



MATT DEMERS
DESIGN PORTFOLIO

COVER

I am an architectural designer, theorist, and historian working on research in Chicago. I received a PhD in Design, Construction & Planning (2013) and Master of Architecture (2007) from the University of Florida. I am seeking an entry-level architectural design position after taking some time to develop the proposal for my first book based on research from my dissertation, *Le Corbusier & Ecstasis: A Cyber-history*. My research develops cyber-history, the use of historical precedents in problem solving and method development, articulated through digital rhetoric.

As a designer, I am interested in environmentally sensitive projects that foster richness in our built environment. This complex sensitivity must come through simultaneous response to the socio-economic, emotional, ideological and ecological contexts of architectural projects.

I look forward to hearing from you.

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EDUCATION

University of Florida, Gainesville, FL

Ph.D. in Design, Construction & Planning (2013)

Master of Architecture (2007)

Bachelor of Design (2004)

Graduated Summa cum Laude: Honors Thesis: *Culture, Technology & Discourse*

PROFESSIONAL & ACADEMIC EMPLOYMENT

Professional

Urban Corpse: Architecture & Urban Design, Pune & Mumbai, India; Gainesville, FL

Design Team: Special Economic Zone Mumbai, Master Plan: Project Manager (2006)

Publication Team: Senior Editor and Publication Designer (2006-2007)

Project Manager on initial design and presentation phases of large development projects in Pune and Mumbai. Guided design team to develop the graphic materials for presentation to secure international funding sources for the developments.

SWiMcau (Sanders Wang MacLeod International Consortium for Architecture and Urbanism), Gainesville, FL

New City Master Plan: Foshan, China Competition & Publication Team (2004)

Graphic designer on competition materials

Teaching

University of Florida School of Architecture, Gainesville, FL

Architectural Design Studio 1 & 2 (2004-2005); Core Graduate Design Studio 4: GTA (2006)

Architectural Theory 1: Discussion session & GTA (2005); Architectural Theory 2: Discussion/Lecturer (2007-2009)

Indian Architecture, Economics and Urban Development: assistant instructor (2007)

Community

Pecha Kucha Organizer, Gainesville, FL (2011-13)

Official organizer in charge of event planning, graphic design, promotion & management of PKNight team

City of High Springs City Planning Department:

Downtown Public Spaces Project (2009)

Project & Graphic Design for grant funding requests and public relations for High Springs City Planner Christian Popoli

8 — Douglas Neighborhood Historic District Redevelopment (2011)

Developed Low-Cost Housing Design/Build Studio as a collaboration between the City of High Springs, Douglas Neighborhood Residents' Committee, the private developer contracted for redevelopment, and the University of Florida School of Architecture

MAISON DOMINO /
GRAPHENE HOUSE
(2015)



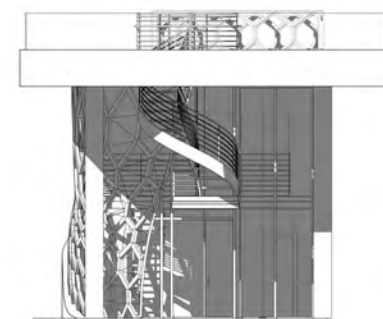
South East Corner



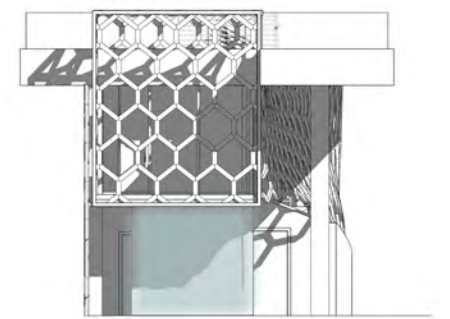
South West Corner

Modeled and rendered in Revit
Finished in Photoshop

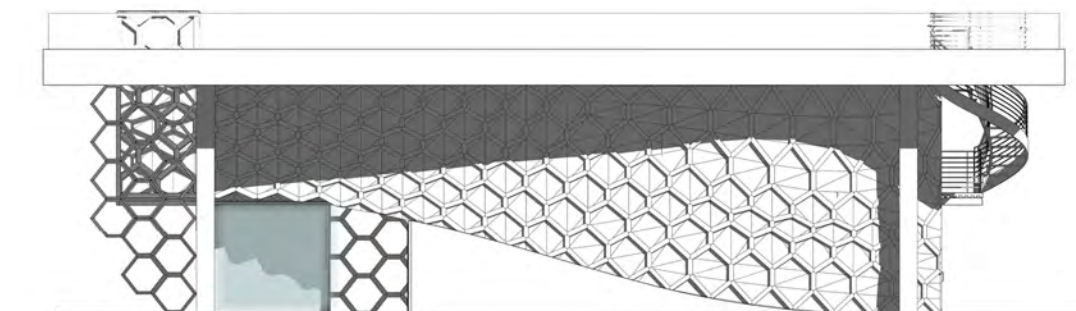
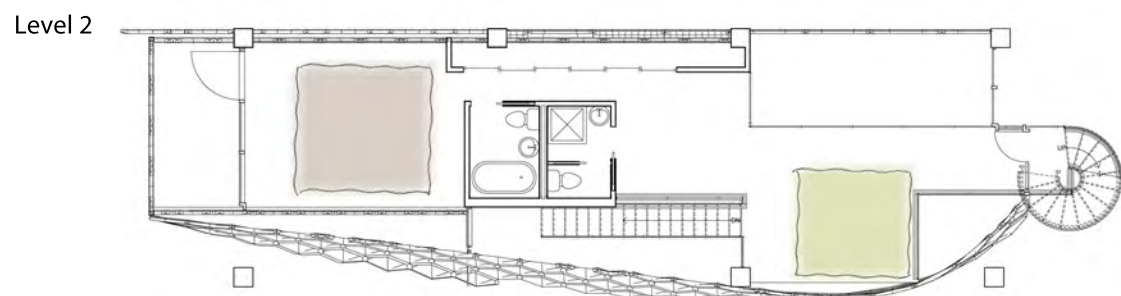
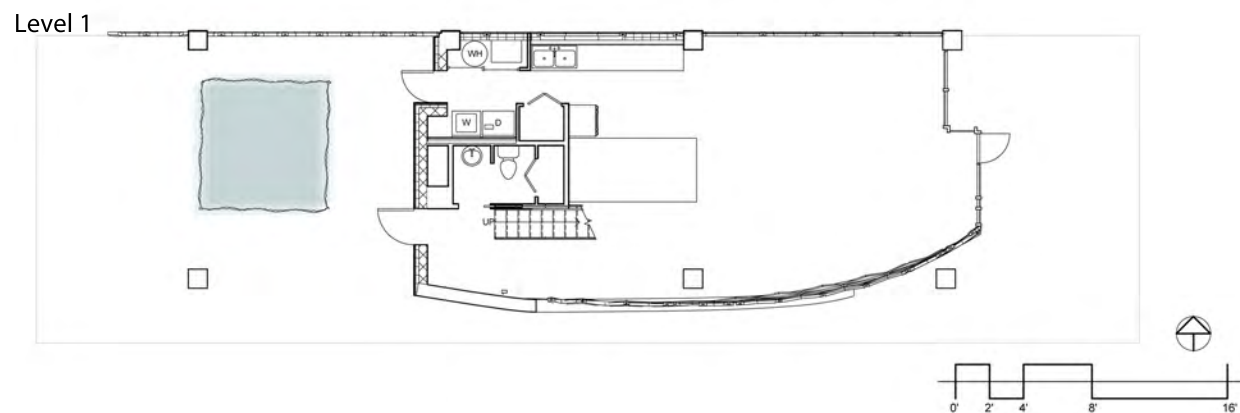
Hypothetical house project that takes inspiration from Le Corbusier's Maison Dom-ino and applies it to the revision structure of BIM supported by Revit to produce a contemporary version (and critique) of Philip Johnson's Glass House. The overwhelming transparency of the facade is counteracted to produce private areas through the addition of a second level and roof garden, and use of hanging curtain panels to create temporary rooms within large continuous spaces.



East



West



South



North

THE LOW END Chicago (2015)



Modeled in SketchUp, rendered in Kerkythea Finished in Photoshop

The Low End is a concept for a cocktail bar / street art gallery in Chicago's Randolph corridor. In a quick 4-day turn-around, the clients needed conceptual renderings to show the landlord their vision for the selected space in a clear and accurate way. Using these renderings, the clients were able to secure a contract with a local restaurant group to develop the project.

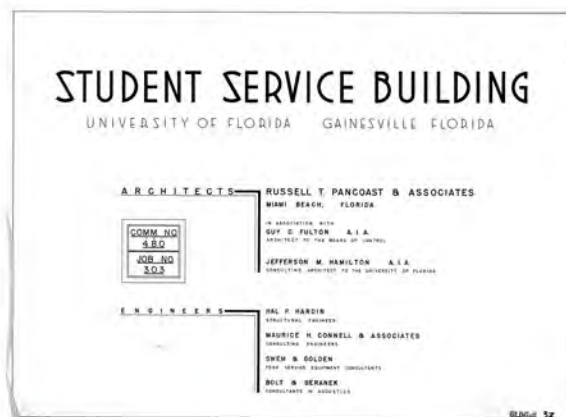
view from entrance

view of entrance & patio from N Aberdeen

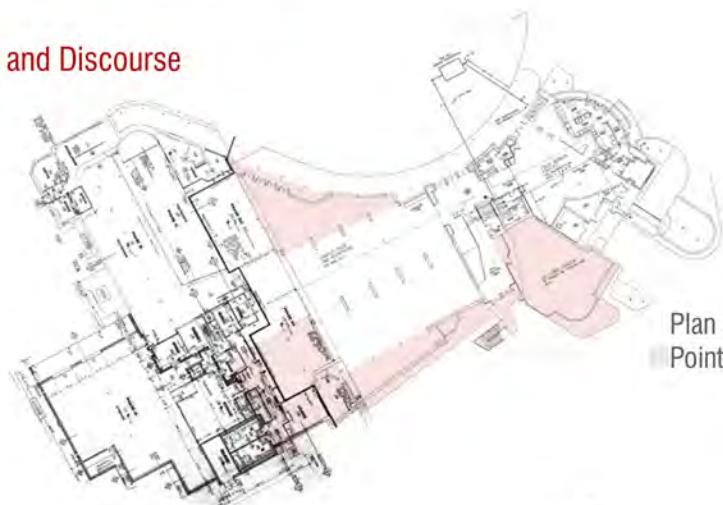


THE LOW END

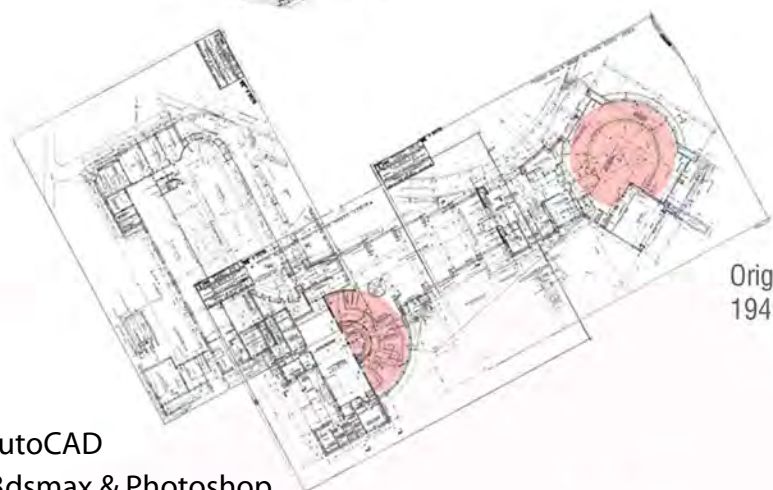




Hub Renovation Project Culture, Technology and Discourse

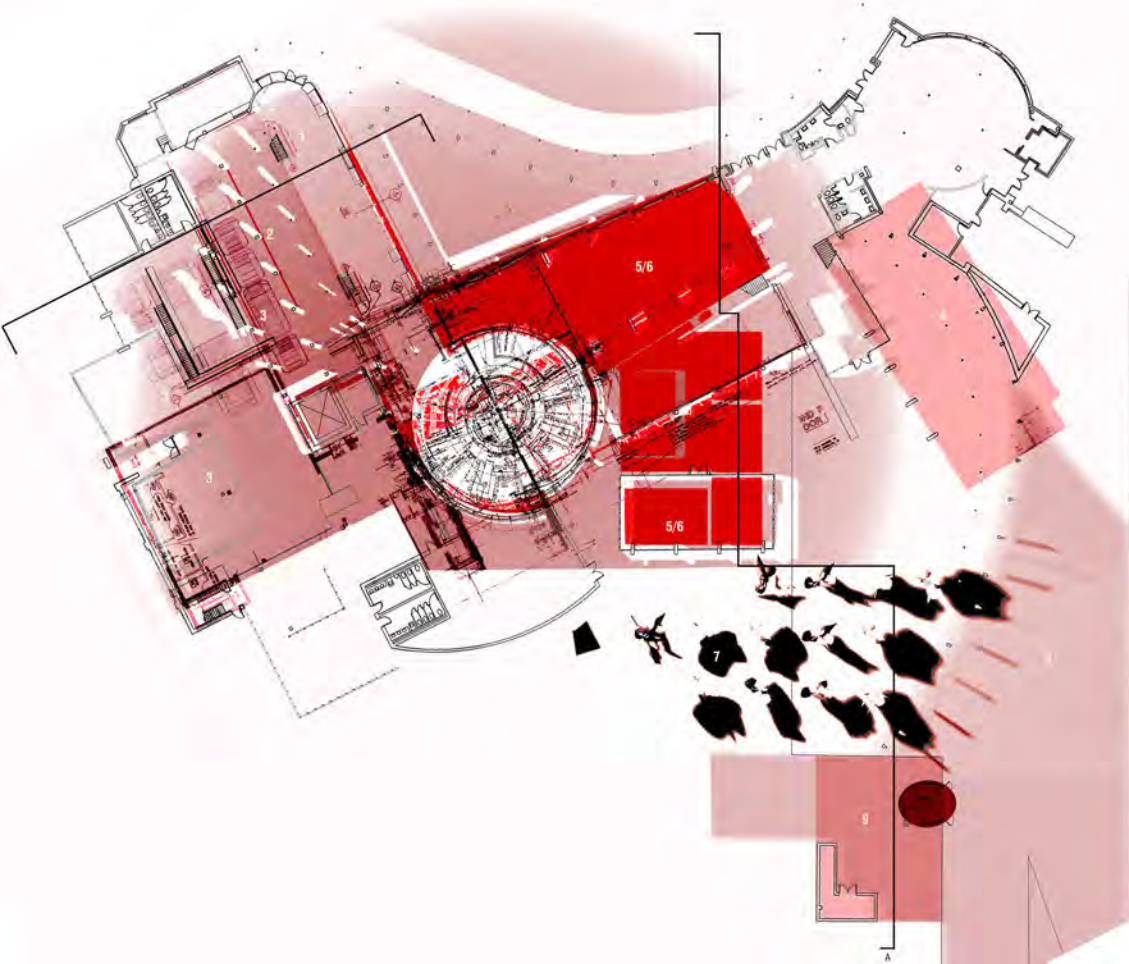


Plan as built
Points of Subtraction



Original Plan
1949

Modeled in AutoCAD
Rendered in 3dsmax & Photoshop



The Student Services Building for the University of Florida was originally design by Russell T. Pancoast & Associates in 1949. The building, later called "The Hub" contained the University Post Office, bookstore, dining facility, ballroom/auditorium with stage, student financial services, a barbershop and bathrooms for males only.

The Process of Addition/ Architecture of Institutions

Subsequent additions to the building provided increased square footage for the growing university. The building, as existing at the start of this project in 2004, is a bizarre amalgam of construction systems, materials, and program pieces. The Hub can be read as the embodiment of University discourse. In its final incarnation, program pieces struggled for autonomy within a single built envelope that denies hierarchy, each occupant modifying conditions where ever possible to facilitate their activities. This process always taking the form of addition or modification of the existing architecture for removal would prove too costly or time consuming to be feasible.

Establishment of Cultural Discourse Temporal Material

The renovation prescribed by this project began with a sifting process- scouring original construction documents in an attempt to understand the initial motives of the designers and the impacts of temporal progression on this architecture within the Institution.

Subtraction

The entrance sequence and front of the building are restored to the original 1949 design. By subtracting the infill, the covered walkway returns to its original composition as a free colonnade, a permeable boundary softening the collision of two rectilinear masses. The striking modernist composition provides a temporal anchor and establishes a starting point for the project.

The earth behind the building is shaped into a swath of flat terrace. The negotiation between built and existing, added and subtracted concludes in the construction of a tabula rasa. The earthwork begins the establishment of difference. The terrace extends the entry level of the building, moving the point of contact to the immobile boundaries of the University's pre-existing infrastructure- both above ground and below.

A grove of orange trees is planted on the terrace. The grove will require much care, as this stereotypical Florida fruit is prone to freezing when planted this far north. The synthetic presence of the trees is exemplified by the rigid planting module, a grid of trees upon a manicured table of green grass. The fruit of the trees and their cultivation provide a link between the cultural center, the university, and the student body.

Addition

Program/Institution

The occupants of the renovated Hub are-

University Media Center- including the Media Production Center for Institutional Materials, public media production and performance facilities, relocation of the CSE student computer lab, a media gallery, film library, and necessary administration space.

Internet Coffeeshop/Cafe

relocation of the UF International Center

on-campus facilities for

the Institute for Black Culture

the Institute for Hispanic/Latino Culture

the Institute for Asian Culture

Institutional University structures dictate the subdivision of faculty, capital and research into autonomous, specified departments. The piecemeal realization the University of Florida campus is distilled from this ideology- creating a "suburban" configuration of building as object within the landscape.

The renovated Hub serves as a physical explication of this departmental discourse. The clients occupy a landscape of autonomous fragments. Hierarchy becomes imbedded within a dense matrix of temporal relation and interior/exterior, public/private space.

Institution/Difference

Within this landscape, the Cultural Institutes are given the primary role of constructing meaning through difference. Sited in dialogue with the massing of the University's Computer Sciences and Engineering building which frames the Eastern boundary of the lawn, the "Culture Block" completes the local massing of the institution's architecture. The North/South alignment of the Block corresponds with the design of CSE as well as with the new terrace and orange grove. Positioned to frame the West side of the new public space, the block echoes the spatial significance of the ancient "Sacred Oak" of the University Lawn. The Block appears as a tower, broken free of the masses of CSE. Freestanding, the Block reaches confidently skyward, even appearing to lift free of the ground- the continuity of the ground-space untarnished.

Each of the cultural centers is assigned a 2-story segment of the Block. The exterior envelope presents the public with 3 separate lattice systems which add tactile interruption to the composition of the facades. The isolated systems presented on the exterior coalesce within the spaces of the cultural centers and blur the boundaries of each institution. The programmatic functions of each center utilize the unexpected volumetric boundaries and shifting levels to create intriguing spatial sequences and variety within the Block.

B



A



The original Student Services Building featured large public spaces throughout the entry level, enclosed by glass systems spanning between concrete columns supporting opaque volumes above. This diagram is embraced by the renovation to allow public space to flow unimpeded from access via the lawn on the south to Stadium Road on the north. The roadside entry to the project is thus linked with the vibrant public space of Turlington Plaza neighboring to the Northeast. The renovation draws upon the extroverted activity of the Plaza by positing public gallery spaces for the cultural and media centers, gathering spaces and the Internet Coffeshop on the entry level.

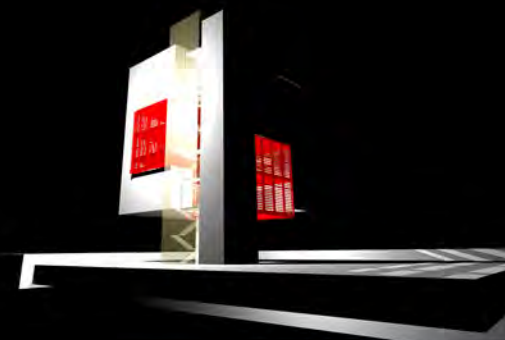
Specialization and fragmentation are torn free of the ground. To maintain the conceptual integrity of the original design, high tech additions (in the form of translucent pods for media production, or rigidly defined boxes for performance) are supported by new structural systems.



The interaction between preexisting and new structure turns the division between interior and exterior space into a palimpsest. In the media production wing, the new structural system from which the new Media Pods and their circulation are hung, creates a glass curtain wall that slides down to the ground behind the historic facade of the building- positing present function distinct from a preexisting structure. (Section B)



Culture Block:
Coalescence ←
Differen... →



Analysis of Translucent Skin and the construction of spectacle

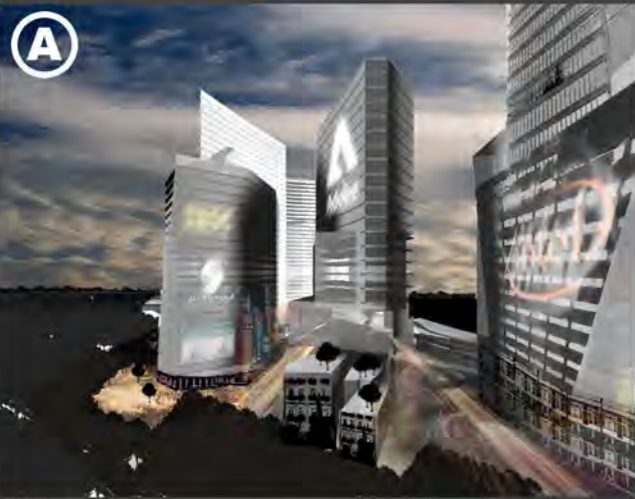
The interplay between interior and exterior comes to denouement at the center of the project. In Pancoast's 1949 design, the drum space which housed the post office was balanced at the intersection point between the two bars with a repetition of the circle in plan. All traces of this curvilinear element were removed in subsequent renovations. It appears now to provide a necessary punctuation between the perpendicular axes of the project. On the second level, performance spaces surround this focal point. Posited within the historic space of the Student Center's ballroom/auditorium, these performance spaces derive order from the original diagram of the building. The addition fills out the expended performance requirement for the building by adding a new wing reaching out toward the Culture Block. The structural system for the new wing spans from the existing steel module out to a single gallery fragment. This small gallery is isolated from the flowing public spaces to enhance security, but the fragment constructs a fold, lodging exterior space within the boundaries of the envelope.

The fold becomes articulated by a translucent curtain wall system, a specter which weaves and intermingles interior and exterior spaces. This translucent screen becomes the locus of the film library. Specifically sited at the point of the erased curvilinear diner, the library is a moment of density where scale and boundary are dissolved in constant movement. The library itself is merely a void, posited between definition of interior and exterior, with the circular form implied by the original design now destroyed by fragmentation. In the void sits a large rusted steel mass. This entity houses the servers that store the university's movie archive as data ready for wireless transmission to any space in the project or beyond. The resulting interference of systems denies any center, favoring an extroverted spectacle of technology.



ZEUS-SEZ

Planning, Phasing, Funding
14 Million Square feet; Technology Special Economic Zone
Mumbai, India.



The Indian Development company **Zeus** collaborated with the University of Florida School of Architecture in 2006 to engage critical design-development of a flagship Special Economic Zone within the city limits of Mumbai.

Urban Corpse was formed through this collaborative effort; a University of Florida group convened to develop the guidelines for the 14 million square-foot, self-sustaining, energy producing Technology city within a city. The design development and master planning and construction phasing for the SEZ project was the product of an intensive studio environment, bridging distinctions between pedagogy, theory, practice and praxis. The result was the initial stages of exemplary strategy for directing India's explosive growth- a fully sustainable reimagining of Indian urbanity

- (A) Southern Tip, looking North
- (B) Midpoint, looking Southwest

Modeled in Form-Z & SketchUp
Rendered in Form-Z & Photoshop

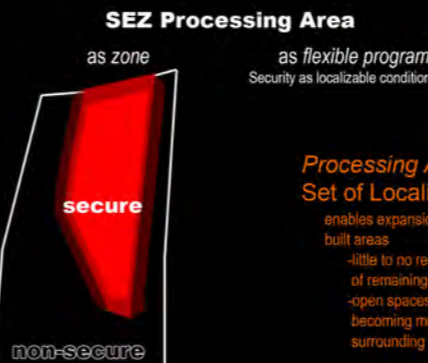
Site Constraints and Program Areas



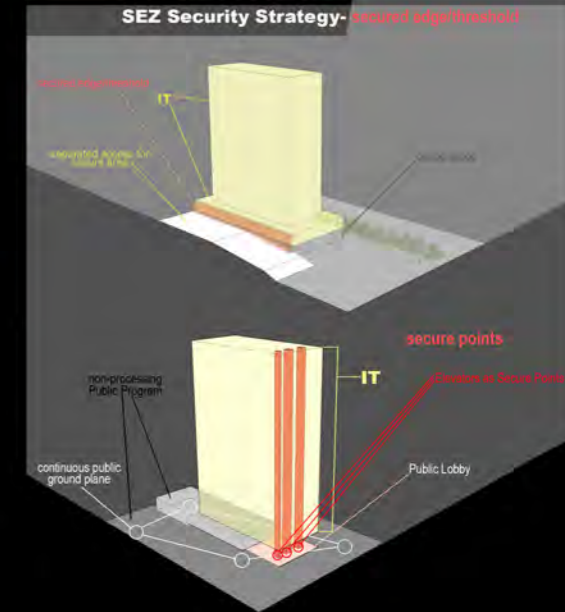
- 1- IT Processing**
-Processing Towers and Incubation Spaces.
-8% employee service space
- 2- Hotel + Convention Center**
- 3- Public Program + Residential**
-Primary retail center
-Residential
- 4- Hybrid Variable Program**
-Tower and Ground + 2 structures can be utilized for a mixture of
-supplemental IT Processing space
-Residential + Retail
-Service + Institutional
- 5- Variable Program**
-Towers and Ground + 2 structures can be utilized for
-supplemental IT Processing space
-Residential and Retail
- 6- Institutional + Retail + Residential**
- 7- Residential**
- 8- Service**

Rethinking National Boundaries: The Graduated Threshold

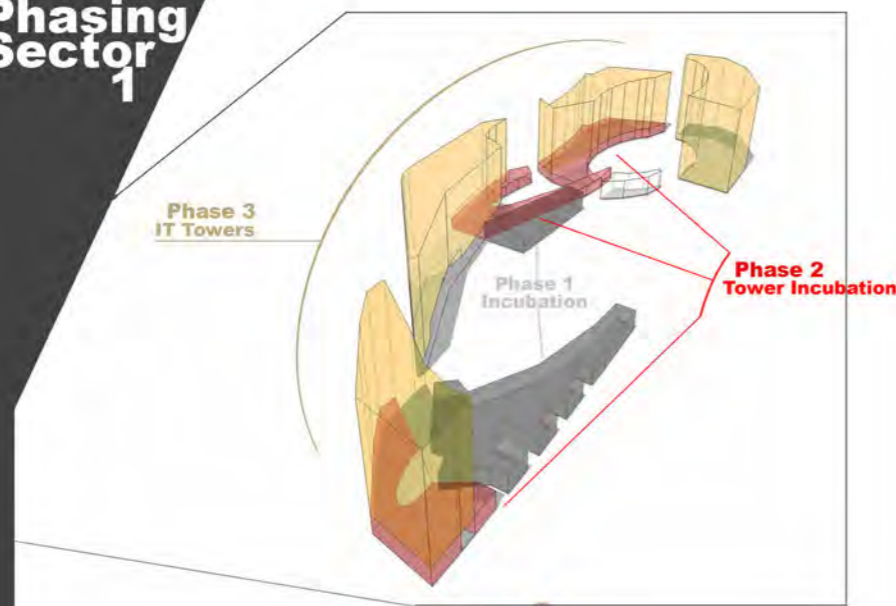
A graduated threshold allows for public interaction and social space to continue across the Processing Zone without undermining the security of the SEZ Industry boundaries. This makes it possible to also allow for a great deal of flexibility in the placement of IT program.



Processing Areas as Set of Localizable Conditions
enables expansion of processing program throughout built areas
-little to no reduction in the functional qualities of remaining non-processing program
-open spaces respond to surrounding program, becoming more exclusive as the amount of surrounding secure-IT program increases.



Phasing Sector 1



Parkscapes
serve as connective social & programmatic tissue and charge the exterior spaces of the project with urban intensity

Incubation/Structured Parking
Simple steel-framed Incubation spaces G+2- (first phase)
Structured parking blocks above (constructed during later phase)

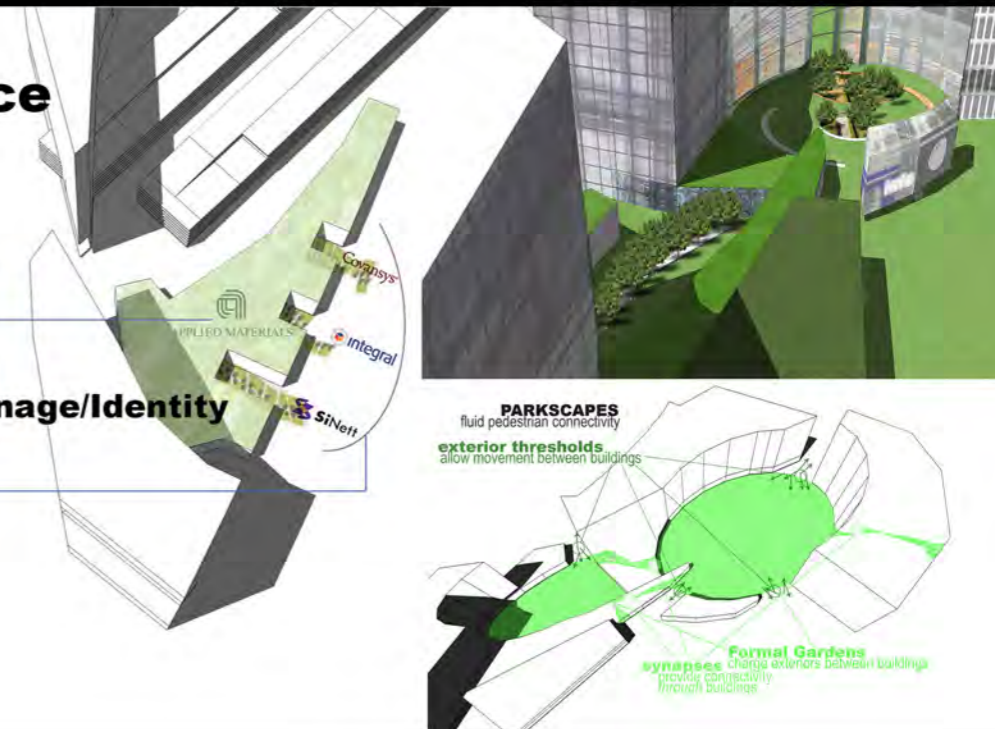
IT Incubation
G+2, steel-framed structures designed for ease of construction and tenant flexibility

IT Towers
stacked square-footage of processing zone.
Highly secured from mixed use lower levels and able to respond to large tenants' specificities

Green Space Strategy

Garden Level
The incubator rooftop becomes a very large garden groundplan accessible to tower tenants through special lobbies
courtyards which break up the incubator spaces become identifying features for individual tenants, allowing for a pleasurable link to the ecology edge for employee enjoyment

Signage/Identity



SIDHU Residence

Chandigarh, India 2006-2007

The Sidhu Residence was in the process of construction in late 2006, but the design had never been completed.

Modeled in AutoCAD
Rendered in Photoshop



Brick and concrete foundations had been laid, and concrete columns supporting brick infill walls had begun to rise from the ground, but the documents had never progressed past the point needed to bring the project this far in the construction process.

The solution was first to unpack the house- extending the series of liminal spaces implied by the interior geometries out onto the landscape. This series of exterior systems produces a perceptible rigor for the project, heightening the meaning of the interior spaces by providing an intense- collaged context.

With the south side of the house offering a nearly continuous armor against the desert sun, the north facade is left to erode away in shadow, providing both a visual and physical linkage of the interior with its context spaces.

To heighten the continuity of the design, a continuous system of folded surfaces is utilized to form a contrapuntal backbone for the bifurcated plan diagram. This folded system is highly tectonic, visually stimulating, and tactile, built of hand-crafted of wood members to provide a sense of scale tuned to the human body. This system is then carved and eroded to create niches for objects and recessed lighting.





Spectacular Vernacular

DESIGN / BUILD
STUDIO

Modeled in SketchUp
Rendered in Sketchup & Photoshop

Low-Cost, Low Energy Housing
for High Springs

North-central Florida is extremely hot and humid for several months of the year, and temperatures frequently drop below freezing in the winter. These conditions pose a problem for keeping interior temperatures comfortable without the use of energy intensive HVAC systems.

The traditional methods for dealing with the heat and humidity utilized natural ventilation. These methods are at odds with the sealed and insulated envelopes required for efficient HVAC use, posing a dilemma for architects and builders. The five design principles of the *Spectacular Vernacular* make it possible to do both.

In the spring of 2011, a design/build studio was planned as a collaboration between the City of High Springs, Florida and the School of Architecture at the University of Florida. Using the design principles of the *Spectacular Vernacular*, graduate and upper-division undergraduate students in architecture would design proposals for a low-cost single-family residence as a flagship component of the Douglas Neighborhood development plan.



Initial design proposal to High Springs City Commission and residents of the Douglas Neighborhood, responding to specific sites and stylistic integration with the larger neighborhood development and the desires of the future residents selected from the neighborhood.

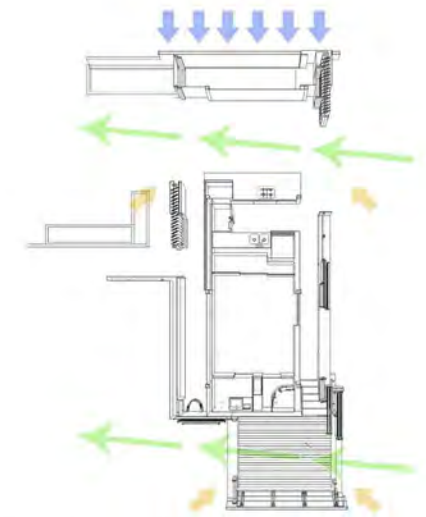
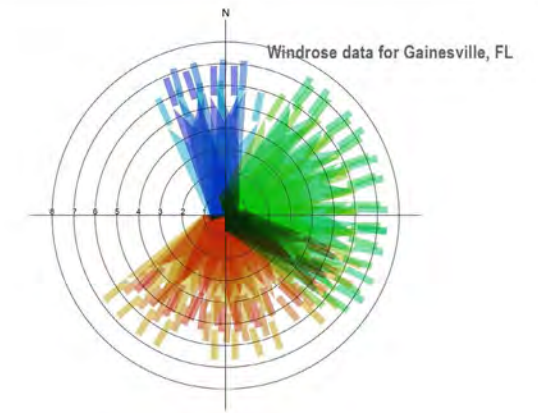


5 DESIGN GUIDELINES

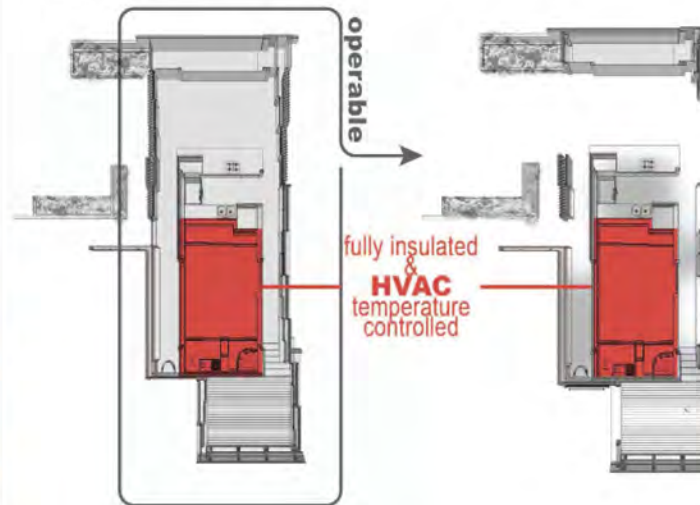
1 FOLLOW THE CLIMATE

North Central Florida is extremely hot and humid for several months of the year, and because of the humidity, sun shading is not enough to offer respite from the climate. During the hottest summer months, the wind is also little help; with average speeds measuring only 5-6 mph, there just isn't a lot of wind to replace the hot sticky air in a semi-enclosed space. Adding complications are the cold winter temperatures, frequently freezing at night during the coldest months. A low-energy house needs to respond to both of these uncomfortable, possibly dangerous climatic conditions.

The operable skin of the Spectacular Vernacular is designed to block cold winds from the north in the winter, channel winds and allow complete access to air currents when appropriate in the summer, while providing ample shade and spatial privacy.

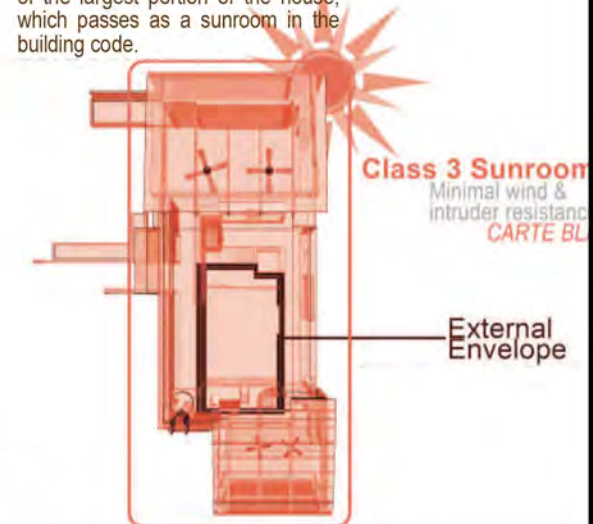


2 DOUBLE SKIN



3 SUNROOM

With the external wall assembly housed safely within a much larger secondary structure, a great deal of freedom can be granted to the design of the largest portion of the house, which passes as a sunroom in the building code.



4 VARIABLE PROGRAM



The house's three large spaces receive variable programming based on the whims of the occupants throughout the seasons. This kind of lack of specificity was all but eradicated by the modernists and their tenet that form must follow function. Most functions are comfortable in a variety of forms. This is a lesson that can be learned just as easily from a Cracker House as a Palladian Villa.

5 DISPLACEMENT VENTILATION



When wind fails to provide ample air-flow to relieve interior heat gain, the combination of a 'hot tin roof' and a crawl-space can create cool interior breezes. On the southern end of the house, a corrugated metal-wrapped wall and roof assembly is finished on the interior with insulated panelling, creating a plenum baked by the sun to temperatures as high as 200°F. This hot-space is vented at the top and bottom, creating air-flow as the air in the cavity heats and rises. Simultaneously, cool air from a shaded crawl space is sucked into the interior through porous wood plank flooring. Casement windows in the clerestory vent the hot air out of the interior overhead. Small fans in the clerestory space facilitate the process if necessary. The vent configuration can also be modified to heat the interior in cold winter months.