

FIU eFolio

F'2015



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Introduction

We again witness our students participating in amazing study abroad programs. The faculty embraces the importance of travel as an opportunity for our students to change their environments in order to see anew. This past summer we offered three programs: Japan, London/Berlin/Amsterdam, and Paris/Milan. Additionally, our students spent the entire Fall semester “living” new architecture, urbanism, and culture in Genoa. Each of these programs allowed our students to visit some of the most significant works of architecture in the world. The firsthand interaction with the built form cannot be simulated, and the authority of place allows our students to understand the power of the built form.

In the Fall 2015 semester, we also celebrated the silver anniversary of our Walk on Water event. This enduring annual ritual now includes the children of past participants. Moreover, in Fall 2015, our students and faculty continued to garner recognition for their creative efforts and won multiple awards at the 61st Annual AIA Miami Design Awards. Assistant Professor Nick Gelpi won an Honor Award of Excellence for “House Paint Pavilion” and students Matthew Wasala and Claudia Fernandez were recognized with student awards.

Finally, the department celebrated with the college and the university at the opening of the CARTA Innovation Lab. This amazing facility, equipped with 30 MakerBot Replicators, will provide for our students endless opportunities to develop their designs with the latest 3D printing technology.

This has been another dynamic semester for the department. I hope you enjoy this issue of eFolio.



Jason R. Chandler, AIA
Chair and Associate Professor
Department of Architecture
Florida International University College of Architecture + The Arts



FIU Architecture Design Studio Proposes Ideas for Mana Wynwood

Twenty-eight FIU Architecture students, led by Professors Alfredo Andia and Claudia Busch, exhibited their architectural visions for Mana Wynwood's 30-acre site. The exhibit *Mana Wynwood: A Neighborhood for the "Creative Class"* is the result of the students' research and work throughout the past semester in a sponsored studio course called Mana Wynwood Workshop.

Mana Wynwood's 30-acre site is located in the southwest area of Wynwood and is comprised of around 13 development blocks. Wynwood in the past 5 years has become an urban laboratory in the city of Miami for what social theorist Richard Florida calls the "creative class." According to Richard Florida, around 40 million American workers engage in creative activities and will be the leading force in the economy by creating more than 10 million new jobs in the next decade. The "creative class" is an ecology of workers that includes knowledge workers, creative professionals, artists, and intellectuals that prefer to work and live in communities that are highly tolerant and attractive to unconventionally innovative people.

The proposals developed by FIU Architecture students for the Mana Wynwood Workshop celebrate what has emerged in this neighborhood and explores design visions in an area that is destined to become the core of the future of Wynwood. Students selected one of 7 sites of Mana Wynwood and created design proposals using models and drawings. The intention of the design studio was to create a diverse neighborhood. Each building emerged as an individualized moment that gradually intensifies the large pedestrian space that will unify Wynwood. The visions presented suggest creative possibilities rather than finished design ideas.

The students who participated in *Mana Wynwood: A Neighborhood for the "Creative Class"* were:

Ashley Aguiar
Katherine Aroujo
Abdullah Assaf
Glenda Azar
Alberto Barbetti
Sharit Ben Asher
Eugenio Caceres
Vanessa Callejas
Mark Camero
Andrea Canaves Farinas
Jessica Cardenas
Daniela Corrales

Michelle Chedraui
Priscilla Cuadra
Gabriel Diaz – Aviles
Grecia Estrada
Patricia Elso
Jean Paul Fiedler
Christian Garcia
Mylene Garcia
Lorena Gomez
Juan Gatica
Olga Kusche-Iglesias
Alejandra Lugo

Julian Ramirez
Kevin Mandrini
Myrna Pelaez
Gonzalo Pardo
Vikki Tou Liu
Matt Wasala
Teri Watson



Architecture Students Claudia Fernandez and Matthew Wasala Win AIA Miami Awards

Architecture students Matthew Wasala and Claudia Fernandez were recognized with student awards on Friday, October 30th, 2015, at the 61st Annual AIA Miami Design Awards, which was hosted in the John S. and James L. Knight Concert Hall at The Adrienne Arsht Center for the Performing Arts.

Claudia Fernandez won the award for AIA Miami's Student of the Year for FIU. This award was given to her based on votes from the faculty in the FIU Department of Architecture. The faculty votes, in turn, were based on Fernandez's exceptional GPA.

Mathew Wasala won the Student Design Merit Award for "Design Ribbon," a public art and performance center for the Miami Design District.

Wasala's "Design Ribbon" was created for Visiting Assistant Professor Henry Rueda's Comprehensive Design Studio, in which all facets of design and construction are taken into account. Wasala explains that as the Design District moves forward in developing an even stronger presence of art, fashion, and all facets of design, the need for a performance venue and for a center for art to prosper is clear.

His "Design Ribbon" includes a library, multiple galleries, and a 250-seat auditorium as its public division. There is a private entrance granting controlled access to Artists-in-Residence studio dwellings as well as additional collaborative workspaces. The Grand Gallery is a focal point for the design as the building cladding wraps around the rest of the structure like multiple ribbons, all originating from the east wall. The unique structural challenges are met with a combination of cast-in-place concrete columns, shear walls, and waffle slabs. Where concrete walls are challenging to use, aluminum ribs are used to support the cladding. The floorplans follow the same logic as the twisting façade, as the walls fold into floors and roofs throughout. A ramp leads from the ground floor onto the second to continue through the breezeway and to a public terrace overlooking the library, as well as passes by the main entrance for the auditorium, allowing for the auditorium to remain open later than the library or galleries.

"I'm very proud of the project and to have received the award because it was from the summer semester of Comprehensive Design," said Wasala. "Professor Henry Rueda...was great in making all of this happen with me, and I couldn't have done it without him....[T]he project submitted was the project I had for the final of the Comprehensive Design Studio."



From left to right: Jason Chandler (Chair, FIU Architecture); Nick Gelpi (AIA Miami Honor Award of Excellence); Henry Rueda (Visiting Assistant Professor); Monica Cordera; Jaime Canaves (Professor) Claudia Fernandez (AIA Miami's Student of the Year for FIU), and Matthew Wasala (Student Design Merit Award).

3D Printed Models Join 'LISTEN TO THIS BUILDING' exhibition on Visual Impairment

On Thursday, September 24th, 2015, students from FIU Architecture exhibited 3D-printed models in the Miami Center of Architecture & Design's (MCAD) exhibition *LISTEN TO THIS BUILDING*.

LISTEN TO THIS BUILDING - which coincided with the 25th anniversary of the American with Disabilities Act - was a groundbreaking exhibition that sought to bridge the understanding between Downtown Miami architecture, accessibility, and independent publishing, specifically addressing visual impairments. This collaborative project between EXILE Books, MCAD, and Miami Lighthouse for the Blind, was believed to be the first architectural exhibit designed to address accessibility for persons with visual impairments.

The exhibit transformed Downtown Miami buildings into a living, multimedia representation via four components. Inside, tactile relief works of Downtown Miami architecture framed the MCAD gallery walls.

In *LISTEN TO THIS BUILDING*, guests wore blindfolds and slipped their hands into the sockets of a large box. The box contained a 3D-printed scale model of MCAD created by Master of Architecture students Patricia Elso and Matthew Wasala at the new CARTA Innovation Lab at The College of Architecture + The Arts | Miami Beach Urban Studios. Through a combination of 3D printing and laser cutting, the scaled model of MCAD was constructed and then partially hidden by a 2D, boxed representation of the building. Hand holes were strategically placed to allow the user to experience the architectural details of the building through the sense of touch.

"I think it's amazing to be able to utilize a combination of technologies – 3D printing and laser cutting – to create something that has been engaged by so many people," Wasala said. "I'm very proud that we were able to showcase the combined potential of having a small MakerBot army at our disposal for projects like this. It's a testament to the growing reliability and innovative potential of 3D printing as an industry."

The project was made possible by the new CARTA Innovation Lab, which officially opened on September 29th, 2015. The Innovation Lab, part of The College of Architecture + The Arts | Miami Beach Urban Studios, is the result of a partnership with Makerbot, a global leader in the desktop 3D printing industry. Supported by the John S. and James L. Knight Foundation, the CARTA Innovation Lab incorporates a MakerBot Innovation Center, a large-scale 3D printing installation designed to empower universities and organizations to innovate faster, collaborate better and compete more effectively.



Photograph provided courtesy of Irvans Augustine.

FIU Architecture Students “Walk on Water” for the Event’s Silver Anniversary

On November 15th, 2015, architecture students gathered on one end of the lake at FIU’s Steve and Dorothea Green Library. At 11:35am, they raced on floating shoes across the lake for a chance to win scholarships.

The first student to cross the body of water was Daniel Tabet (Team: Nil 01), who, with his teammate, won a scholarship award of \$1,000. The second-place student was Kevin Patterson (Team: Materials with No Methods), who won \$750. The third-place students, Stephanie Rico and Briana Hunter (Team: Thelma and Louise), won \$500.

Every year at FIU, students in the School of Architecture design and construct floating shoes and race across the 175-foot-wide campus lake. This year marks Walk on Water’s silver anniversary, which coincides with FIU’s 50th year as an institution.

In attendance was FIU President Mark B. Rosenberg, who shared remarks about the importance of the event to FIU’s campus and student life and the contribution of the School of Architecture to the Worlds Ahead reputation of the university.

Also in attendance was FIU Architecture Professor Jaime Canaves, who started the event 25 years ago for his Materials & Methods of Construction class. This class includes students from the FIU Departments of Architecture, Interior Architecture, and Landscape Architecture + Environmental and Urban Design. For all three disciplines, Canaves feels that Walk on Water is a perfect project.

“Through this project and its main event, the design students go through the whole process of designing and executing something from beginning to end,” said Canaves. “It’s a process that is similar to that of designing a building. It’s a very practical project that deals with load distribution and supporting weight.” Canaves explains that Walk on Water presents a problem, for which his students attempt to create a solution. This is the typical scenario for the designer beyond the classroom walls.

“For a building, we use a foundation,” said Canaves, “but, in this case, the shoes are the foundation.”

This year’s sponsors of Walk on Water include CGI Impact Resistant Windows & Doors, Dyplast Products, American Institute of Architects (AIA), Designer Resource Center, MIA Beer Company, HalfMoon Empandas, Kiwanis Club of Little Havana, and the FIU Alumni Association.

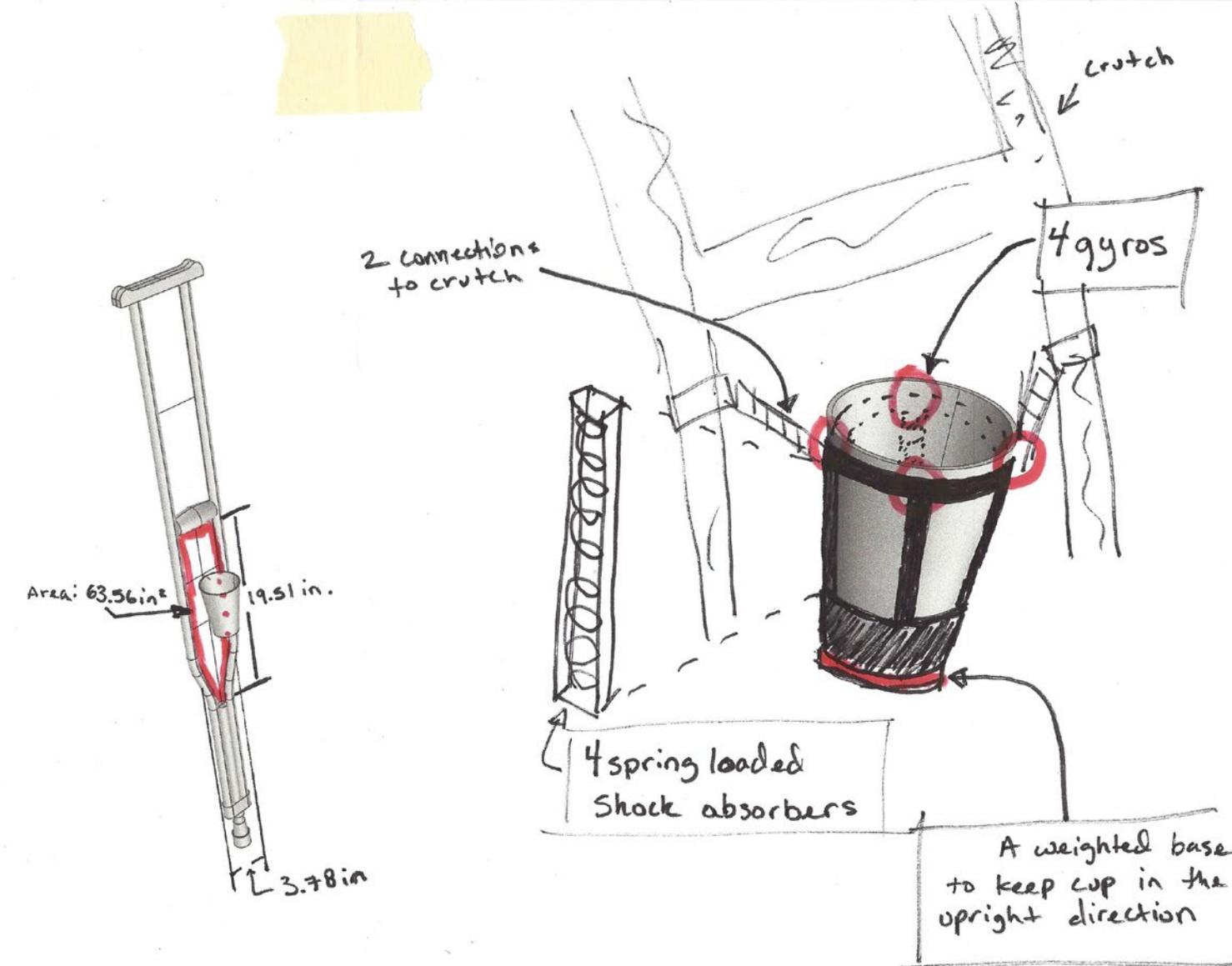


STUDENTS

Matthew Wasala attends the Bay Area Makeathon for Assistive Technology

Master of Architecture student Matthew Wasala attended the Bay Area Makeathon for Assistive Technology, hosted by TOM, UCP of the North Bay, and Google.org. The event took place from September 11th to 13th, 2015 at TechShop in San Francisco. The team he participated in, called "Carry Crutches," won the ALS Foundation's Prize4Life Award for Independence.

The Bay Area Makeathon was a gathering of makers, designers, therapists and many other professionals that created solutions that assist and empower people living with disabilities. The makeathon (a marathon of making) was a 72-hour event where working prototypes were developed. At the Bay Area Makeathon, teams of technology experts, together with people who live with disabilities (or who have an intimate knowledge of them), created solutions to specific challenges. The work space was equipped with all the machinery and tools needed for digital fabrication. The judges of the Bay Area Makeathon were Tom Chi, Dale Dougherty, Anupam Pathak, Jonathan Jaglom, Margaret Farman, Michael Dubno, Zebreda Dunham, and Shay Rishoni. (Source: www.tomglobal.org)



Design by "Carry Crutches" team

History and Architecture in London, Amsterdam, and Berlin

Faculty members Marilys Nepomechie, Jaime Canaves, and Eric Goldemberg took a group of students in Summer 2015 to London, Amsterdam, and Berlin.

The trip focused on architectural landmarks and projects in each of the three cities. In London, students visited Hyde Park, Trafalgar Square, the Museum of London, Roman structures, the Architectural Association, the Victoria and Albert | RIBA, Foster & Associates, London Bridge, Regent Street, the Olympic Stadium, St. Paul's Cathedral, and the Aquatic Center by Zaha Hadid.

In Amsterdam, students visited the NEMO Roof Plaza by Renzo Piano, the Van Gogh Museum, Borneo Sporenburg by West 8, the Museumpark by OMA, the Boijmans Museum by van der Steur and Robbbrecht Daem, and the Amsterdam Museum renovated by Bentheim Crouwel.

In Berlin, the architecture students saw the DZ Bank building by Frank Gehry, the Berlin Philharmonic Concert Hall and State Library by Hans Scharoun, the Museumsinsel, the Memorial to the Murdered Jews of Europe by Peter Eisenman, and Checkpoint Charlie, which was the crossing point between East Berlin and West Berlin during the Cold War.



Japan: A Look into Contemporary Japanese Architecture and Environment Sustainability Strategies for Tokyo

Students studied abroad in Japan with Faculty Alfredo Andia, Camilo Rosales, Eric Goldemberg, and Thomas Spiegelhalter in Summer 2015.

The study abroad program focused on visits to many examples of contemporary Japanese architecture, Japanese design, and environment sustainability strategies for the city of Tokyo. During the program, students visited the Edo-Tokyo Museum, the Omotesando District, Odaiba Artificial Island, Shibuya, Ahoyama neighborhood, the National Art Center, and the Yokohama Pier. On their itinerary was also the Tokyo International Forum, the Senso-Ji Temple, the Imperial Palace East Gardens, Ueno Park, the Tokyo National Museum, and the Gallery of Horyuji Treasures.



Students Travel to Paris and Milan to Study Skyscraper Urbanism

In Summer 2015, students traveled to Paris and Milan. Faculty David Rifkind, Malik Benjamin, and Gray Read guided the students through the study abroad trip in Europe.

During the trip, students studied in the cities of Paris, Besancon, and Lyon in France and in Milan, Italy. While in France, they visited the Louvre, the Bibliothèque Sainte-Geneviève, the Panthéon, the Arab World Institute, and Center Pompidou. They also visited structures like Maisons Jaoul, La Roche, Villa Planeix, Ronchamp, and La Tourette. In Milan, they toured the Duomo, Galleria Vittorio Emanuele II, the Castello Sforzeco, and Casa Rustici.



Senior Instructor Eric Peterson Teaches in Genoa, Italy

In the Fall semester of 2015, the FIU Department of Architecture sent twenty-three students to study in Genoa, Italy as part of the Architecture in Genoa Study Abroad Program. The class was almost evenly split between 4th- and 5th-year graduate students who traveled abroad to gain first-hand experience of important architectural projects and to develop an advanced design proposal in a radically different urban context.

For the first time in the program's history, the department had one of their own faculty members in residence for the entire semester to teach courses and lead study trips to various cities in Italy, France, and Switzerland. Senior Instructor Eric Peterson travelled with the students to Rome, Florence, Milan, Como, Turin, Pisa, Lucca, Lyon, and Basel to visit iconic architectural sites, including projects by Alberti, Michelangelo, Bernini, Borromini, Terragni, Le Corbusier, Zumthor, Piano, MVRDV, Herzog and de Meuron, Calatrava, and Rem Koolhaas.

"It was a fantastic opportunity for the students to see both historic and contemporary projects by some of the most influential architects in history," said Peterson. "These are projects they have studied in text books - to see them first hand is a tremendous experience."

In addition to teaching a seminar course that focused on architectural precedent, Peterson attended an Italian language class with the students, coordinated a course on twentieth-century Italian art and architecture, and taught a vertical design studio.

Chair of FIU Architecture Jason Chandler visited at midterm to review the students' work and to lead the study trip to Milan and Como.

"I am excited that we have FIU faculty teaching in Genoa," said Chandler. "It helps to foster a greater sense of connection between what the students learn in Italy and the work that they do here in Miami."

In Fall 2016, a new class of architecture students will travel to Genoa, and the teaching model will be further enhanced with additional visits by FIU faculty members, who will lead workshops and study trips while pursuing research opportunities in the region.

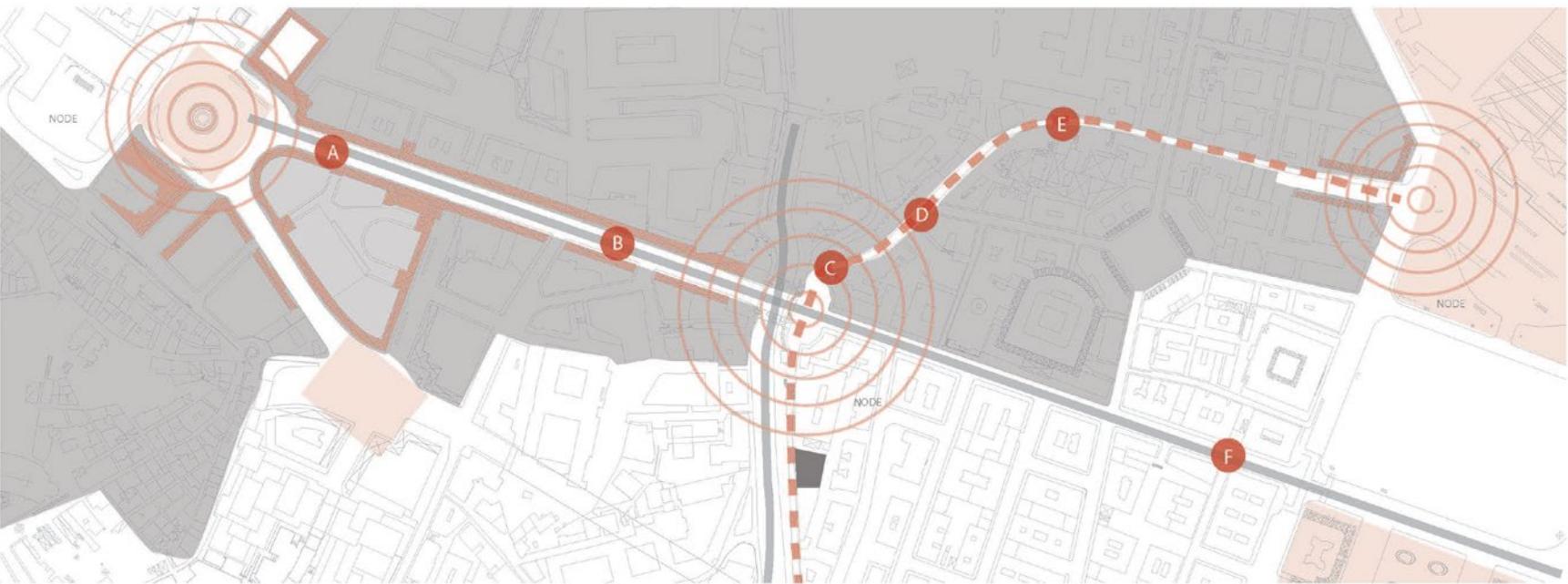
This article was written by Senior Instructor Eric Peterson.



Students visit Renzo Piano's office in Genoa, Italy

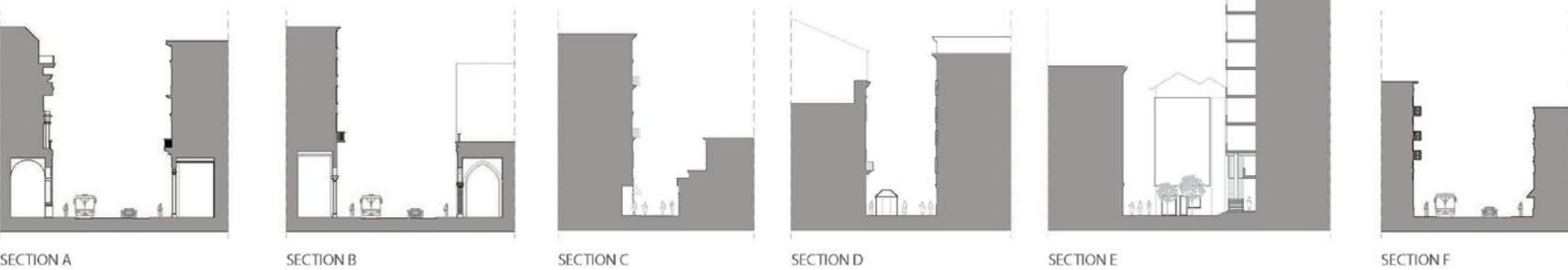
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URBAN ANALYSIS // CONNECTIVITY CONCEPT DIAGRAM

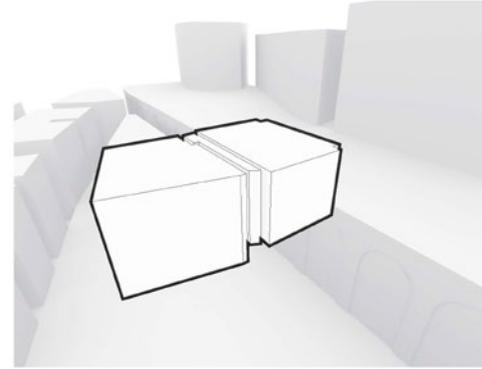


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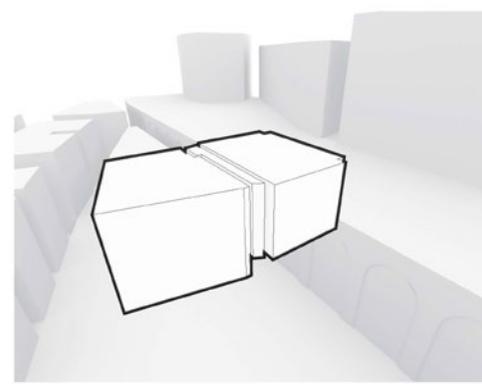
VIA SAN VINCENZO



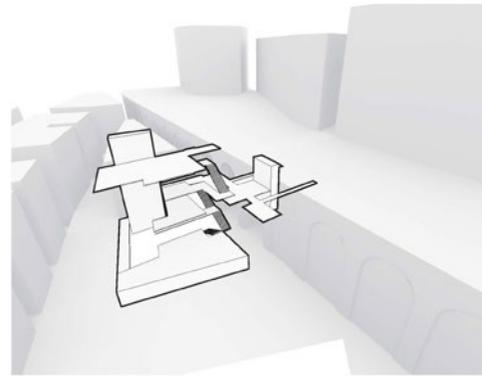
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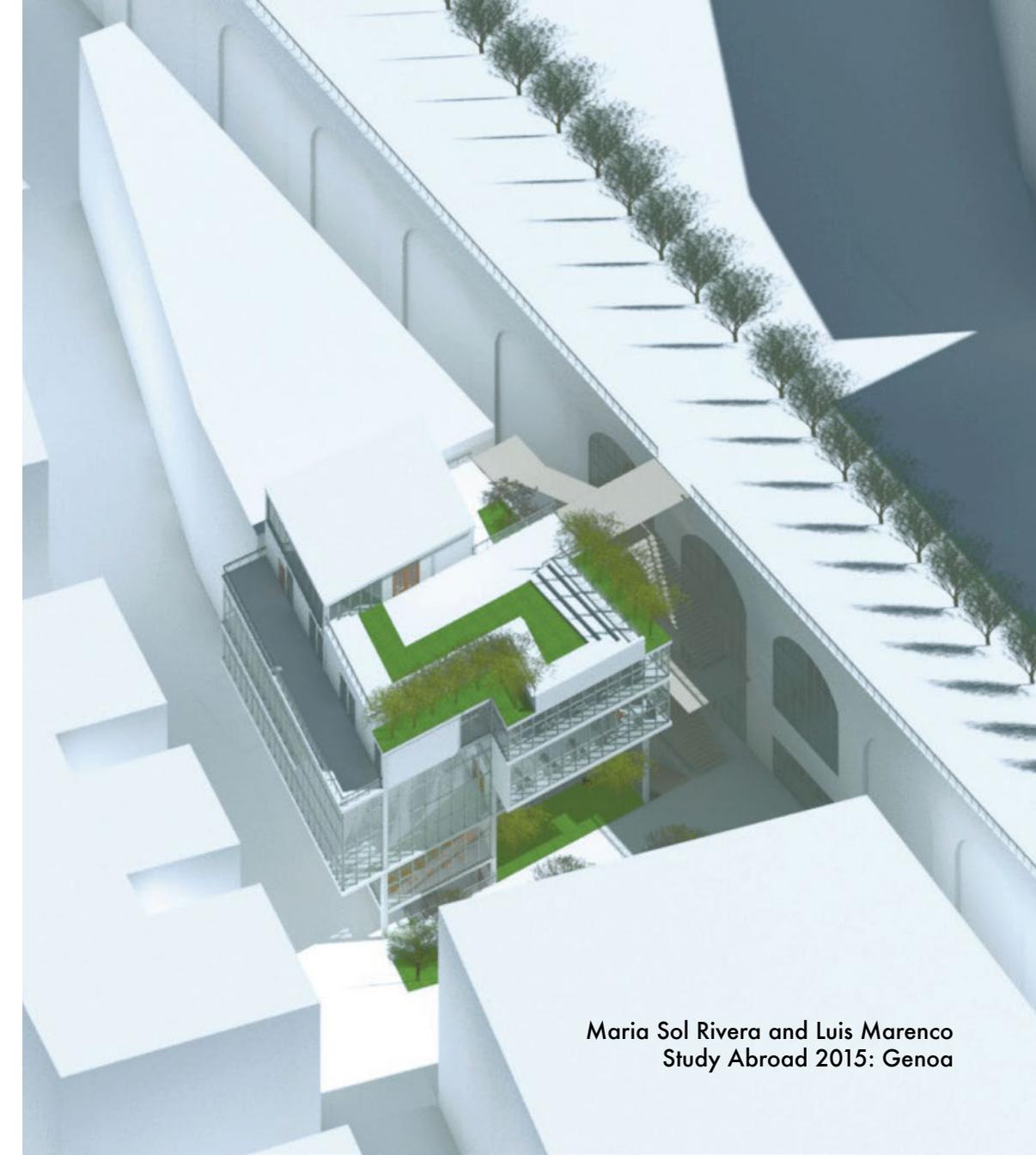
VARIATION A: MASSING STUDY
3 COMPONENTS



VARIATION A: MASSING STUDY



VARIATION C: CIRCULATION CORE
PUBLIC PIAZZAS



Maria Sol Rivera and Luis Marengo
Study Abroad 2015: Genoa

STUDENTS

Architecture Students and Alumnae Participate in “Envisioning our Future on the Water: Talks with the Next Generation”

On November 10th, 2015, FIU Architecture Alumna Ana Benatuil (FIU MArch '13) joined current MAA students Crismary Pascarella (FIU MArch '15) and Marny Pereda (Pratt Institute BArch '14) in a multi-university roundtable discussion at the Miami Center for Architecture & Design.

Part of the programming around the MCAD exhibition *Florida 3.0, Re-inventing our Future*, the event “Envisioning our Future on the Water: Talks with the Next Generation” brought together architecture students and faculty from Florida International University, the University of Florida and the University of Miami in a conversation about possible 21st century responses to climate change and sea level rise in the South Florida Region. Exhibition co-curator and UF Associate Professor Nancy Clark moderated the discussion about academic work currently underway in the three design programs.

ALUMNI

Madeline Gannon featured on Popular Science for 3D Printed Work

Alumna Madeline Gannon (M.Arch '10), head of MADLAB.CC, was featured on Popular Science for her work in 3D printing, her efforts to help expand the medium to the masses, and her new software “Tactum.”

Tactum allows a user to mold and shape a projected image with innate hand gestures and then 3D print this image. “Reverb” is an additional software that converts the manipulated, projected image into a mesh for 3D printing.

Gannon envisions using this method for creating prosthetics and other medical devices that are worn on the body.

Gannon will continue her vision as she works as an artist-in-residence at Autodesk Research, which is a leading 3D design software company. Gannon is a researcher, designer, and educator at Carnegie Mellon University.



FIU College of Architecture + The Arts Partners with MakerBot to Open 3D Printing Lab

Florida International University (FIU), the fourth largest university in the United States, and MakerBot, a global leader in the desktop 3D printing industry, opened the new CARTA Innovation Lab at the FIU College of Architecture + The Arts (CARTA) Miami Beach Urban Studios on September 29th, 2015. Supported by the John S. and James L. Knight Foundation, the FIU Innovation Lab incorporates a MakerBot Innovation Center, a large-scale 3D printing installation designed to empower universities and organizations to innovate faster, collaborate better, and compete more effectively.

FIU is the first university in the United States to house a MakerBot Innovation Center in a college focused on design and the arts where students, faculty, and local entrepreneurs will work on creative projects and explore the intersection of art and technology.

Miami's startup scene has seen enormous growth over the last few years, but the city has few established makerspaces where entrepreneurs can experiment and build. The CARTA Innovation Lab will help to fill this gap, inviting the community and providing the next generation of Miami talent with a space to realize their ideas. The 3D printing lab will be part of the Urban Studios, which provide expansive space for design and fine arts students, practice and performance spaces for music and theatre students, and expansive gallery/exhibition spaces and classroom space for use by the entire College. The location is an ideal base for studies in arts, design, communication, and entrepreneurship, and for exposure to the wealth of arts organizations and design firms located in Miami Beach.

The CARTA Innovation Lab features an open layout to encourage collaboration and will be made available to the community. It will bring together students from various disciplines with local entrepreneurs and artists to work on creative projects, develop new products, and conduct research. The lab will support a range of activities, from dual-enrollment programs for local high school students to for-credit classes for FIU students and start-up programs for recent graduates.

Support for the CARTA Innovation Lab is a part of the Knight Foundation's efforts to invest in Miami's emerging innovators and entrepreneurs, as a tool to build the community while fostering talent and expanding economic opportunity. Over the past three years, the Knight Foundation has made more than 100 investments in entrepreneurship in South Florida.

The CARTA Innovation Lab at the Miami Beach Urban Studios houses a MakerBot Innovation Center, a custom, centralized and scalable 3D printing solution. The lab has been built in conjunction with training from MakerBot for university staff by the MakerBot Learning team of highly trained 3D printing experts. The CARTA Innovation Lab includes 30 MakerBot Replicator 3D Printers (30 MakerBot Replicator Desktop 3D Printers, 1 MakerBot Replicator Z18 3D Printer, 1 MakerBot Replicator Mini Compact 3D Printer), a large supply of MakerBot PLA Filament, 5 MakerBot Digitizer™ Desktop 3D Scanners, and the comprehensive MakerBot MakerCare® protection plan. At the core of the MakerBot Innovation Center is the MakerBot Innovation Center Management Platform, a proprietary 3D printing software platform that links the MakerBot Replicator 3D Printers together, streamlines productivity and staffing of the center, and provides remote access, print queuing, and mass production of 3D prints.



From left to right: Mark B. Rosenberg (FIU President), Ranu Jung (Interim Dean, College of Engineering and Computing)
From center to right: John Stuart (Associate Dean for Cultural and Community Engagement, Director of The College of Architecture + The Arts | Miami Beach Urban Studios), Eric Goldemberg (Associate Professor), Jacek Kolasinski (Chair, FIU Art + Art History), Orlando Garcia (Urban Studios Composer-in-Residence), Brian Schriener (Dean, FIU CARTA), Jason Chandler (Chair, FIU Architecture; Interim Chair, FIU LAEUD), Kenneth G. Furton (FIU Provost and Executive Vice President), Nick Gelpi (Assistant Professor)

FIU Architecture Professor Nick Gelpi Wins AIA Miami Honor Award of Excellence for “House Paint Pavilion” in Detroit

GELPI Projects, founded by Assistant Professor Nick Gelpi, won an Honor Award of Excellence on Friday, October 30th, 2015 at the 61st Annual AIA Miami Design Awards, which was hosted in the John S. and James L. Knight Concert Hall at The Adrienne Arsht Center for the Performing Arts. GELPI Projects won the award in the category of Divine Detail for “House Paint Pavilion,” an installation created with painter Markus Linnenbrink for the opening exhibition of Wasserman Projects in Detroit.

“House Paint Pavilion” is 24-by-25 feet, with interior dimensions of 25-by-16 feet, which makes up the approximate size of a small house. This pavilion was designed to be painted. Conceived of as an inhabitable painting in the shape of a house, “House Paint Pavilion” blurs the surfaces between the walls of a building and the painting displayed upon it. On the exterior, the painting bleeds through the surface as a series of engraved lines, which mimic the appearance of unusually configured exterior house siding. Visitors are invited to enter or to explore the outside of the pavilion and peek inside through small windows strangely positioned around the exterior. Each of the individual openings frames a unique perspective of the pavilion’s interior, creating multiple unique views extracted from a single composition based on privileged perspectives in space. (Source: paleoarch.com)

The pavilion is built in two symmetrical halves on a steel frame with Detroit-sourced industrial casters and is designed to be split open or pushed back together along a central seam. When opened, the two halves create a space in-between, allowing the surrounding environment to flow into the pavilion. When together, they create an interior environment. (Source: paleoarch.com)

The pavilion is constructed of standard residential wood framing on 16-inch spacing, joined with laser-cut steel gusset plates. Birch plywood panels were machined with grooves on the exterior displaying the underlying composition of the interior painting. (Source: paleoarch.com)

The jury that decided to award GELPI Projects the AIA Miami Honor Award of Excellence said of “House Paint Pavilion”: “The contrast of the two drives the interest, but what holds the interest is the attention to detail, how the lines track...how they conform to construction at the exterior, and how they ignore the construction and even bleed between the lines at the exterior.”



Image of “House Painted Pavilion” provided courtesy of GELPI Projects.

Eric Goldemberg's 3D-Printed Musical Instruments Tour the World and Attract Global Media

Associate Professor Eric Goldemberg and MONAD Studio partner Veronica Zalcborg were featured for their 3D-printed design work on prominent media outlets, which included but were not limited to BBC News, Forbes, *The Guardian*, FOX News, Discovery Channel, CNBC, CCTV (China), Gizmodo, and CNET.

MONAD Studio's 3D-printed design work also toured in an international lecture/exhibition/performance across the globe in a roster of cities that included Chengdu (China), Moscow, St.Petersburg (Russia), Tokyo, and Sendai (Japan).

In addition to this coverage, the 3D work was featured in the Experimental Architecture Biennial in Prague, Design Matters in LA, and NOW Contemporary Art in Wynwood.

From September 3rd to 15th, 2015, MONAD Studio exhibited their 3D printed work in the Experimental Architecture Biennial - Volume#2: New Manifesto, which was an exhibition and symposium in Prague. Professor Goldemberg spoke at the New Manifesto symposium on September 15th, 2015. As part of his presentation, a mini-concert featuring the 3D-printed travel bass guitar took place. Local musicians participated in the concert.

On October 10th, MONAD Studio exhibited their work in NOW Contemporary Art in Wynwood. The exhibit focused on Pulsation, which MONAD Studio describes as the way the 3D printed sculptures/instruments act as sonic prosthetics that expound upon the posture and inherent rhythmical capacities of the human body.

On November 7th, 2015 at Design Matters 1 in Los Angeles, Associate Professor Eric Goldemberg and MONAD Studio partner Veronica Zalcborg exhibited their 3D-printed, 2-stringed piezoelectric. MONAD Studio and musician/luthier Scott F. Hall displayed their piece in the exhibition *Xenotypes*. The exhibition was curated by Juan Azulay and Carlo Aiello for Design Matters and organized by eVolo Magazine and Makeform Media.

MONAD Studio is integrating architecture and music with the collaboration of seven FIU Architecture students (Jack Garcia, Stephanie Colon, Zoe Russian, Stephany Guinan, Albert Elias, Hex Ceballos, and Manuel Perez-Trujillo). This is an interdisciplinary project with musician/luthier Scott F. Hall to create a sonic installation.



The 3D-printed, 2-stringed piezoelectric, designed by MONAD Studio/Eric Goldemberg + Veronica Zalcborg with musician-luthier Scott F. Hall, at Design Matters in LA.

FIU Architects and Engineers use Augmented Reality to Address “Building Science” Educational Challenges

In an interdisciplinary, multi-institutional effort, FIU College of Architecture + The Arts Associate Dean and Architecture Professor, Shahin Vassigh and her team have been awarded \$228,000 by the National Science foundation-Improving Undergraduate STEM Education Program (NSF-IUSE) to develop and examine an immersive learning environment. The project Co-Investigators at FIU includes Dr. Cheng-Xian Lin from Mechanical and Materials Engineering, Dr. Debra Davis from Computing and Information Sciences, and Dr. Ali Mostafavidarani from OHL School of Construction. The project collaborators outside of FIU include Dr. Winifred Newman, from the Department of Architecture at the University of Arkansas, and Dr. Amir Behzadan, from the Department of Technology and Construction Management at Missouri State University.

The project is the outcome of previous work supported by The College of Architecture + the Arts and Sustainable Built Environment and Informatics Organized Research group at FIU. The project “Strategies for Learning: Augmented Reality and Collaborative Problem-Solving for Building Sciences” builds on new research that shows how technology-mediated learning environments can enhance learning. In real time, Augmented Reality (AR) - the ability to enhance or modify the real world environment with computer-generated information like graphics and GPS data - is bringing in a new dimension to learning. This project integrates AR with Building Information Modeling (BIM), visual simulations, and interactive lessons to create “Eco-construction,” or “Ecocon,” a tool for helping students to better understand the complex systems and processes of building design and construction.

As a part of interdisciplinary course work, student teams will utilize the Ecocon application for field investigations of various buildings located on the FIU campus. Once arriving at the building site, students activate the Ecocon application using their handheld devices or Google Glasses. The GPS-supported Ecocon application then downloads a digital model of the building, while providing location-sensitive information, allowing the model to work with the students’ locations and adjust views accordingly. As if having interactive x-ray vision, students move around the building and view through the building material, looking at various components such as the façade system, structure, foundation, mechanical systems, etc. Student teams gather critical information on the building by combining pictures of the actual building and the screen captures from their handheld device. The information is then used to complete interdisciplinary team assignments.

Ecocon also includes a learning interface that delivers relevant lessons on an on-demand basis. As students view the building model on their handheld devices, they can quarry and pull up lessons on what they are observing. The response to these lessons could range from introductory concepts communicated across disciplines to more in-depth lessons on analytical methods and processes for in-discipline learning.

Ecocon will be used to bridge three building science courses at FIU in the Architecture, Construction Management, and Mechanical Engineering departments, with a focus on sustainable building design and construction. Project implementation will address the foundational research question of how the integration of immersive technology, with BIM models and interactive learning simulations, impact conceptual development and interdisciplinary learning.



Marilys Nepomechie Invited as Member of Mayor's Institute on City Design

Associate Dean and Architecture Professor Marilyns Nepomechie was an invited member of the professional design resource team for the Fall Mayor's Institute on City Design (MICD) in Fayetteville, Arkansas. Hosted by the University of Arkansas Center for Community Design 1, the MICD Session focused on urban issues brought by mayors from across the southeast United States, including Arkansas, Virginia, South Carolina and Florida. Invited members of the consulting resource team for the fall session included design and infrastructure professionals, developers, and academics based in New York, Pennsylvania, New Jersey, Colorado, Connecticut, New Mexico and Florida. MICD is a leadership initiative of the National Endowment for the Arts, held in partnership with the American Architectural Foundation and the United States Conference of Mayors.

Since 1986, the Mayors' Institute on City Design has helped transform communities through design by preparing mayors to be the chief urban designers of their cities. MICD organizes sessions in which mayors engage leading design experts to find solutions to the most critical urban design challenges facing their cities. Sessions are organized around case-study problems. Each mayor presents a problem from his or her city and gets feedback from other mayors and design experts. (Source: www.micd.org)

Thomas Spiegelhalter Speaks About Sustainability at Numerous Workshops and Conferences

In the past year, Associated Professor Thomas Spiegelhalter attended various workshops and conferences and spoke about energy efficiency and sustainability.

In June 2015, Spiegelhalter presented and led workshops on Energy Efficiency and Sustainability at the 5th Annual Caribbean Urban Forum (CUF5) hosted by UN-Habitat in St. Lucia. In September 2015, he was featured at the MUNDANEUM 2015 in Managua, Nicaragua, an international architecture conference that has been hosted every year in Central and South America since 1998. In November 2015, Spiegelhalter was invited on behalf of the Association of Climate Change Officers and the National 2015 Rising Seas Summit Steering Committee to present some of his 25 years of collaborative design and research work in Europe, the U.S. and, specifically, at FIU at the 3rd annual National Rising Seas Summit in Boston. Spiegelhalter was a member of the panel for "Adaptive Infrastructure" at the summit.

In addition to attending these workshop and conferences in 2015, Spiegelhalter won the International Award for Excellence for Volume 3 of *The International Journal of the Constructed Environment*, for his work entitled "New Design Protocols for Industrial-scaled Modes of Production for Carbon Neutral Buildings."

ACADEMICS

Academics

The Department of Architecture offers the Master of Architecture degree and the Master of Arts in Architecture degree. Whether you are a high school graduate, possess a 2- or 4-year college degree, or have a professional degree in architecture, our architecture program offers customizable tracks that range from 1 year to 6 years.

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In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

The Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree. The Department of Architecture offers the following NAAB-accredited degree programs: M. Arch. (high school degree + 175 credits), M. Arch. (pre-professional degree + 60 credits), and M. Arch. (non-pre-professional degree + 105 credits). The next accreditation visit is scheduled for 2017.

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You can visit us in the Paul L. Cejas School of Architecture Building, Office 272, Monday through Friday, from 8:30am to 5:00pm. Call (305) 348-7500 or email us at cartaadv@fiu.edu to make an appointment.

FIU Architecture eFolio, Fall 2015

Jason R. Chandler, A.I.A.
Chair

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The FIU Department of Architecture trains students in the profession of architecture to become thoughtful practitioners, critical thinkers, and broad visionaries with the skills and knowledge to enhance their communities and the built environment around them. The Department has a world-class faculty engaged in architectural practice and research on issues of design, sustainability, history/theory/criticism, sea-level rise, digital fabrication, and a whole host of interdisciplinary areas that advance knowledge in South Florida and across the globe.

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