

MY LIFE AS AN ARCHITECT

Six Weeks at Cornell

by Aaron Collier

I WAS ON A CROSS-COUNTRY TRIP WITH MY FAMILY, and we were driving into the Rocky Mountains when I saw it: a house built into the side of a mountain. Actually, it was more than a house. It was a majestic three-story mansion with a beautiful terrace overlooking the mountain. “Whoa!” was all I could say as we drove by. I was nine years old, and I knew right then that I wanted to create structures that would have the same effect on people as that house had on me.

I had actually been interested in architecture since I was about six years old, when I saw an episode of *Tom & Jerry* in which Tom draws blueprints for a mousetrap. I loved the idea of drawing blueprints and seeing something get built from them. I played with Legos a lot when I was young, too, making my own buildings before moving on to Lego Architecture kits. I remember carefully piecing the White House together and standing back to marvel at what I thought was one of the greatest architectural achievements in history.

Surveying the Field

As I grew older I continued to pursue this interest, reading books and researching famous architects ranging from James Hoban,

the architect who designed the White House, to Bjarke Ingels, my favorite contemporary architect. I watched lectures online of architects explaining what architecture was to them so that I might understand what architecture was to me.

In high school, I started researching summer programs that could give me a hands-on experience with architecture. The summer after 10th grade, I attended ArcStart, the three-week summer architecture program at the University of Michigan. I chose this program primarily because Michigan’s Taubman College of Architecture has some of the best architectural technology in the country, and I wanted to see it in action.

The 3D modeling technology I saw there was incredible. In the Digital Fabrication Lab were several 3D printers—and this was

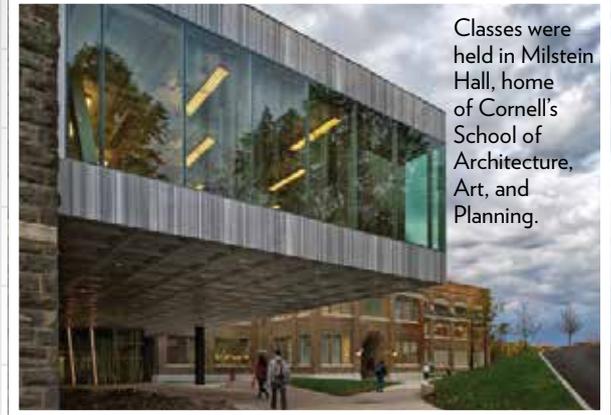
before they were so widely available. There were laser cutters for rapid production of models of chipboard or acrylic. There was also a machine that could cut stone or metal, and a robotic arm that allowed students to build models not from the usual chipboard you typically see in architectural design models, but from sheets of iron or steel. In lectures, the program director and TAs gave us an overview of architectural concepts such as personal space and public space, as well as a survey of architectural history. We were exposed to the work of a wide range of architects, from Le Corbusier to Frank Lloyd Wright. The three weeks passed too quickly.

Three Little Words

The next year, seeking a more intensive and in-depth experience, I applied to the six-week Introduction to Architecture program at Cornell, the oldest architecture summer program in the country. I knew that there I would learn what it would take to balance studies and a social life—in other words, what it would take to be a successful architecture student.

I arrived in Ithaca one warm July morning, ecstatic and eager to get started. Within two hours of landing, I had already met another “archy” (what architecture students are called). I also met my three professors: Cornell professors Henry Richardson and Jim Williamson, and Luben Dimcheff, a professor at Parsons School of Design.

Because I'd done so much independent study and participated in a summer program the year before, I was confident I'd do well in the program. But the very next morning, I was introduced to the Latin terms *firmitas*, *utilitas*, and *venustas*. The great Roman architect Vitruvius asserted that a structure



Classes were held in Milstein Hall, home of Cornell's School of Architecture, Art, and Planning.

must embody the three values of strength, utility, and beauty. I had never thought of those as qualities of architecture. Until that moment, I had thought of architecture simply as building cool buildings. I suddenly realized I had a lot to learn.

Under the Big Umbrella

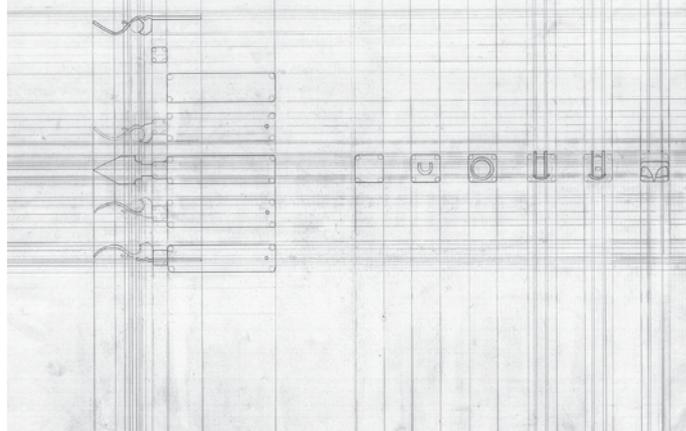
Every weekday after breakfast, I would join about 80 fellow architecture students for a three-hour lecture beginning at 9:00 a.m. Lectures were given by either Professor Richardson or a guest speaker and covered everything from architectural history to energy conservation. My favorite lecture was about urban planning and how buildings such as the Guggenheim in Bilbao not only were amazing to look at, but had an impact on the function of the city around them. I also enjoyed a lecture about photography and realized how important it is to take good pictures of my work. I've been interested in photography ever since.

At noon, either blown away or somewhat confused and challenged by the material, we headed to lunch to regain our strength for the next challenge: studio. We convened in the same studio used by architecture students during the school year—a huge space inhabited by a large number of drafting tables, on which students would draw, sketch, research, make models, and sometimes, after a long night, nearly fall asleep.

During studio, Professor Williamson (who we called Jim) would assign us a prompt, which was nothing like standard art class prompts where you might be given an assignment to paint something related to an event or theme. These prompts were always challenging and forced us to think differently. One of my favorites was the “ordinary tool” prompt. For this project, our teaching assistant gave us each a different tool, and we had to document the details of this tool by drawing it.

Someone got an axe; my friend got a weird pizza cutter. My tool was a simple can opener, and within little time I finished my drawing of it. But then came the hard part: an architectural drawing illustrating how the tool can be used. I studied the way

In studio, students learned that architecture is about more than buildings. For one assignment, students drew architectural diagrams of ordinary tools.



it moved. I moved it against different cans and studied the angles. It was a simple machine, but I realized how complex it was to convey its use in two-dimensional drawings.

We spent three weeks on that “ordinary tool” prompt. In other assignments, we were asked to embody a word, such as “fragmentation,” through model-making. We designed only one building, and that was at the end of the program. One of the most important lessons I took from studio is that architecture is not just buildings. Architecture is street corners and bus

stops, memorials and sculptures. It is office spaces and pavilions and landscapes. Architecture is a big umbrella, and in studio, we learned some of the fundamentals we might someday apply to larger projects.

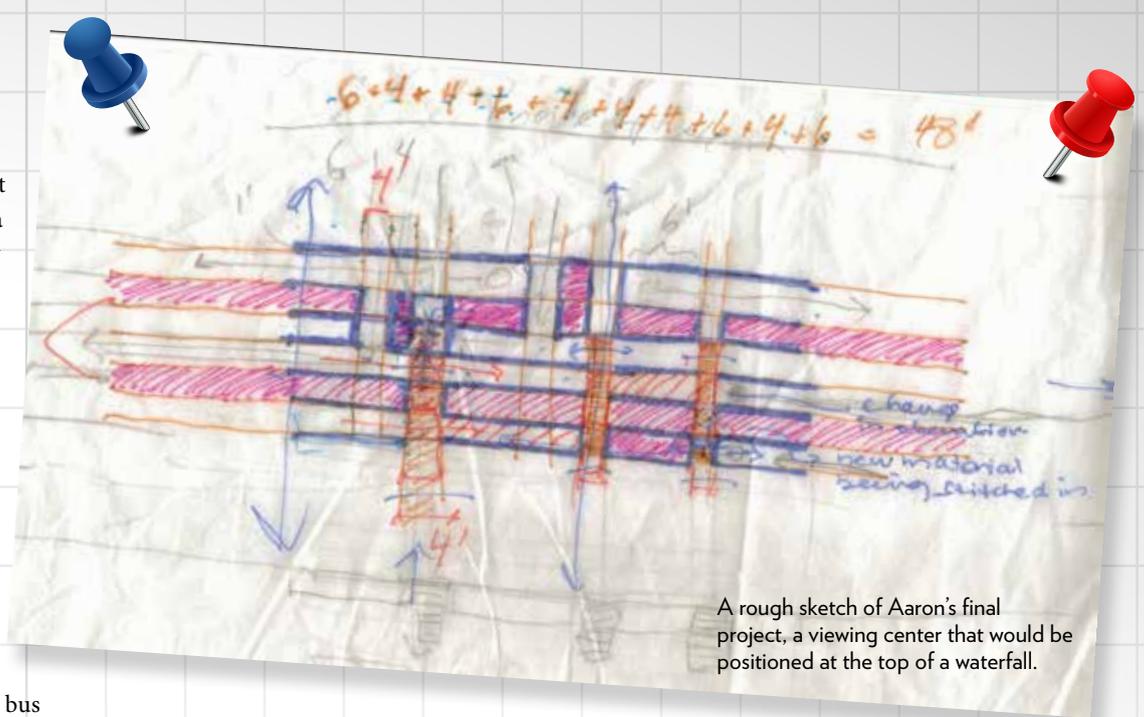
Open to Suggestions

The results of our work in studio then had to be presented in the dreaded “pin-up,” when we would literally pin up our work on the walls and then present it for critique from our instructors and TAs, who were graduate-level architecture students. Pin-ups would be done at least weekly and would include everything related to the project we were working on that week.

The pin-up is at the heart of all architecture schools, and it was this experience that taught me the most about architecture. Every critic was tough, often giving both negative and positive feedback, but the professors were as tough as nails. They treated us as if we were actual first-years in the architecture program, telling us exactly what they thought of our projects and how we could potentially improve them. Some might say it was harsh, but no one could say it wasn't helpful.

It can be frustrating to spend hours and hours on a project and then be told that it still needs a lot of work. I learned quickly not to think of criticism as failure. We usually got feedback while a work was still in progress, though, so if a critic wasn't satisfied with some aspect of the work, there would be time to improve it. Instead of finding the process defeating, I chose to think of it as empowering. It motivated me to see things differently and continue to improve, although it was always my goal to receive more positive feedback than negative.

During my last review, I presented a drawing and model that represented about 20 hours of work. It was for a viewing center that would be positioned at the top of a waterfall. When it was my turn to present I stepped in front of the group and described



A rough sketch of Aaron's final project, a viewing center that would be positioned at the top of a waterfall.

my project, using my drawings and models to further explain my ideas. The feedback was mostly positive, but there were also many questions: How would people get there? Would you have to cut down trees? Would there be accommodations for cars? Did you consider other positions for the viewing center? These were all good questions and reminded me again that architecture is about more than buildings.

A Plan for the Future

The summer program at Cornell provided the challenge I'd hoped for—and then some. For example, I sometimes received assignments from all three of my professors on the same day. A model might be due on a day when we also had a test. The professors had high expectations, and we had to meet them by managing our time responsibly, without making excuses. In the end, I learned as much about being an architecture student as I did about architecture itself.

Those six weeks at Cornell were some of the most enjoyable of my life, and I left the program more passionate about architecture than ever before. In the fall, I'll begin the five-year undergraduate architecture program at the University of Notre Dame. All students in that program spend a year studying in Rome, where I suspect I'll continue to contemplate the values of *firmitas*, *utilitas*, and *venustas*. **i**



Aaron Collier is a high school senior from Orlando, FL. After obtaining his Bachelor of Architecture degree, he plans to obtain a Ph.D. in architecture and then to positively affect people's lives through his work as an architect.

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