whole organism or body. Properties and performances emerge that are more than the sum of their parts.

The aim of the project is to explore an integral design towards a multiprerogative material system that will act as structure and skin at the same time. The development of these systems will originate from the definition of their simplest constituents integrating manufacturing constraints and assembly logics in parametric components.

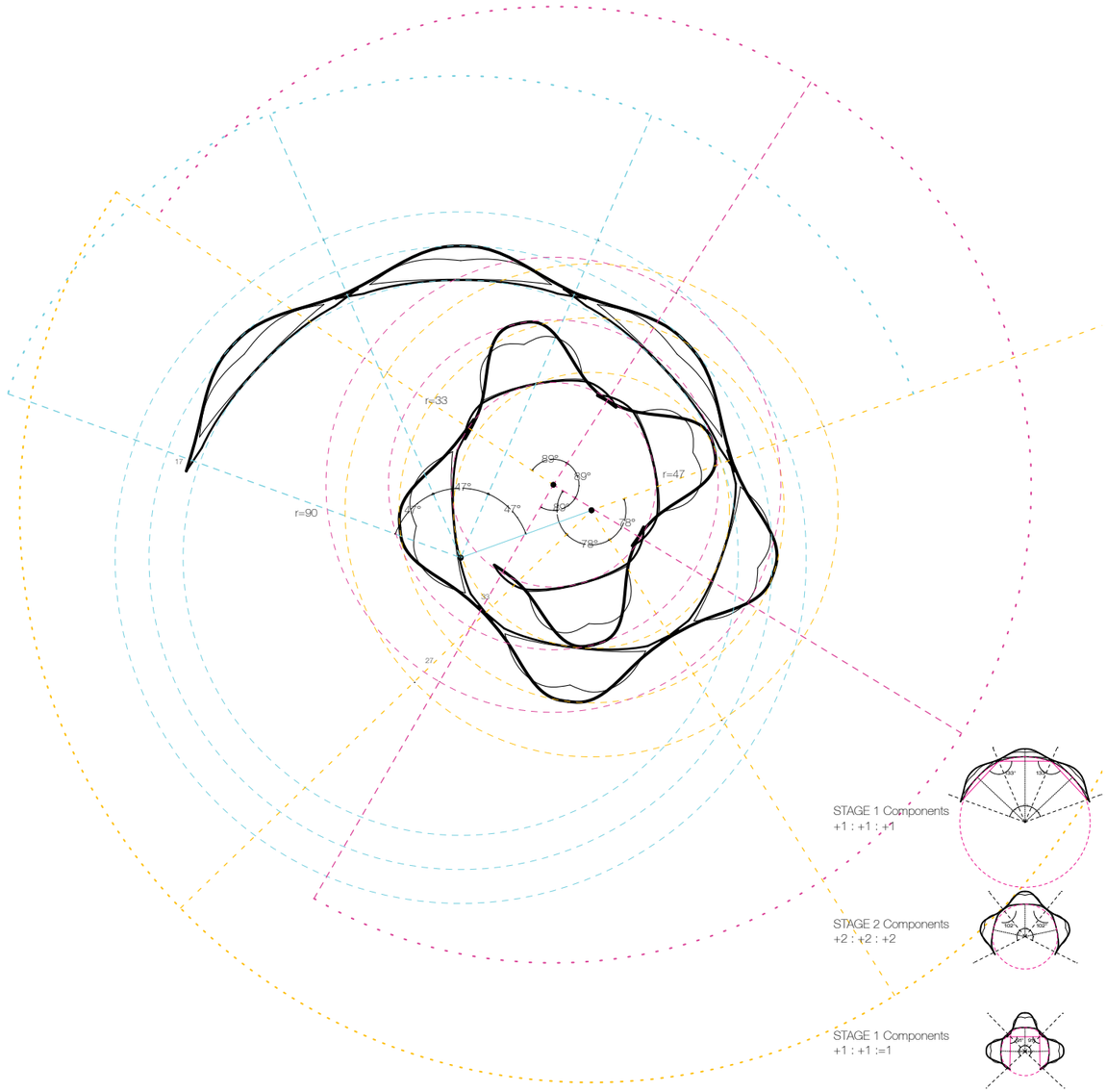
The research process includes the experimentation and learning of material in order to find its “intelligent” behavior. This new knowledge will be applied in the design of a physical system (phenotype) capable of self organizing into various configurations.

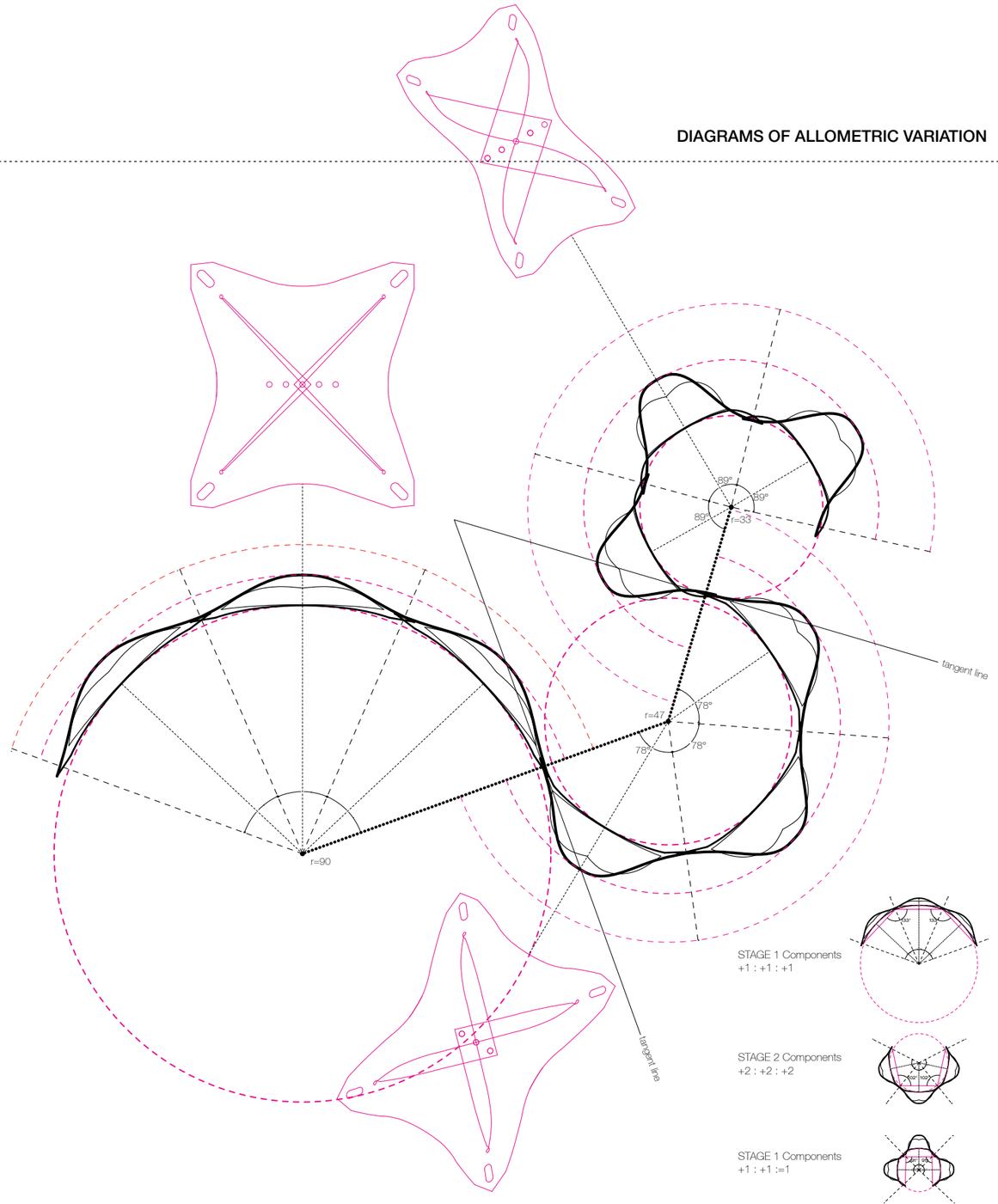
Human occupancy, in particular proximity and time lapse, will be the parameters that will define multispatial requirements. These requirements transfer to the phenotype, described by software- controlled parameters.

Consequently, the system design also includes the development of a parametric digital system containing the limits, laws, and possibilities allowed by the physical system. Dialogue between the environment and system is necessary. Sensors will take the information to our controller to then use the code to define the reaction of the entire system to the sensed impulse.

FALL 2011 the_X ARCH 202 ADVANCED OPTION STUDIO

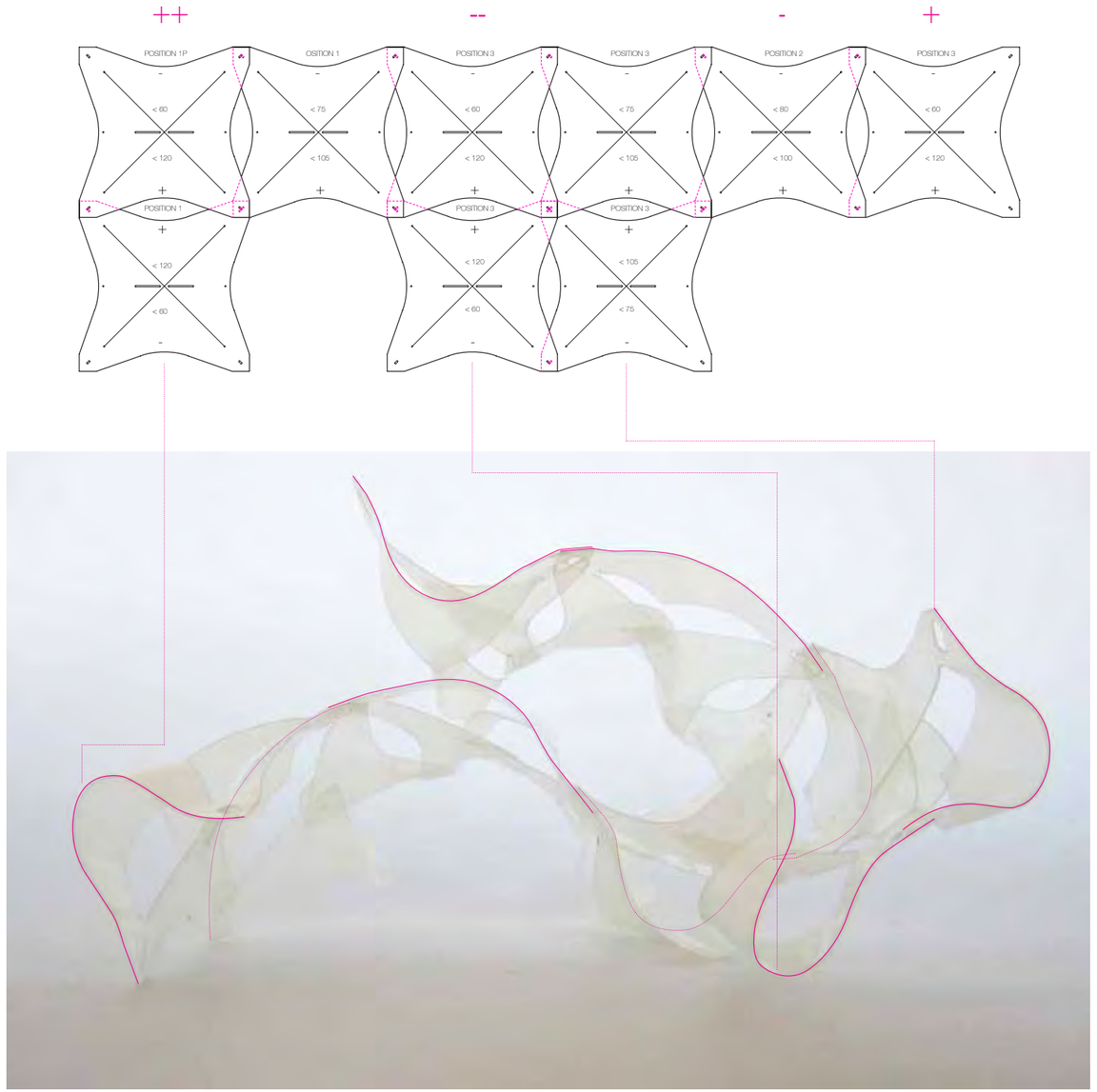
DIAGRAMS OF ALLOMETRIC VARIATION



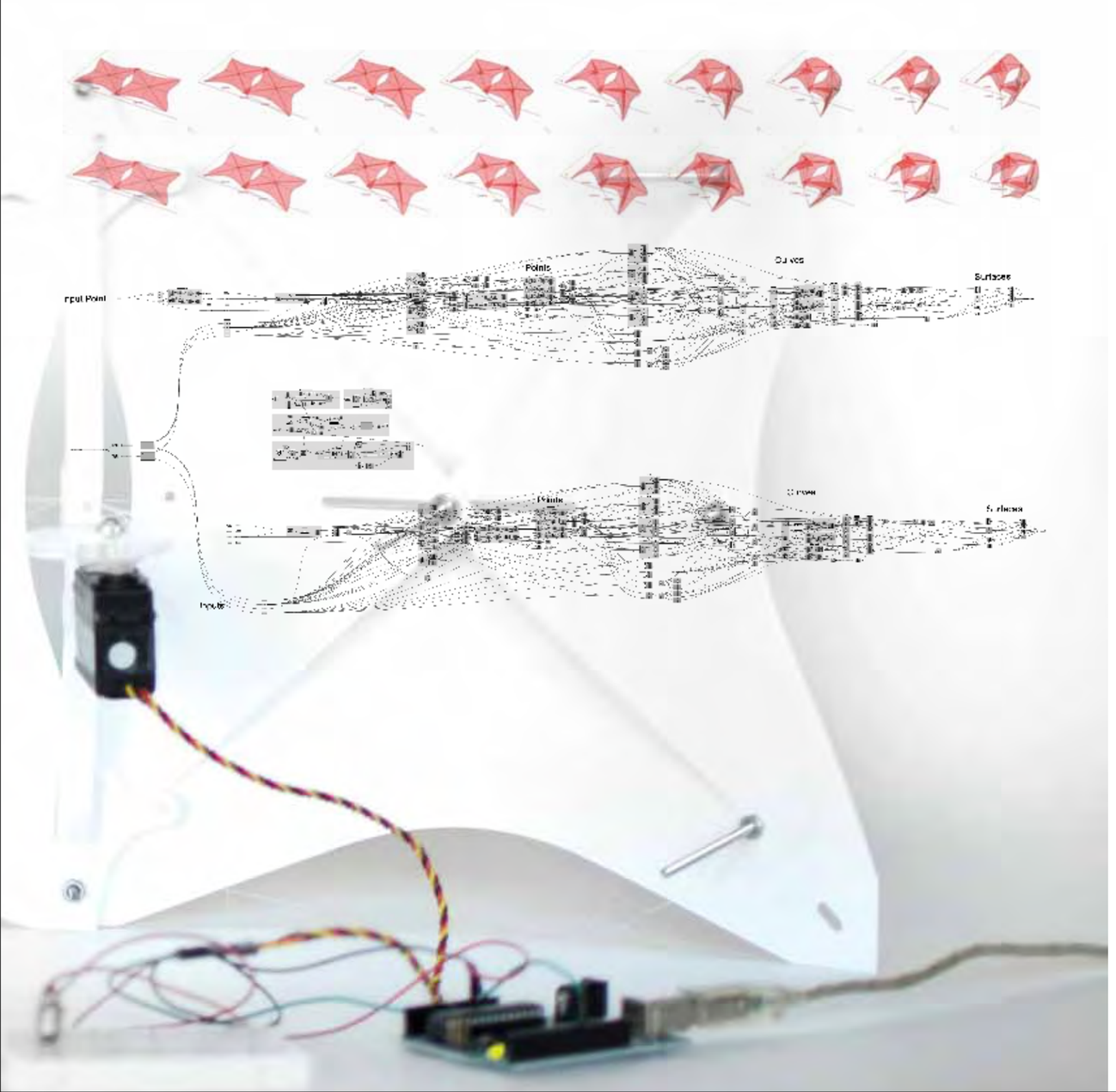


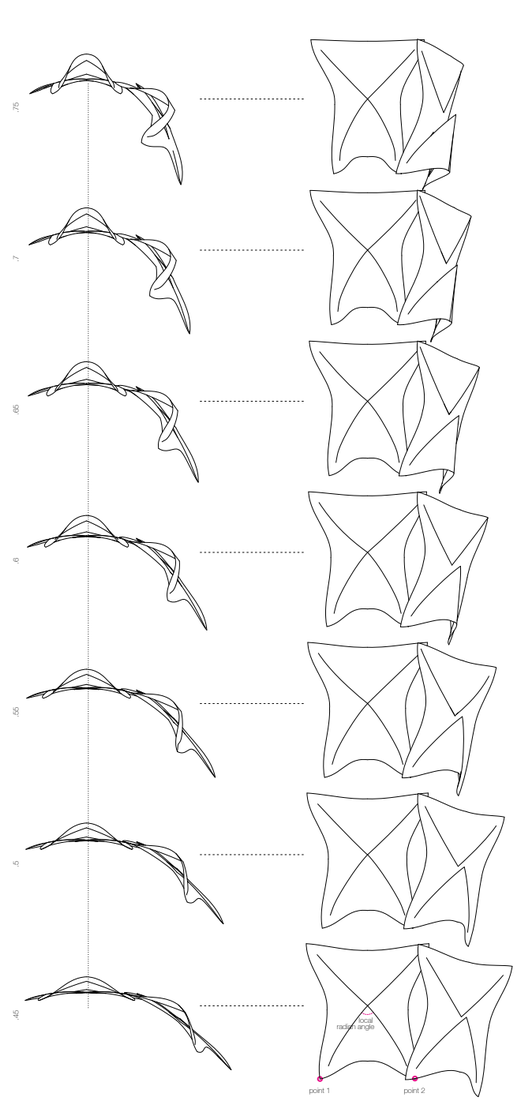
Below: Study model on the integration of waterproofing. Seeking an answer towards a more thermally appropriate component.

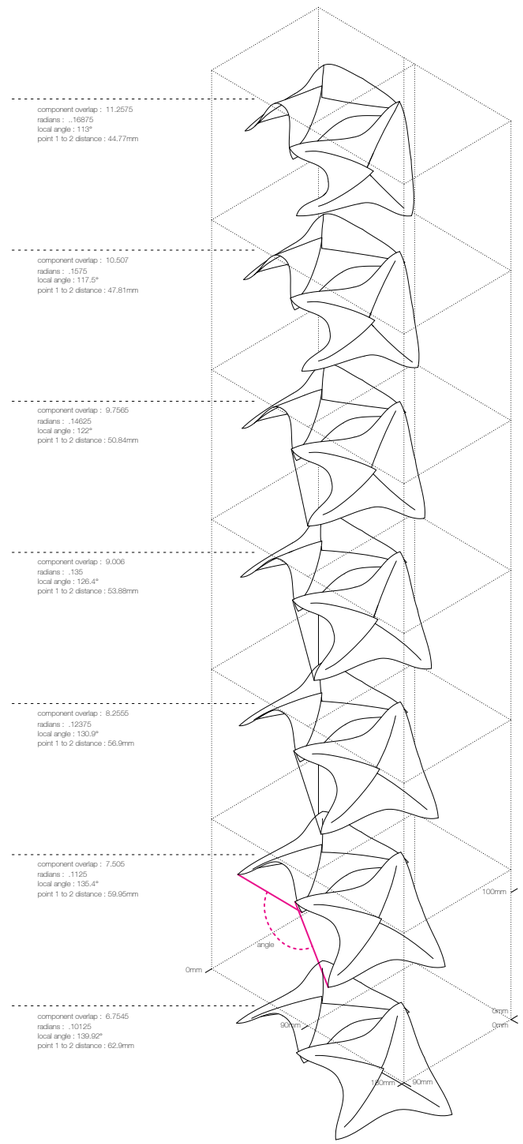
Below: Once the component deformations and their proliferated relationships are properly analyzed, we can start to control the exact global form by telling each individual component which local deformation to take on. Each individual component has two main deformations: overlapping distance and rotation angle. These slight local changes can have dramatic effect on the overall form. Perfect freedom, however, is not permitted in a proliferated component form as there are specific restrictions and abilities of the system. Through a series of emperical and analytical studies, one must understand the behavioral characteristics of the system in order to capitalize on its unique abilities.



Below: Parametric scheme of two components producing local change. By throroughly investigating the local deformations of each physical component, we create a series of x,y,z points which all correlate to it's specific geometry. Using these points found from the physical model, we integrate them into a parametric definition in Grasshopper. This allows us to digitally represent the parametric relationships of an actual physical component.

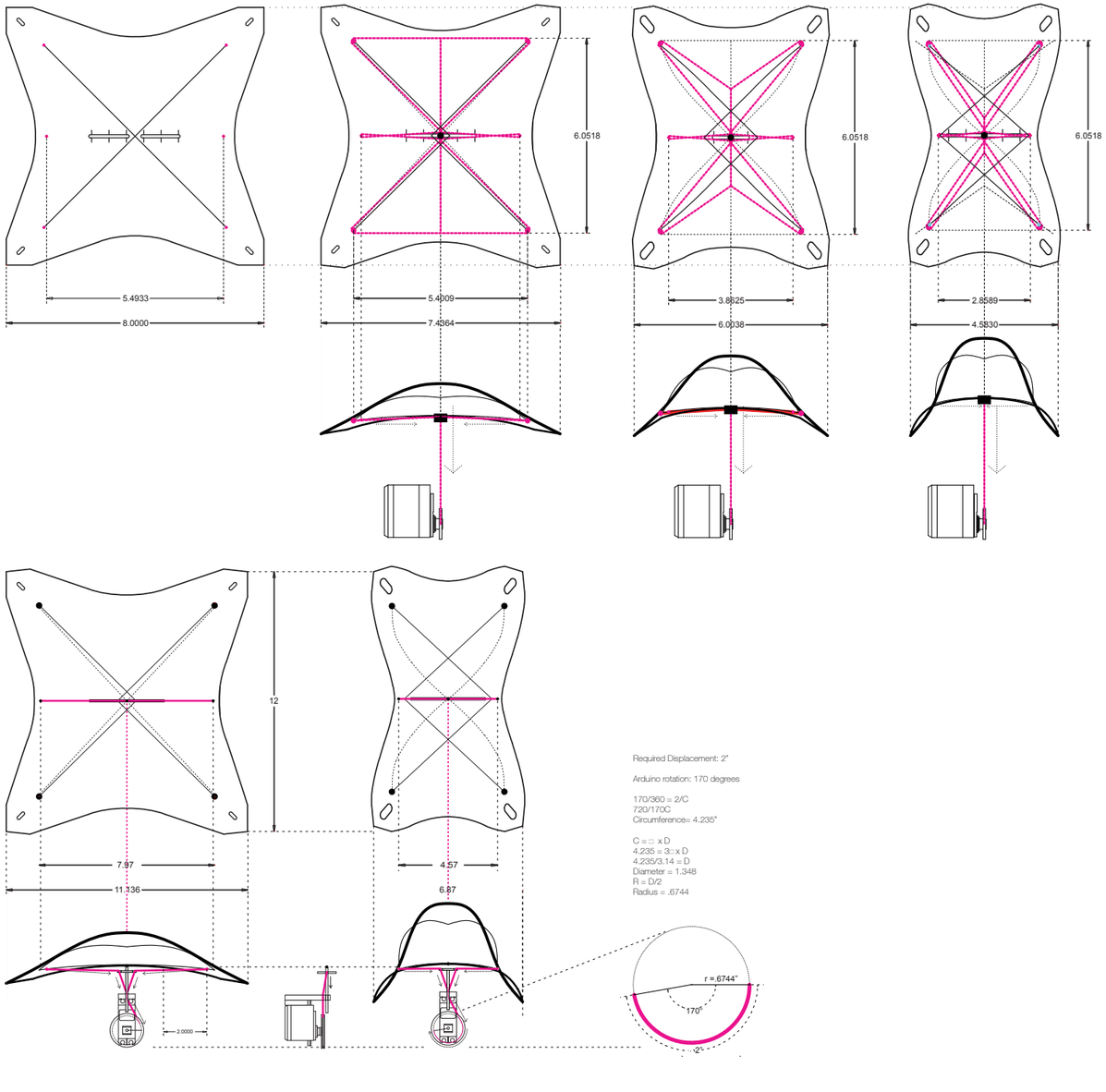






Bottom: First studies to produce dynamic local change on a single component. By creating a pully system and integrating the servo into each component, local change via arduino was first possible. With knowledge of how much deformation was desired, a series of gear ratios were created in order to control how much actual deformation occurred on the component.

FALL 2011 the_X ARCH 202 ADVANCED OPTION STUDIO



Required Displacement: 2"

Arduino rotation: 170 degrees

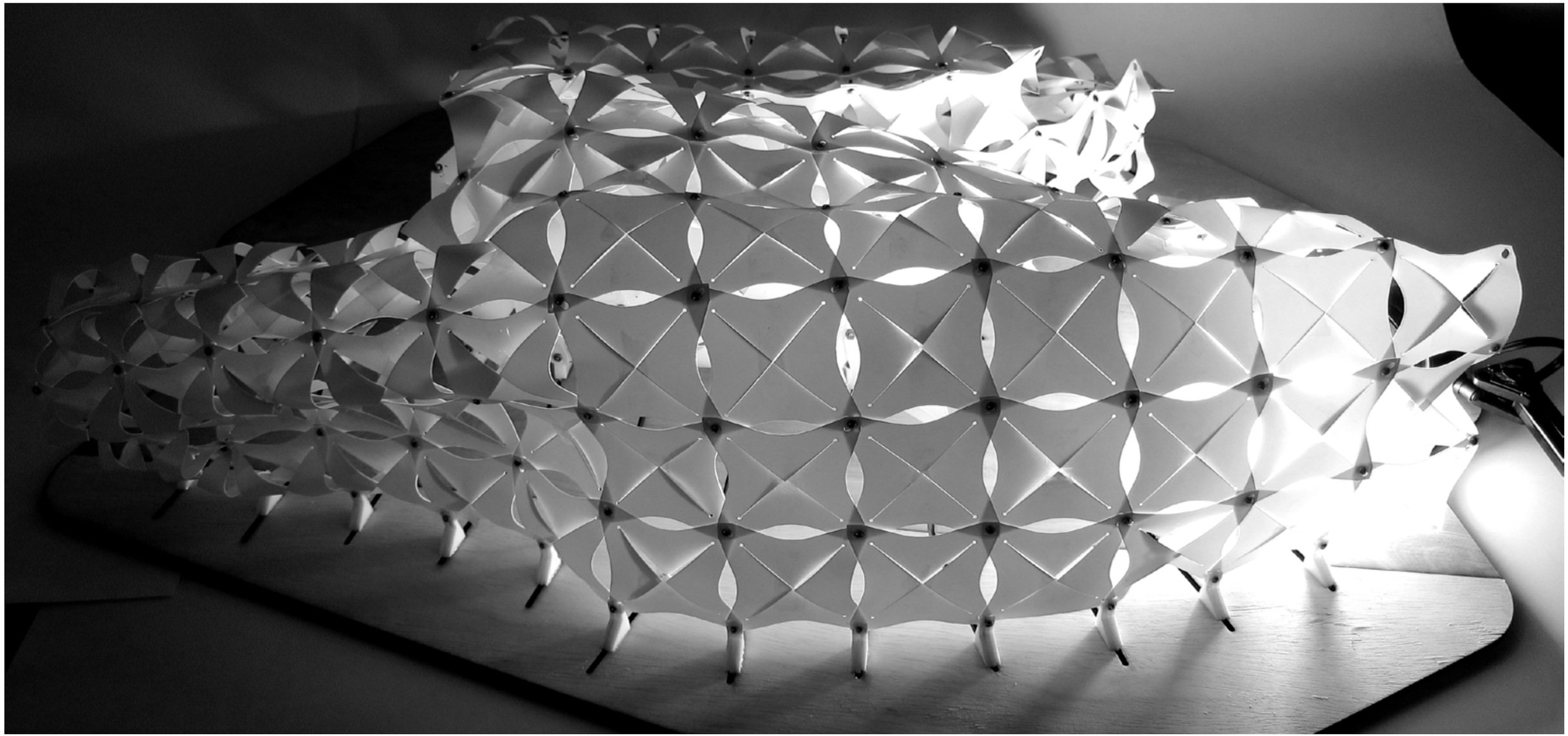
170/360 = 2/C
720/170C
Circumference= 4.235"

C = □ x D
4.235 = 3□ x D
4.235/3.14 = D
Diameter = 1.348
R = D/2
Radius = .6744

MECHATRONICS: INTEGRATION OF ACTUATORS AND ARDUINO

FALL 2011 the_X ARCH 202 ADVANCED OPTION STUDIO

ADAPTABLE HOUSE PHYSICAL PROTOTYPE



MODO CITY

Multi Objective Design Optimization

Invited participant in the International Design Competition: VERTICAL CITIES ASIA
Spring 2010
University of California, Berkeley
Arch 201 Studio: Case Studies in Design
Instructor: Mark Anderson *Anderson Anderson Architecture*
Credits: Pablo Zunzunegui, Marcy Monroe, Gabriella Aguirre, Micharel Bergin, Brian Gillette, Micah Burger, Mou Yujiang
** Work shown was my contribution to the project.*

"Everyone Needs Fresh Air"

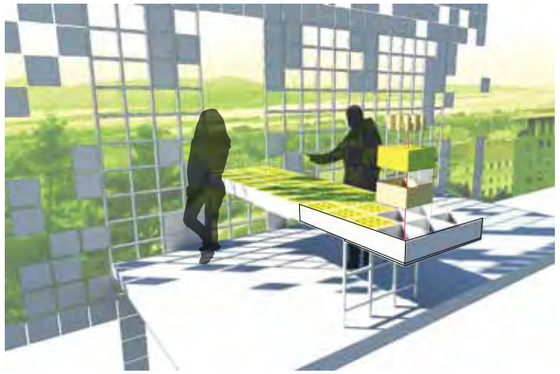
Modo City proposes a super high-density 'New City' which provides homes, necessities and recreational space for 100,000 people as well as supporting and providing for on-site industry. The city is composed of a building system which is unique to its own site yet adaptable to a wide range of climates and cultures. The constituent parts of the building system are manufactured on-site employing a wide-range of skilled trade, business and agricultural workers in its development.

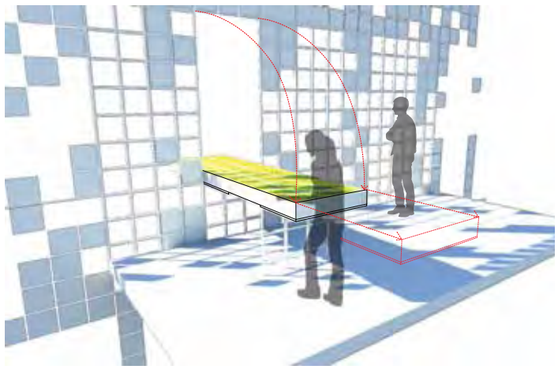
In general, the city is generated to accommodate the needs of its own citizens while also functioning as a tool for changing the larger ecology which is made possible due to its emmense scale. In Chengdu, one of the main issues at hand is the quality of air which our city addresses by incoporating filtration elements to cleanse the air as it moves throughout the city. Within the logic of a naturally occurring city growth, the comprehensive form of the towers simultaneously morph for optimal climate response. Tower structures and programs conglomerate around vast, city-scale voids. These voids behave as vertical-stack cylinders that, through pressure differentials, pulls up air from below. Before exiting the towers, the air is forced through a series of filters and finally through wind-turbines. Consequently, energy is created while naturally cooling the climate in and around vertical cities. By constantly parsing climate data, in particular wind conditions, the size of the massive internal air chambers fluctuate to create optimal air movement throughout the vertical city.

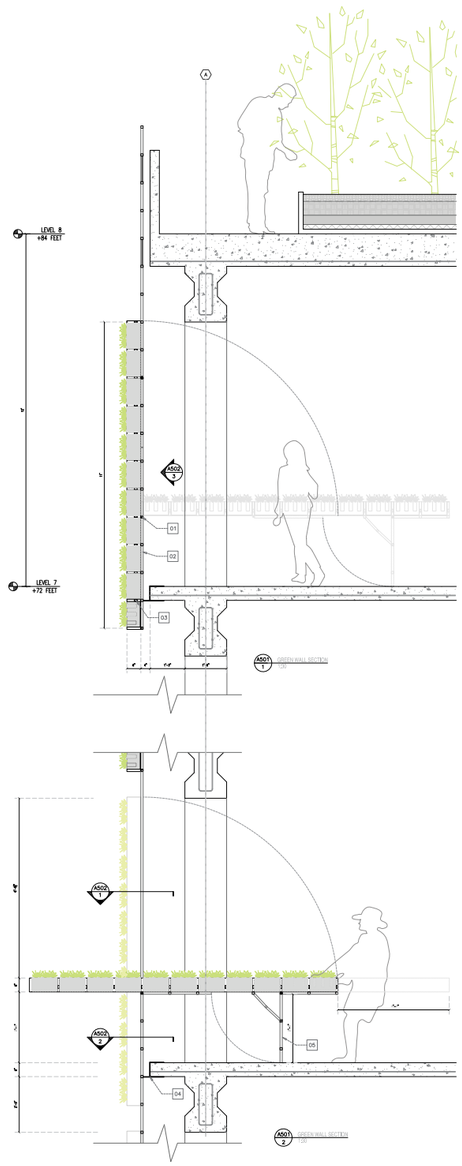
Ancient culture is imperitive to the Chengdu way of life. The calm climate and lifestyle deeply embedded within Chengdu culture was imperitive to preserve throughout these vertical cities. By taking the horizontal street life of current Chengdu and pulling it up into the city with a series of double-helix ramps around the internal voids, we provide a new, but highly familiar lifestyle for residents throughout the entire verticality of the city. Surrounded by fresh air, these ramps become the 'streets' of a traditional cityscape.

deConstruction

“generating an agricultural research facility through the deconstruction of existing spec-office buildings”

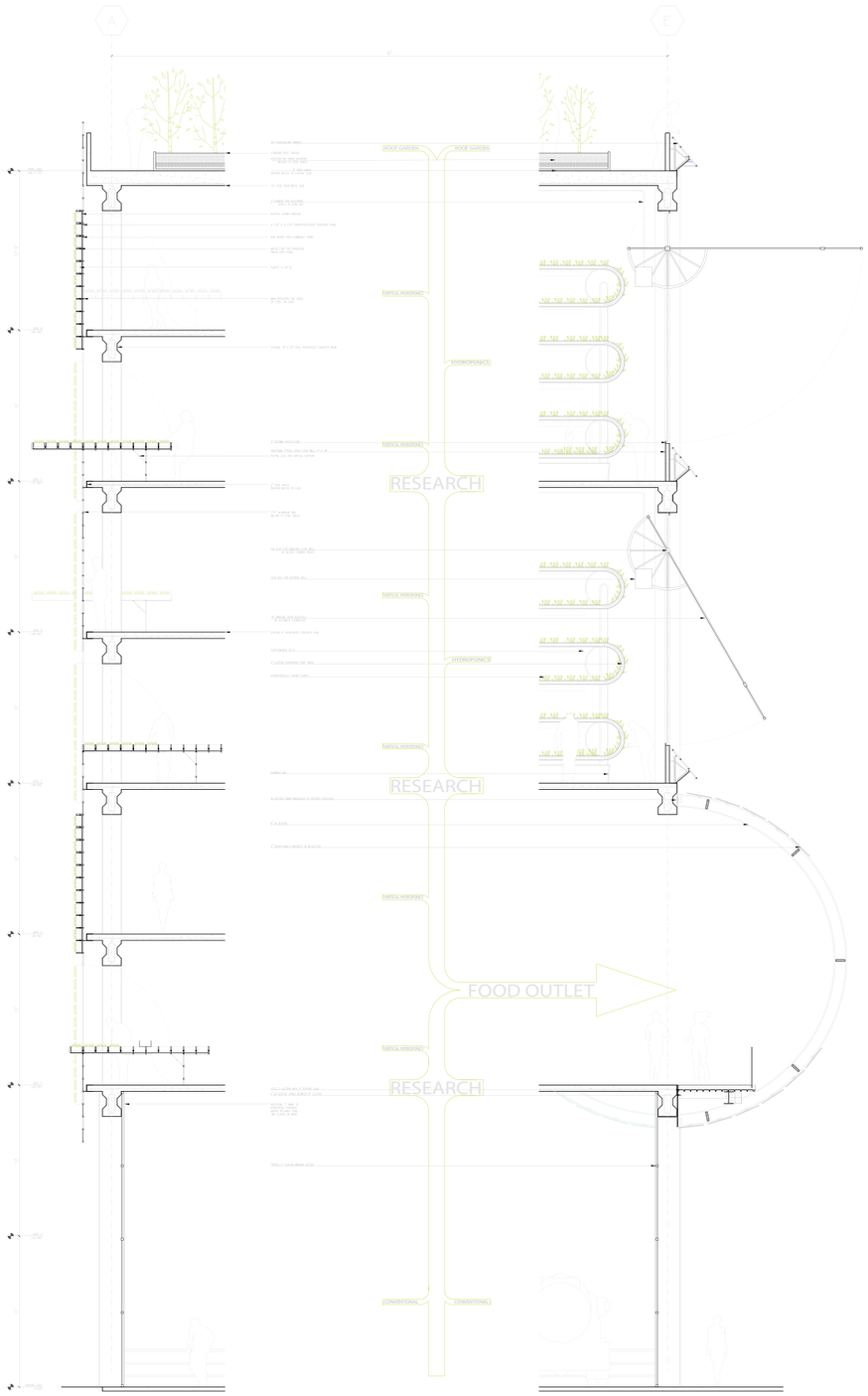






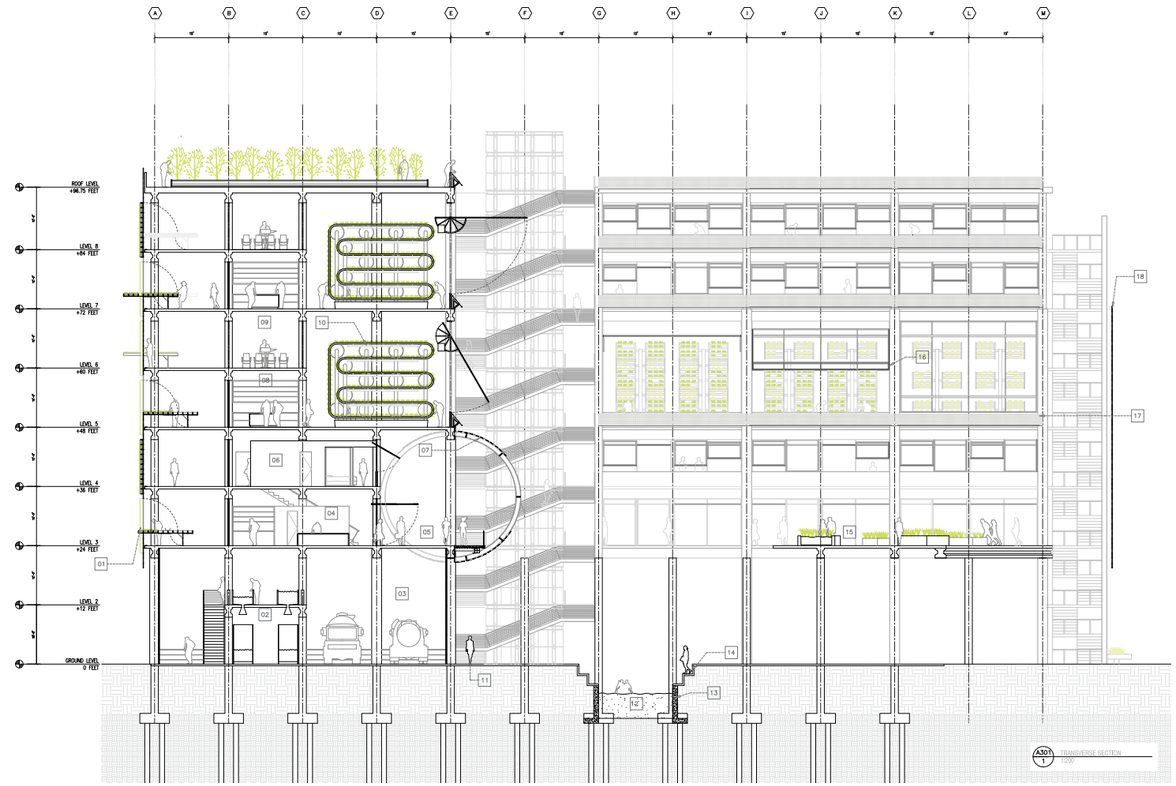
Fall 2011
University of California, Berkeley
Arch 201 Studio: Case Studies in Design
Instructor: Jill Stoner

The new 577 Airport Blvd Building, located on the Anza Lagoon, plays a vital role in the re-situation of the site. Previously a sterile office complex, the site now brings life to the area by creating crucial links to the Burlingame neighborhood just due South. The main link across teh 101 not only links the neighborhood to the beautiful site, it also links the buildings themselves. This building, comprised of agricultural research facilities, is an export of domestic foods. The building adjacent is the agricultural hub of the area. With the connection of these buildings and the neighborhood, the locals have a never-ending connection with recreation, beauty and food. Here, Water, Earth, Air and Vegetation all weave together, creating a blended microcosm of the world at best. The building itself was deConstructed with respect to the horizontal link, light and air. It is rethought of as units inside a whole. Each unit has the ability to be a thermal unit in itself, allowing for manipulation of all different climate types. This allows maximum freedom to explore and research hydroponic systems. The entire North corridor is comprised of vertical growth panels that fold down for harvesting. This provides crucial research opportunities while providing amazing beauty for the airplane passengers to the North. The building is an organism for rhizomatic experiences of agricultural knowledge and beauty.



Left: Through the deConstruction of an existing spec office building, a machine was conceived. The north facade is utlized for a series of vertical hydroponic panels that can rotate down to a horizontal position for harvesting and maintenance. A series of thermally independent units are created on the southern side of the building, which allows for controlled experimentation and research for larger scale urban agriculture. At the third floor, a horizontal walkway, linked from the city of Burlingame across the lagoon, is activated and serves as the output for the grown produce. Here, conventional farming methods are compared to urban growth techniques.

AGRICULTURE THROUGH SECTIONAL FUNCTION



ELLIPTIGO

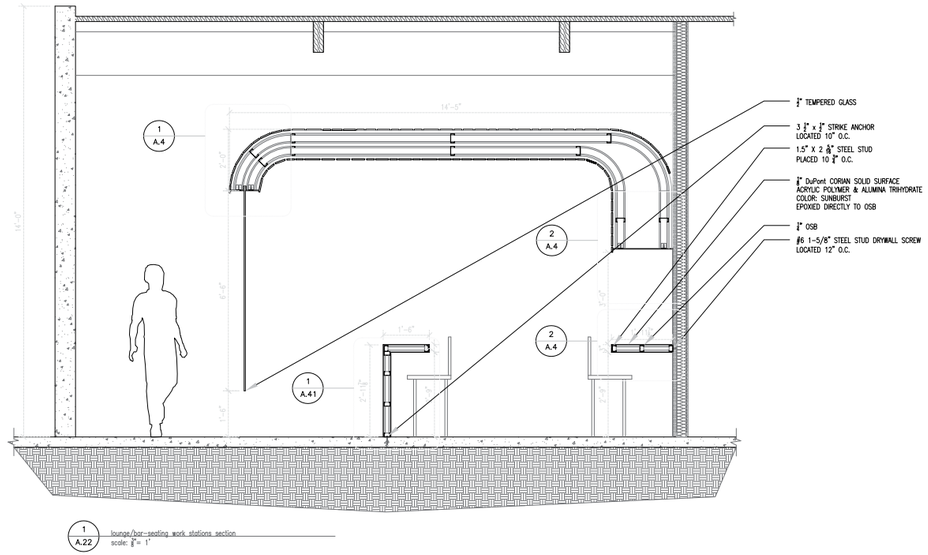
2nd Place Entry
Spring 2010
University Of Idaho
Arch 454 Design Studio
Instructor: Randal Teal

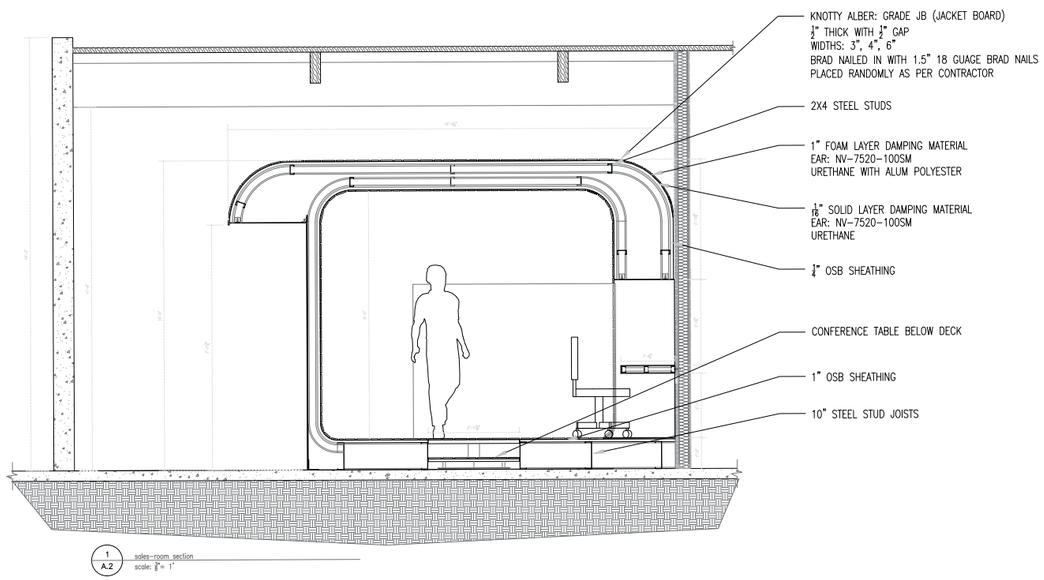
“ElliptiGo World Headquarters Redesign Competition”

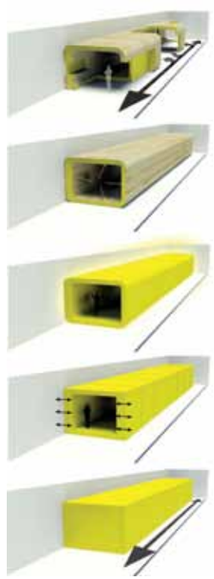
‘ELLIPTIGO’ is not simply an elliptical-bicycle: it is a LIFESTYLE. A lifestyle full of health, energy, activity, outdoors, happiness and social activities. It is an exceptionally bold scheme. The space of the ElliptiGO World Headquarters should exemplify these values and be a complete embodiment of ElliptiGO. The spirit of ElliptiGO and the programmatic functions and needs of its workers were coupled together in this design. By taking a very rational approach with ElliptiGO’s needs and desires in first priority, the design is a literal translation of ElliptiGO. The space needs to feel open, fresh and energetic while fully functioning with adaptability and flexibility. The design features a boldly inserted, ‘shell component’ that functions as shelter, systems storage, equipment storage, acoustic containment and splendor. Due to its modular construction; it becomes mesenchymatic, lending itself to the temporal needs of the ever-growing ElliptiGO. There is a grand oscillation between the workers and the various spaces in the ElliptiGO space; therefore, the north side of the building is left open as a hallway. This allows efficient, non-interrupted flow of people, bikes and equipment. The workers all have different needs and desires; therefore the ‘shell component’ has been shaped to accommodate full gradients of quiet-to-loud spaces and private-to-public spaces. This design is ElliptiGO: Bold, Energetic, Flexible, Activating, Adaptable and Compelling

Below Left: The redesign of the existing space is considered as a 'space within a space'. By inserting a modular system which hugs the south-side of the space, the north-side is freed up to accomodate the continual oscillation between the front and back of the space. A thickness is developed into the shell, behaving as the storage for electrical, mechanical and equipment. Through the subtraction of the modular shell, spaces are molded around the exact needs of Elliptigo. These spaces respond to programmatic functions as well as acoustic and privacy gradients.

Below Right: The modular shell is comprised of simple materials and assemblies for affordable and quick construction.







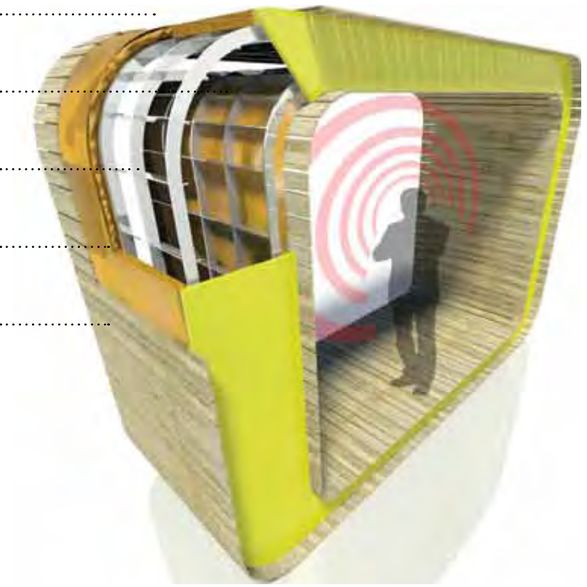
Modular System: Quick and affordable to construct. Flexible and Rhizomatic.

Storage: Space for storing equipment. Fully accessible.

Steel Stud Structure: Cost efficient and repetitive system.

Acoustic Panels: Provides ambient acoustic absorption while creating quiet rooms.

Wood Slats: Skin which provides further acoustic dampening.



SPRING 2010 ELLIPTIGO ARCHITECTURAL DESIGN VI

MULTI-USE SPACE THROUGH MODULARITY

CMU FIRESTATION

1st Place Entry
Spring 2009
University of Idaho
Arch 354 Design Studio
Instructor: Frank Jacobus

"39th Annual ICMA C.M.U. Firestation Design Competition"

This project received the 1st Place Prize of the 39th Annual Idaho Concrete Masonry Association (ICMA) Firestation design competition. The basic principle behind this competition was to utilize the CMU blocks in an innovative, efficient and creative manner to design a new firestation in Boise, Idaho. Firestations have an innate demand for a clear and logical layout with flexibility for future changes. Two longitudinal, CMU walls split the entire length of the building, forming the main structure, developing logical programmatic separation, allowing for efficient circulation and creating the opportunity for transient transverse walls. These movable transient walls create the necessary flexibility for inevitable programmatic changes throughout the lifespan of the station.

Passive design strategies are key in the long-term success of the building. By implementing horizontal louvres on the southern facade, daylight and heat gains are controlled. Thermal mass plays an integral role in providing comfort for the firefighters in the summer and winter while keeping overhead costs down.

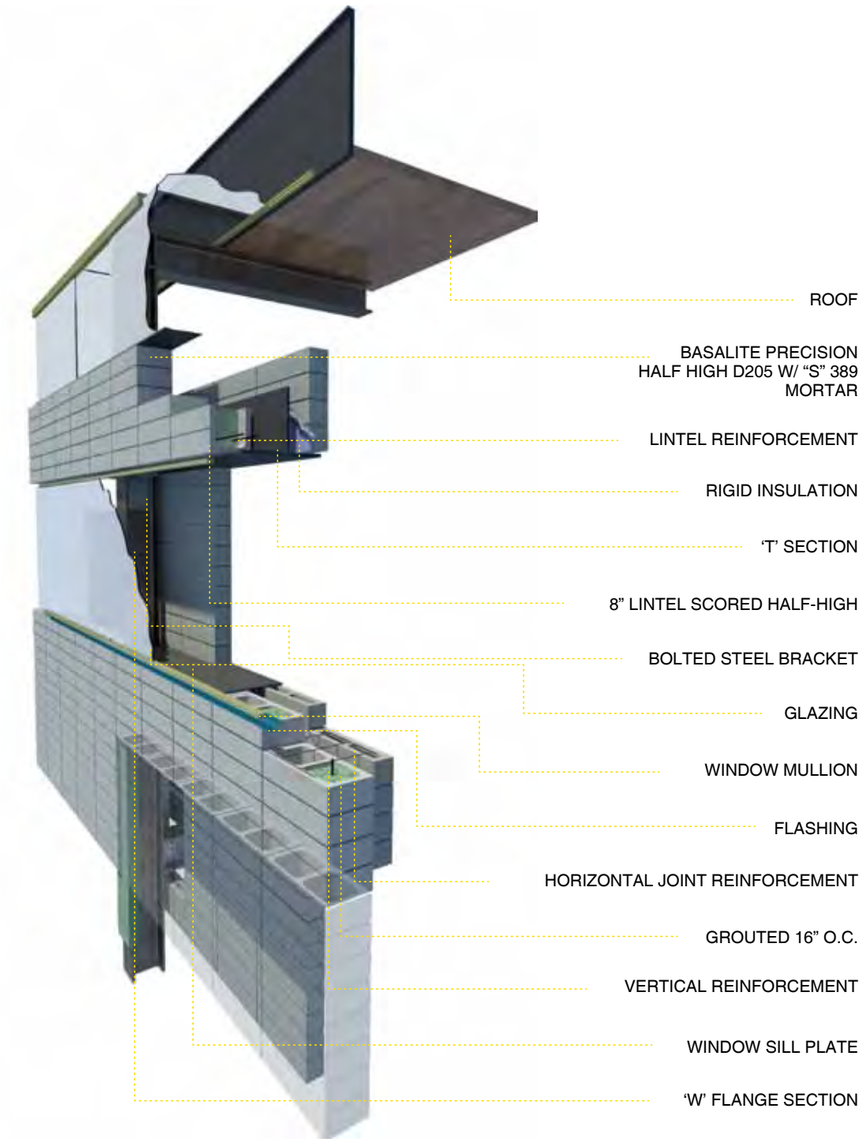
Below: A new Concrete Masonry Unit (CMU) detail was developed to allow for ribbon-windows while providing ample thermal dampending to the North. CMU walls span the length of the building and serve as the main structure, allowing for partition walls to be placed in between with future mobility options.

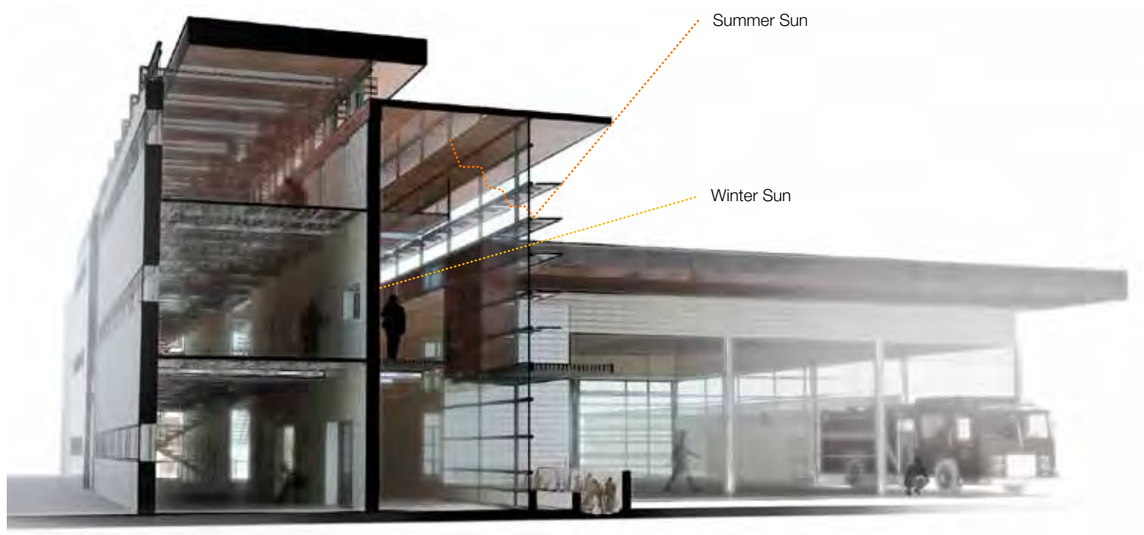
Along this North side, all program is stacked vertically to free the southern interstitial space for maximum circulation efficiency to the apparatus. The public spaces are on the bottom level, the semi-public are in the middle level, and the private spaces are stacked on the top level, creating an appropriate privacy gradient.

Right: The local climate of Boise, Idaho plays an integral role in the design of the firestation. Horizontal louvres on the southern facade are sized to allow winter sun penetration through the interstitial space and heat up the central, longitudinal wall for thermal mass heat transfer during the cold nights. These louvres do not allow direct summer sun to penetrate the space, which would add unwanted heat gains, but rather the light is diffused into the space.

SPRING 2009 CMU FIRESTATION ARCHITECTURAL DESIGN IV

CONCRETE MASONRY UNIT SOLAR AND PROGRAMMATIC RESPONSE





SPRING 2009 CMU FIRESTATION ARCHITECTURAL DESIGN IV

CIRCULATION AND PROGRAMMATIC EFFICIENCY