[Acknowledgements]

Family
for their sacrifices, support, and guidance

Advisors
for their guidance and support

Friends
you know who you are

Studio Family
all of you have been a great support through the years

Professors

Without the help, guidance, and support of everyone in my life I would not be where I am today. Over the past five years I have learned to be a better designer and better person as a result.
architecture & identity
images of final design
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These images of the final project illustrate how the users influence the overall identity of the building. Each container helps create a very diverse façade that is constantly changing and evolving.
Architecture & Identity

Architecture today tends to focus on making a single statement for a building, rather than on expressing the varied occupants of the building. Many people believe that a buildings image is much more important than its individual users. However, when a building is primarily designed for its users, such as studios and dormatories, it is not logically fit that the building should have one single expression. This project will examine the concept of creating an architectural expression of identity within a building typography that typically has very little expression of its users and is static. Through research and exploration this project will evolve into a building which can evolve throughout time to represent its constantly changing inhabitant. The design utilizes elements that can be added/subtracted to the building on a regular basis.

“Architecture should offer an incentive to its users to influence it whenever possible, not merely to reinforce its identity, but more especially to enhance and affirm the identity of its users.”

Herman Hertzberger, Lessons for Students in Architecture.
Like snowflakes, no two men are created equal. Men and women cannot help but be individuals, and yet many relinquish their individuality to others. When we give up our individuality, we give up the power to make decisions for ourselves. When we give up these individualistic characteristics we give other beings the power to make these decisions for us. These people, like others, have their own views, beliefs, morals, and identity which may mean they may not act in accordance with our own views.

Although each human has their own individual identity, we cannot act collectively. Every system of humans depends on each person within the system making the individual decision to act as a group. Each person in a group has a choice to follow the direction they are going or to break away. Since we as humans have such an advanced reasoning ability we lack the instincts to act collectively. Collective behavior requires the relinquishment of individual decisions, which is not possible in humans.

Collectivist’s holds that collections of men are physical things – this abstract ideas such as “crowd” and “group” are entities in and of themselves. We often think of large groups of people in the abstract. Take for example our government. Our government is such a large and complicated system that it is difficult to think about in terms of individuals within a group. We must not forget that no matter the size of a system, it will always be composed of individual people. All systems work because individuals within the systems are making decisions toward a common goal. We must not forget the individuals that create a system for they are the reason the systems exist.

Collectivist can be destructive in many ways if we forget that individuals make up all human systems. If we consider systems in the abstract as being entities themselves, we lose sight of the people within the system. We would rely more on the overall systems rather than the individuals within it.
Identity is defined as the set of characteristics by which a thing is recognized or known. The set of behavioral or personal traits by which an individual is recognized as a member of a group.

We can divide the notion of “identity” into two parts. One is individual identity - this is the identity of ID cards, fingerprints and authentication - it is one’s singular identity as a unique individual. The other is social identity - this is the identity of accents, clothing choices, and characteristic expressions - it is one’s presentation of self within a society.
Architectural design today often does not concern itself with the individuality, and rather looks at projects from a purely collective view. Buildings are designed and built without and expression or recognition of the needs of the individuals within the building. The façade of these buildings overlooks the individuals within the buildings, and the users must bear the identity of the building. This can be acceptable in large corporate office buildings. While the users certainly retain their own identities, they are part of larger corporate identity while they occupy the building.

Is it possible for a building of any type to represent the identities of its different users? Since buildings users are constantly changing is it possible for the building to change as well?
A great example of architecture not paying attention to the individual identities of its users would be apartment buildings and dormitories. Many people spend a majority of their day in their apartments. The tenants are forced to take on the identity of the overall architectural statement instead of their own individual identities. Like an office building, apartment buildings and dormitories take on a unified façade, but unlike office buildings, these specific buildings are home to many different constantly changing individuals with different identities. The users needs seem to be second to those of the overall building.

“Diversity encourages creativity, while repetition anaesthetizes it. Often architecture is too homogeneous, sometimes because the type is simply repeated, sometimes because of a self-centered desire to see buildings apart from their context, sometimes because of an exaggerated aesthetic commitment which tends to a precise ‘architects’ architecture.”

Lucien Kroll. An Architecture of Complexity
**Flexibility:**

One of the main issues for the design of this building will be flexibility and adaptability. No two people are going to want their condo or living space the same. By allowing the building to be flexible and adaptable to each user it will relate better to their individual issues. The living units will be able to be shaped and configured to each of the users wants and needs. The building needs to have a mechanical system that can be flexible and adapt to the different configuration of the building. The gallery spaces should be flexible to allow for different types of art work to be displayed. The building will be friendlier to its users if it is adaptable and flexible. Since the users of living units are not intended to be long term the building has to be flexible. The users of the building will be able to shape and configure each living unit to their specifications. Users will be able to pick and apply the materials for both the exterior and interior of the units, which will help bring their individual identities to the outside.

In order for this building to be flexible there must be a system set up which allows element to be inserted and extracted easily. This brings up a set of questions that I will be looking at throughout the project.

_Can the building be designed to be totally flexible and adaptable?_

_Is it possible to have a flexible mechanical system?_

_Will it be possible to create living units that will fit together?_

_How will mechanical systems be inserted in each unit?_

_How will the individual units be moved around?_

_What type of environment would flexibility create for the users?_

_How easy/hard will it be to maneuver the units?_

_Can you units be such that they already have their own structure built into them?_

_Can the users manipulate more than the facades?_
This diagram illustrates the strength of shipping containers. Compared to standard modular housing the shipping containers are much stronger and are designed to withstand many climatic conditions. Shipping containers are perfect for this design because they are self-contained objects which are structurally sound and weather resistant.

1. Racking/Shear Load
   16,800 lb (680 lb required by code)
2. Side wall Lateral Load
   234 psf (20 psf required by code)
3. End Wall Lateral Load
   366 psf (20 required by code)
4. Racking/shear load
   33,600 lb (1,600 lb required by code)
5. Stacking/ Axial Load
   211,670 lb/post (500 lb/post required by code)
6. Roof/uniform load
   300 psf (20 psf required by code)
7. Floor/uniform load
   101 psf (40 psf required by code)

**objectives/conclusion**
- explore how buildings can reflect the identities of their inhabitants, designers or builders.
- explore how architecture is influenced by the people who design and inhabit it, and the environment that surrounds it.
- allow students the opportunity to design studio spaces that incorporate their ability to creatively problem-solve within a set of constraints.
- allow the ideas and designs of the containers to evolve and change through time. This will be done by the students and staff. The use of new materials and programs will allow these ideas to continue to grow and evolve.
- create gallery spaces that will be flexible to allow for many different types of exhibits.
- utilize shipping containers in the design.
The idea behind the container architecture of Wes Jones: Partners is the ability to pack, move, and unpack as a single unit. It can be shipped and stored and is very durable because it is constructed out of a shipping container. The main advantage in using such a container is the ability to transport them to sites that cannot be reached by conventional construction methods. These units are all-inclusive and can be deployed in a matter of hours.

Wes Jones: Partners
http://www.thedwellhouse.com
These selected projects were designed using shipping containers. The shipping containers were utilized because they are easily manipulated and transformed. The examples shown here range from projects as small as studios to large housing projects. The design is cheap and easily constructed in a short period of time.
The two most characteristic aspects of Miami’s culture are its newness and its incredible diversity. A mix of great culture, events, business and shopping make Downtown Miami one of the most visited parts of the greater Miami area. There are some great museums in Downtown Miami, such as the Miami Art Museum, the Historical Museum of Southern Florida along with the Miami-Dade Cultural Center. Downtown Miami has become the “Gateway to Freedom” for many Cuban refugees with the building of the Freedom Tower in 1925, Miami’s first skyscraper. There are also many events that occur in Downtown Miami. The Miami Heat hosts their games at the American Airlines Arena while the University of Miami Football team play in the Orange Bowl Stadium. The historic Buena Vista Village is just north of Downtown Miami and is the charming home of the Miami Design District. The design district offers many interior design showrooms, art studios, galleries, movie production, and theatrical costume companies and much more.
The site for this project is located in downtown Miami, Florida. Miami has a very distinct design district which is located just north of the proposed site. By providing lecture halls, conference rooms, gallery space, as well as studio space the site will have a better connection with the surrounding community. Having a design studio/campus located in downtown Miami will help draw the design district into the heart of the city.

The city of Miami is in the process of laying out a master plan for the site. The master plan includes buildings that will be home to the Miami Museum of Modern Art. A mix of great culture, events, business and shopping make Downtown Miami one of the most visited parts of the greater Miami area. There are some great museums in Downtown Miami, such as the Miami Art Museum, the Historical Museum of Southern Florida along with the Miami-Dade Cultural Center. Downtown Miami has become the “Gateway to Freedom” for many Cuban refugees with the building of the Freedom Tower in 1925, Miami’s first skyscraper. There are also many events that occur in Downtown Miami. The Miami Heat hosts their games at the American Airlines Arena while the University of Miami Football team play in the Orange Bowl Stadium.

The historic Buena Vista Village is just north of Downtown Miami and is the charming home of the Miami Design District. The design district offers many interior design showrooms, art studios, galleries, movie production, and theatrical costume companies and much more.
Site Map Key
A. Bicentennial park (site)
B. American Airlines Arena (AAA)
C. Downtown Miami, Florida
D. Bayside Market
E. Performing Arts Center
F. Design District
G. Biscayne Bay
H. North Miami

[architecture & identity]
[architecture & identity]
In all practical terms, today Bicentennial park has one accessible entrance, no neighbors, no attractions (other than concerts and scheduled events), no pedestrian continuity, and views throughout the park are cut off.
These pictures of the current site conditions show how badly maintained the site is. One portion of the site is currently being used as storage for construction equipment. This shows that the site is currently not a main node of activity in downtown Miami. Although people do gather on the site for activities such as concerts and conventions they do not go to the site just to enjoy it.
Bicentennial Park is located on beautiful Biscayne Bay, in downtown Miami. Bicentennial Park is a 30-acre, open park with an event capacity of 45,000 (based on event infrastructure). Given the wide-open space, there are several different event set-ups that take place: everything from a singular stage to multiple stages to a carnival atmosphere. Unlike most outdoor facilities, this facility is open twelve months per year. The beautiful Miami weather with an annual average temperature of 76 degrees Fahrenheit, allows for year-round operation. Miami is considered a major market area with over 2.3 million people in Miami-Dade County alone.

Is it possible to incorporate the idea of flexibility into the master plan of the site? Is it possible for pedestrians to encounter different elements and areas every time they visit the site?

Kohl & Partners led a charrette to assist the community in redeveloping a plan for the future of the park. More than 400 people participated and three plans were derived. The proposed master plan includes museums, restaurants, and public open spaces. Two major Miami museums are scheduled to relocate to the park.
Many of these spaces will be for both public and private uses. These spaces include the first two floors of gallery spaces, conference halls, lecture halls, and classrooms. The spaces must be laid out in such a manor that they are easily accessible for both users. The upper levels of the building will be for the design students. The floors must be flexible enough to some how receive the shipping containers. The student floors need to provide everything that the students will need on a day-to-day basis. Classrooms, lecture halls, classrooms, computer labs, laundry room, and kitchens will be located on each of the student levels.
- Lecture halls
- Conference rooms
- Dorms
- Studio spaces
- Offices
- Reception hall
- Computer lab
- Storage
- Laundry room
- Lobby
- Exhibit space indoor/outdoor
- Commercial space
- Gallery space
- Public/private restrooms
- Cafeteria/food
- Faculty rooms/offices
- Pin-up space
- Kitchen space
- Restrooms/showers
- Lounge area
sketches of building concepts
These sketches were taken from my design notebook. They represent the design process that I went through to get to the final design. Many of the ideas within these sketches are present in the final design while others simply faded away. These sketches illustrate concepts of the master plan, building, and even the structural details.
Concept 2: “C” shaped concrete units

The second concept was to have pre-cast C shaped units that could be connected to form different room configurations. The configuration of each unit would be determined by each student. These pod designs would be part of their studio projects for the semester before attending Tropicalia. Once the students are in Miami they will get to actually build their own pre-designed dorm/studio space. This will help the students by giving them hands on experience with how materials fasten together.

This concept dealt with the issues of multi-users within the same building. The concept was to have one side of the building be for student use while the other half would be condos for professional designers. The space in the middle would be where these different users could come together and share ideas and designs. The design would be very transparent which would allow people in the park the unique opportunity to see the infrastructure of the building. The systems of the building would be visible as well as the people occupying it.
The third concept comes from the idea of looking at macro issues such as zoning, site, context, existing conditions, and parameters in a micro scale. The building would have strategically placed concrete elements that the students will have to design with. If the students decide not to use any given element it can still help create an interesting image. This concept is looking at the building as more of a piece of art that can constantly (every other semester) change.

The fourth and final concept uses the idea of shipping containers. These containers would be inserted into a steel structure and welded into place. Each container would have different aesthetics which would represent the individuals within. With all the containers inserted into the structure the building would take on a very interesting and unique look. The building would represent a work of art that is composed of many individuals’ different identities.
schematic design
This design is a collaboration of many of the ideas from other concepts. The main concepts driving this design is the idea of shipping containers being inserted into the side of the building. The containers would be set up on a track like system that would be able to be pushed and pulled as needed. This would allow the containers to create a very unique and interesting facade. Since none of the containers would have the same identity it would help create a overall building with a unique identity. The containers would be inserted and extracted every semester which will help the building evolve and change on a regular basis. The building as well as the site needs to be dynamic so each time a person visits the site their experience is different.
Creating a dynamic site which allowed people to interact with it was my main goal. Since the site is located next to Biscayne Bay I thought it was important that users had the opportunity to interact with the water as much as possible. Water features are located throughout the site in a variety of configurations. The water from the bay is actually pulled into the site through inlets which allow the water to flood given areas during high tide.

The overall site design was created using lines that radiate from the south east corner of the site. The plan was then broken down into three areas. This created the large open gathering space directly behind the main building. The gantry crane was designed so that it could provide the building with containers from a variety of sources. The layout of the gantry crane allows it to travel over water as well as the road. This enables the cranes to receive containers from boats as well as trucks. The crane can also be used to lift big boats out of the water for maintenance.
The final master plan is a collaboration of many different concepts. The plan is designed to be very flexible and dynamic. The current site is very dilapidated and very few people go there to enjoy it. This site is one of the last sites in downtown Miami which offers such views and open green space. People should be able to walk to the park on their lunch breaks and enjoy the warm weather. The site is laid out in such a manner that each time an individual enter it they may experience different things. This is achieved by manipulating the sea wall as well as creating nodes of activity within the site. The sea wall is currently a flat wall that discourages people to interact with the water. The new and improved sea wall steps back and down in specific area to allow pedestrians to interact with the water. When the water level is high certain areas will be covered with water. When the water level in the bay is low it will allow pedestrians to venture into areas which would have otherwise been denied. People can enjoy a warm summer day in one of the many areas provided or watch a concert in an amphitheater. Like the building itself the site is very dynamic and flexible in its uses.

**Final Master Plan**

The concept of converting this park into an art park was carried though to this final plan. The yellow blocks on the site plan are buildings for the Miami Museum of Modern Art. The red blocks on the site plan are transit stations and parking garages.
first floor plan:
3 indoor art galleries
exterior gallery space
4 rest rooms
4 fire stairs
2 elevators
exterior lecture hall
second floor plan:
5 indoor art galleries
4 rest rooms
4 fire stairs
2 elevators
2 exterior gallery spaces
art preparation space/storage
third floor plan:
- 4 rest rooms
- 4 fire stairs
- 2 elevators
- 2 studio spaces
- 4 classrooms
- computer lab
- kitchen area/dinning room
- storage
- laundry room
- private study rooms
- pin-up space
fourth floor plan:
4 rest rooms
4 fire stairs
2 elevators
2 studio spaces
4 classrooms
computer lab
kitchen area/ dining room
storage
laundry room
private study rooms
pin-up space

[final design]
fifth floor plan:
- 4 rest rooms
- 4 fire stairs
- 2 elevators
- 2 studio spaces
- 4 classrooms
- computer lab
- kitchen area/dining room
- storage
- laundry room
- private study rooms
- pin-up space

architecture & identity
The main concept for the final floor plans was to keep them open as much as possible. To achieve this openness on each floor the wet core, elevators, mechanical, service areas, and kitchen areas are all located towards the center of the building. This opens up the floor space and creates spaces that the students can utilize anyway they would like. The bottom two floors are designated to public art galleries. The galleries can be used by the art students to display their work to the public. This helps break down the barrier between the students, on the inside of the building, and the public.
southeast elevation

northwest elevation

[architecture & identity]
[architecture & identity]

building section
These building sections illustrate how the containers penetrate the translucent material and connect with the building. The image on the left page shows how the vertical circulation is zoned throughout the building. The exterior circulation, on the upper floors, serves as a connection between the containers. This exterior space was created to give each student their own “front porch”. While walking down this exterior pathway one gets the sense of a community because each adjacent container represents an individuals living quarters. The main interior corridors on each level serve as a connection between the three areas of the building.
building section
One of the goals for this project was to create a building which allowed its users to easily interact with one another. These building sections illustrate how the studio spaces can interact with each other. This was achieved by stepping the studios back on the upper floors. Allowing the studio spaces to open to three floors makes each space feel much bigger than it really is. This can all be seen from the outside of the building as well. The north facing glass wall allows for adequate lighting while also allowing the public the unique opportunity to see the students working in their studios. Since the student would be spending most of their time in the studio spaces I didn’t want to make them feel confined.
The mechanical system for this building is very unique. Since the containers are constantly being inserted and extracted there must be a flexible adaptable mechanical system. On both sides of the building there are mechanical shafts which extend up to the top floor. These shafts are connected on each floor through a horizontal mechanical element. The systems extend up one side and pass through the horizontal element where they are inserted into each container. The connections from the containers are very flexible and are set up on a five foot system. The systems are then taken out of the containers and extended to the opposite side of the building where they return to the ground.
The steel structure of this building is setup on a 25’ X 12’ grid. The 12’ grid was setup to receive the containers easily. The containers measure 10’ wide which allows for 1’ of clearance on each side of the containers while being inserted. Each container has eight “hangers” attached to the top of their structure. Each hanger has two rubber wheels that roll on the suspended structural track. The containers lock into place using a push pin system which gets pushed through the structural track on each side.

This image illustrates the “hangers” which are attached to the top of each container.
exterior perspective

[architecture & identity]
exterior perspective
These images illustrate how the building's façade can also be utilized in different ways. People can be drawn to the site during night hours through events like movies. The movie or game can be projected on the side of the building using a projector. People can sit in the open green space and enjoy the activities on the wall.
exterior perspective from bay
The first and second floors are public art galleries. These galleries are very open spaces which allow for a variety of art to be displayed. Each studio contains shipping containers which move on rollers. The shipping containers help create a studio within a studio feel. Each floor can be divided into separate galleries to allow for more than one artist to display their work at the same time. By providing both interior and exterior galleries allows for a variety of art to be displayed, not just paintings.
This thesis project was very challenging from the first day I started it last semester. The topic of architecture and identity could be looked at from a variety of view points. I chose to take on the issue of architecture representing its individual inhabitants. After lots of research and continuous refinement I decided to utilize shipping containers in my design. These containers would provide shelter that is self contained and resistant to the natural elements, not to mention structurally sound.

I believe this is one of the most successful projects that I have worked on, but, like all projects, certain areas of it could have used more attention and refinement. Since the project was so massive I a few areas didn’t get as much attention as they needed. One specific area would be the overall master plan. Although the plan is complete and functions well with the surroundings, I feel that the layout of the museums needed more thought. I realize that the museums really don’t have much to do with my building but having a better master plan would have helped.

Initially, my design goals were much too expansive to be completed in one single semester. My initial goal was to design a building which would function as an art studio of students as well as a condominium for professionals. As the design progressed and evolved the building program also got refined and I decided that the condos didn’t fit with the rest of the building. I feel that a smaller sit would have allowed me to spend more time on smaller details. The massive site I chose was very difficult to layout and plan. A large portion of my time was spent figuring out infrastructure issues that could have been avoided with a smaller site. I feel I have learned a lot from trying to take on such a huge project, but that the spaces and final design could have been more detailed in a smaller overall project. I could have explored the same thesis topic but in a different way.
[books]


[i nt e r n e t s o u r c e s]
http://thedwellhouse.com
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