

Tarkeeb Assembly Lab: (Im)Precision in Digital and Analog Fabrication

Bill Sarnecky

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This design/build project proposes the integration of a table, seating, and display area at the side entryway of the College of Architecture, Art and Design at the American University of Sharjah. Architecture students in 5th Year began designing and building the project during the fall semester of 2012. The proposed project combines a family of functions into a hybrid structure redefining the side entry to the College and provides a much needed exterior study and gathering place for students and faculty.

A long table defines a communal seating and gathering area. The table provides a space where students might gather, work, or a place to simply sit and enjoy morning coffee. Just inside the College and adjacent to the main gallery, a display case and wall provide lit and secure exhibition of objects. At the entry to the building, a glass vitrine connects and provides a transitional element between the interior display wall and the exterior study table—both physically and formally. Ultimately, the design links interior space and function with the exterior grounds of the College, extending an open hand of invitation to the University community.

The Tarkeeb design/build studio is proposing a master plan for a display procession through the premises of the College of Architecture, Art and Design, as well as a strategy for coherently displaying physical and digital work throughout the college. A series of nodes within the procession would function as exhibition displays and gathering places both for visitors and the daily life of the college. One node within the master plan was selected for design and fabrication. At the intersection of theory and practice, this design/build intervention will serve as a physical manifestation of what we do in the college, while enhancing the daily experience of the students and visitors of the College of Architecture, Art and Design.

During the initial master planning and schematic design phases, students interviewed all the various stakeholders in the College including staff, students, administrators and professors. The students engaged in research, testing and materials exploration throughout the design development and fabrication phases.

The project is currently under construction. The backup support cabinets have all been fabricated and installed. Students began routing the wall panels and shelves during the spring semester of 2013 and continued in to the summer. Installation of the panels began over the summer and has continued in to the fall semester of 2013. The project should be completed by the end of this semester.

Throughout the design and construction process, students have confronted the limits of precision in digital and analog fabrication. Shelves and panels that align cleanly in the digital model developed a life of their own when rendered in wood rather than pixels. The inherent flexibility provided by the design/build delivery method has provided students with the opportunity to adjust expectations and reconsider details in response to these real-world constraints.



(I)M)PRECISION IN DIGITAL AND ANALOG FABRICATION

tarkeeb
assembly lab

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STUDIO INSTRUCTOR WILLIAM G. SARNECKY Assistant Professor

Poster designed by:
Aree Barakat /
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ANALOG FABRICATION

- // Students construct sub-frames for the cabinets.
- // Support framing and cabinet back-up wall installed.
- // Delivery of rough sawn lumber ready for planing and jointing.
- // Stock for panels glued up and ready for routing after being planed and jointed.

DIGITAL FABRICATION

- // Left to right
- // Wood panel being milled on the CNC router.
- // Test prototype for attachment of shelf to wood panel.
- // Detail of wood panel being routed, roughing pass showing in the foreground.
- // Shelf being milled on the CNC router.

PROTOTYPE

- // Left to right
- // Prototype shelf-to-wall connection after milling, sanding, staining and clear coat.
- // Detail views of shelf prototype.

WALL INSTALLATION

- // Left to right
- // Test fitting of wall panels and benches.
- // Reinstallation after staining and sanding wall panels.
- // Installation of wall panels continues on the display case side of the project.
- // Construction continues.

