ARCHITECTURE PORTFOLIO

A GRAPHIC NOVEL

JAMES W. MARSH
Special Thank You To;

David Carls, William Dean, Rex Simpson, Jeff Johnston, Joy Carlson – They taught me everything I know.

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Devin Carlson, Kyle Edmister, Tony Vischansky, Sean McKenzie – for their help on the cardboard boat project.

I could fill this whole page, but the rest of you know who you are, and I will personally thank you.
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FRESHMAN YEAR FOCUSED ON GRAPHIC COMMUNICATION AND THE DEVELOPMENT OF CREATIVITY. PROJECTS USED MULTIMEDIA RANGING FROM GRAPHITE TO WIRE TO FOAM TO STICKS AND STONES. THE START OF AN ARCHITECTURAL VOCABULARY WAS BUILT FROM PROJECTS THAT EXEMPLIFIED TERMS AND DEFINITIONS. IT WAS A REALLY IMPORTANT YEAR TO TRANSITION FROM A HIGH SCHOOL MENTALITY INTO A MORE PROFESSIONAL LEVEL OF WORK ETHIC WHILE ALSO LAYING DOWN THE FOUNDATION OF ARCHITECTURAL DESIGN: GRAPHICS AND COMMUNICATION.

DRAFTING: THE SYSTEMATIC REPRESENTATION AND DIMENSIONAL SPECIFICATION OF MECHANICAL AND ARCHITECTURAL STRUCTURES.

LINENWEIGHT: THE RELATIVE STRENGTH, HEAVINESS, OR DARKNESS OF THE LINE AGAINST THE BACKGROUND OR SUPPORT.

HAND EXTENSION

OBSERVING: THE ACT OF NOTING AND RECORDING SOMETHING WITH INSTRUMENTS.
MODULAR: Designed with standardized units or dimensions, as for easy assembly and repair or flexible arrangement and use.

STUDY SPACE

SECTION: Projection in which the horizontal plane that cuts through an object is parallel to the plane of projection or drawing surface.

STICKS & STONES

PLAN OBLIQUE: Projection in which the horizontal plane is parallel to the plane of projection or drawing surface.
DESIGN FUNDAMENTALS

SHADE & SHADOW

FLOOR PLAN

POCHE: Filled-in regions of an architectural section that indicate the cross-sections of walls, columns, and other solids.

SECTIONS

SITE PLAN

CHAPEL

EXTERIOR

RENDERING: A perspective drawing showing an architect’s idea of a finished building, interior, etc.
Axonometric: Projection in which a three-dimensional object is represented by a drawing having all axes drawn to exact scale.
The Visiting Artist Center utilizes a modern design approach to architecture in downtown Alfred, NY. Given the community's artistic background, we created a sculptural exterior skeleton to make the building stand apart and have more importance over the surrounding buildings. The freeform of the art center promotes the infinite stretching of the limits of art and the creation and display of creative pieces.
CONSTRUCTION DRAWINGS

The visiting artist center project had a requirement that a partial set of construction drawings be produced illustrating the final design. At an early point in my education (sophomore year) I realized that the things I design have to be realistic and buildable. I now have a good understanding of what actually goes into finishing and constructing a structure. I think this is important because, in my opinion, no one should care if they can produce nice architectural renderings if there is no realistic basis for a material architectural outcome. This set of drawings exemplifies that I understand landscaping, dimensions, structural column grid design, building section, foundation design, and wall construction; all important aspects of architecture to study and prove knowledgeable of.
“Collide” is a self-supporting, energy-efficient, and completely solar-powered residence. Not only is it “Green” in every aspect, but it’s a marketable and aesthetically pleasing home. As the name implies, the structure is essentially a collision of masses. Its horizontal movement is not only expressed on the exterior but reinforced on the interior as individual masses become a whole. Southern exposure provides maximum sustainability through passive solar gain, and multiple axes of ventilation provide natural cooling. “Collide” is a bold statement of modern sustainability as well as a strong assertion of architecture.
My design for the Glenn Curtiss Museum was inspired by what will be displayed inside of it: airplanes. The structure is removed from inside the walls—becoming reminiscent of the visibility of the structure of a Glenn Curtiss airplane or motorcycle. The site has a large, open courtyard for outside display as well as three distinct viewing locations that pay respect to the beauty of Keuka Lake. The museum is both a memorial to Glenn Curtiss and a modern take on some of the same ideas that he researched during his remarkable lifetime.
Aesthetic appeal, functionality, and affordability: these are the design characteristics that molded my historic addition. By being sensitive to the original form, rhythm, and proportions but rehashing the traditional detailing and materials, my 1300 sf addition relates to the existing building in a way that both structures have an opportunity to showcase their best qualities. The new generation's design pays homage to the elders but invites sustainability through natural lighting and the recycling of used building materials.

After much thought, I've found the answer...

...or not. Back to the drawing board...

3 Main Designs

Solution
CONCEPT DIAGRAMS

- A privacy gradient was used to organize spaces and their functions in a logical manner.
- A mobile partition acts as the primary space-maker allowing for flexibility of use.
- Aspects of the existing building were measured and modified onto the addition in order to relate the two masses to each other.

OFFICE AREA

SECTION

ENTRANCE

COMMERCIAL

RESIDENTIAL
CARDBOARD BOAT CHALLENGE

This design is essentially a pontoon boat, but instead of enclosed pontoons, each vessel is a separate boat, large enough for one person each. The boat's main source of propulsion is from a paddlewheel fixed between the two boats, which is cranked by a person on either end. Handheld paddles would only serve the purpose of steering the boat, as the wheel would provide all necessary force for movement. The boat and its main components are created using many layers of cardboard spaced evenly and perpendicular along a surface which is then faced by more cardboard. Sturdy cardboard tubes join the two boats at the bow and stern.

TEAM MEMBERS

Kyle Edmister
Devin Carlson
Sean McKenzie
Jim Marsh
Tony Vischansky

CARDBOARD vs. WATER

PLAN

Bow
Port
Stern
Basing the main wheel axle off of the shape of a triangle, we were able to build upon its rigid structure to provide a connection between the boats to allow the wheel to rotate while remaining strong. The use of the triangular axle allows for the most efficient shape which structurally supports the paddlewheel successfully. We then spaced the triangles to mimic a truss system that allows for the load of the wheel to be displaced evenly. For the wheel we initially started with a six pointed triangular star, which progressed into a more proficient shape. The blade-like fins allow for more surface area contacting the water with the use of less cardboard. Also, we alternated and stacked the pieces to make the paddlewheel a fully functional and structurally sound element.
BUFFALO ARCHITECTURE CENTER

The design of the Buffalo Architecture Center is a showcase of the historic Richardson Asylum as well as the historic structures displayed inside. The building functions as a gallery of the architecture of Buffalo and an access to the new hotel lobby within building 45. The addition replaces the 1920s addition that was located directly behind the central tower building. A main walkway spine gently slopes up to the new lobby. The second floor protrudes out past the first, and in that space is a connection point for the two existing pedestrian tunnels and the new spine.

The building is composed of three stacked geometric masses. The first floor is curved and is tied to the ground through the use of solid earth-tone materials and minimal transparency. The second floor also reflects the curvature of the adjacent connections between buildings but contrasts by being almost completely transparent. This invites visitors to enter and explore the space of the main level. The third floor is essentially a cube with rounded corners that merges the curved lower levels and the rectilinear tower building. It compliments the existing building by abstracting the stonework through the use of colored glazing and metal panels.
THE SURROUNDING SITE IS LEFT AS A LARGE, OPEN, GREEN SPACE WHERE THE COMMUNITY CAN MAKE USE OF AN AREA THAT USED TO BE A PAVED PARKING LOT.
The adjacency to the existing building allows for the new structure to make use of existing materials while also preserving and displaying them. As one enters the lobby, he/she can observe the ease of connection to Building 45 and the use of existing exterior walls as new interior walls. This reduces the amount of materials that will need to be brought in to construct the new structure. The new materials respect the historic context through color and pattern derived from existing conditions.

The new building is an opportunity to educate the people of Buffalo about their rich architectural history and restore pride within the city. This could lead to dynamic change in the importance of historic preservation and the development of green space within the city of Buffalo.

Due to the site location directly behind the massive Richardson building, the wall on the roof is designed to reflect light into the building and, through an offset series of openings, to maximize daylighting.

The railing along the roof is designed to be integrated with the front facade and it also hides the roof wall that is reflecting light through the building.
The senior urban design studio at Alfred State was assigned the task of proposing a master plan for Bath, NY. Connectivity and the revival of the business district are key factors in making Bath a pleasant town to live in, work in, and visit. This will be accomplished by improving vehicle, bicycle, and pedestrian circulation and creating cohesion in the village through design, signage, and lighting. The identity and image of Bath will further be established by enhancing the gateways into the community. All of these aspects combine to create a desirable and family friendly place to be which will in turn draw more business to the area.

A design charrette was held in Bath to work with the residents of the town towards their ideal vision for the village.
The business district focused on how the downtown area of Bath could become an attraction to other people through the storefronts on Main Street and increase local commerce.

A bike path through the town became a focal point that would link all the districts together and push Bath towards sustainable transportation.

The idea of an art community is reflected in a proposed community space called the Art Park. It takes advantage of a Main Street grant that will be used to remodel apartments along Main Street on upper floors.

Overall, redesigning sidewalks, atmospheres, and improving facades throughout Main Street will give Bath a more desirable appearance and re-ignite business in the area.
The Rochester Tennis Facility is located on the corner of Main Street and Plymouth Street in Rochester, New York. It will be the site of four regulation sized tennis courts, one 10-and-under sized court, and two 8-and-under sized courts. The form of the building is designed around the experience of the spectator. A central circulation tower rises out of the ground, and two adjacent masses house the athletic performance areas to either side of the spine. Viewers have a variety of perspectives to choose from: the spine, the indoor track, the weight training area, the aerobic area, the pro shop, and even the rooftop. It is appropriate that the main two columns of the building are designed around the handle of a tennis racket, which functions as a shock absorber. The secondary column grid follows the walls vertically and pierces through the roof to become the structure that holds up a net to contain the two rooftop tennis courts. The existing buildings around the site become a historic backdrop for what might be considered an unconventional location for a tennis game. Being that the site is located on both a city bike path and bus route, the Rochester Tennis Facility could spark an interest in both playing and watching tennis in the city of Rochester.
ROCHESTER TENNIS FACILITY

ROOFTOP COURTS

TRACK OVERLOOK
I HAVE CONSIDERED MYSELF AN ARTIST SINCE HIGH SCHOOL. I EXCELLED IN ART CLASSES AND WON A NUMBER OF AWARDS. AFTER HIGH SCHOOL I CONTINUED TO DRAW, BUT I ALSO GOT INTO GRAPHIC DESIGN AND LATER VIDEO. I THINK IT'S IMPORTANT TO EXPLORE VARIOUS METHODS OF EXPRESSION AND CREATIVITY BECAUSE YOU NEVER KNOW WHERE INSPIRATION AND EXPERIMENTATION CAN OVERLAP INTO OTHER FIELDS. ART AND A SENSE OF DESIGN ARE TALENTS THAT ARE DEVELOPED AND IMPROVED OVER TIME.
A FRIEND OF MINE HAS AN ASPIRATION TO START A CRAFT BREWERY. IF HIS BUSINESS EVER TAKES OFF, I WILL PROBABLY BE HIS MARKETING MAN. THESE ARE LABELS I DESIGNED FOR HIS BOTTLES.

TWICE I WAS ASKED TO SUBMIT THE COVER PHOTO FOR “ERGO,” ALFRED STATE’S SEMESTERLY STUDENT-SUBMITTED CREATIVE PUBLICATION. THE SECOND COVER WAS TAKEN IN ANGELICA, NEW YORK AT WHAT USED TO BE THE COUNTY HOMES. THE BUILDING HAD A FIRE DECADES AGO, BUT THE SURVIVING STRUCTURE HAS A SENSE OF BEAUTY. IN ABANDONMENT, THE SET OF PHOTOS ALSO HAS AN ACCOMPANYING VIDEO AT HTTPS://VIMEO.COM/4B967914

IN 2009 I WAS ASKED TO REDESIGN MY HIGH SCHOOL’S LOGO.

IN 2012 I STARTED A SMALL BUSINESS WITH A PARTNER, AND WE FINISHED A PROJECT FOR A LOCAL HARDWARE STORE THAT INVOLVED REBRANDING THE COMPANY. WE SUCCESSFULLY SHOT A COMMERCIAL, AND IT WAS PUT ON TELEVISION AROUND THE AREA.

VIEW THE FULL COMMERCIAL AT HTTPS://VIMEO.COM/4B967804
I am passionate about photography. I have mostly taught myself everything I know from various sources and just experimentation. I think my photography showcases some of my important traits such as motivation to create, willingness to learn through experience, and constant consciousness of visual composition. I like panoramic photography because one can compose the photo through precise tripod movement and purposefully warp reality.
AUGUST 2011 - CAPE MAY, NJ - I was a wedding photographer for a family friend. They didn’t expect much, but were pleasantly surprised with the results. It was an awesome in-the-field and public relations type of experience for me.
"AS A WELL SPENT DAY BRINGS HAPPY SLEEP, So A LIFE WELL SPENT BRINGS HAPPY DEATH."

-LEONARDO DA VINCI