The Library Project: Stuart-Hobson Middle School

CATHOLIC UNIVERSITY OF AMERICA DESIGN COLLABORATIVE (CUADC)
The Catholic University of America

CUAdc's Mission

The mission of The CUA design collaborative is to train effective architects with a strong social commitment by guiding architecture students through actual design projects. The design collaborative provides opportunities for students to learn outside of the classroom, thereby fostering a lifelong commitment to continuing education, and allows them to gain hands-on experience through work on actual projects with community clients.

CUAdc provides architectural services to those nonprofit and community groups in the District of Columbia with the ultimate goal of repairing and improving the city, its neighborhoods and its buildings.

The CUAdc Model

CUAdc design teams consist of architecture faculty, staff and students. All teams are directed and supervised by a faculty member with a professional license to practice architecture in the District of Columbia. When appropriate, additional faculty within the school, alumni and scholars in other CUA departments serve as members of design teams.

Participating faculty members direct and work side-by-side with architecture students. To be eligible, an undergraduate student must have completed three years of their B.S. in Architecture program. All graduate students enrolled in the M.Arch. 2 are eligible to participate. Students enrolled in the M.Arch. 3 program are eligible after completing their first year.

Students meeting the eligibility requirements are invited to submit applications for CUAdc. Applications consist of a letter of interest, resume and portfolio. A short list of applicants are interviewed by the participating faculty members and selected based on their academic and design ability, as well as their commitment to the mission and requirements of CUAdc, professionalism and ability to work within the team structure. All students who participate receive 3 credits (Independent Study) toward their degree requirements. Enrollment in the Intern Development Program (IDP) is required for participation in CUAdc. The number of students retained per semester vary based upon the number of projects underway.

THE SCHOOL LIBRARIES PROJECT

The school library should be the heart and soul of any school building. The School Libraries Project is a community effort to transform eight elementary school libraries in the Capitol Hill neighborhood. The goal is to reinvent the libraries as exciting community spaces that will inspire children to learn and explore.

Capitol Hill boasts an enviable number of neighborhood elementary schools… schools within walking distance of each family's home.

At this point, however, local families are met with an increasing array of options for their children: private and parochial schools, charter schools and competing public schools in more affluent city wards. The neighborhood public schools are competing for dwindling financial resources and the limited energy of parents and community members. Without investment from the community, our public schools will be "schools of last resort," places where only those families without options send their children.

In the spring of 2005, a coalition of concerned parents approached the Capitol Hill Community Foundation in regards to the substandard conditions of public school libraries within the Capitol Hill School District. This group joined forces with the Washington Architectural Foundation and the School Libraries Project was born. Eight libraries [seven elementary schools and one middle school] were targeted for immediate upgrades. Seven architectural firms and a group of college students and professors from The Catholic University of America were selected to work with the eight initial libraries to create design proposal.

The libraries were identified as a common concern at ALL the schools. Some of the libraries were closed because they had no librarian, others had not had their book collections updated since the 1970s, they all lacked modern technologies and they all could benefit from a creative redesign. Most importantly, it was felt that reinvigorated libraries could serve as a catalyst for reform; inspirations for new curricula, meeting spaces for the community, symbols to children and families that these schools are places where learning is valued.

The timing for the initiative was propitious. The 2005 federal payment to the District of Columbia included $6 million to be used in 110 public elementary schools for library resources such as books, periodicals, computers and software. The DC Department of Public School matched the funds. These funds were used for facility upgrades. In passing this appropriation, Congress also hoped to encourage private investment in the public school libraries.

The Catholic University of America design collaborative was paired with Stuart-Hobson Middle School at 410 E Street NE, Washington, DC. The pre-construction library was under-stocked, technologically out of date and was open to students for an average of one hour per day. The long, narrow space held metal book shelves that were inappropriately sized, being too tall for the average student. A handful of donated computers were in the space, but were not connected to the library resources and the internet. The design goal was simple: transform the library into a dynamic space that would inspire students to learn and explore.

During the Fall semester in the 2005-2006 academic year, the first group of CUAdc students conducted schematic design. The CUAdc design team began to consider a desert inspired atmosphere into this inner city school, seeking to inspire students through an exciting, enriching environment. The natural rock formations of the southwestern United States were carefully studied and transformed in order to engage them into this urban condition. Long, concrete block walls were envisioned to become amorphic formations of shelves with books and displays. Computer terminals were designed to have similar forms, but work specifically with middle school children. Extensive studies were conducted to allow the librarian and teachers to work in and monitor the space while maintaining a cohesive design strategy.

During the Spring semester, a second group of CUAdc students were responsible for the permit drawings and construction documents. Working closely with consultants, the team developed the initial schematic design into an economically feasible proposal. All fabrication models and documentation were completed during this term.

From the outset, the CUAdc team designed with the mindset of utilizing new technologies within the university to fabricate the shelving and furniture. During the summer term, a large group of students volunteered time to fabricate all the custom millwork using a three-axis CNC [Computer Numerically Controlled]

milling machine. Approximately 800 sheets of pre-finished maple plywood were carefully cut to minimize waste. By engaging the fabrication, students were able to control cost and deliver the millwork on time.

Through a close collaboration with the Stuart Hobson Middle School faculty and students, the Washington Architectural Foundation and the Capitol Hill community, not only did the completed library provide inspiration for its many users, but the process of the library's design and fabrication educated and enlightened the CUAdc students as well. By feeding on the insight from a wide variety of sources, a successful design and installation evolved, ultimately enriching the space and the student body as a whole.

The Stuart-Hobson Middle School: Project Facts

Address: 410 E Street, NE, Washington, DC

Program: 7000 linear feet of book shelving, Fiction, Non-Fiction, Reference, Computer Lab, Café, Lounge Seating, Librarian Circulation desk, Librarian Workroom, Network Server Room

Square Feet: 3245 sf (124'-0" l x 24'-0" w x 12'-0 h)

Site Characteristics: The Library is approximately the size of three classrooms and is in the basement of the building with natural light along the west wall. The Library has been in decline for years and has inadequate infrastructure for a middle school library.

Architects/Designers: The Catholic University of America, Design Collaborative (CUAdc)

Contractor: The Dietze Construction Group

Engineer: Global Engineering Solutions, Inc.

Millwork/Fabrication: The Catholic University of America design collaborative (CUAdc)

Figure 1 Existing Conditions

Figure 2 Schematic Design Rendering

Figure 3 View of Library Reading Area

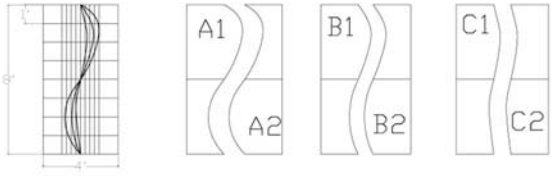

Figure 4 Fabrication Diagram

Figure 5 View of Reference Area

Figure 6 Detail View of “Clouds”

Figure 7 Detail View of “Clouds”

Figure 8 Involved Students

Figure 9 Panoramic View of Library Space