



KB
Resume + Portfolio



Kenneth Black, Ph.D.
908 Buchanan Drive
Blacksburg, Virginia 24060

Education

Virginia Tech, Ph.D. in Architecture and Design Research	2017
Virginia Tech, Masters of Science in Architecture	2014
Virginia Tech, Preparing the Future Professoriate Certificate	2014
Virginia Tech, Bachelor of Architecture	2013

Licensure, Training and Certifications

Virginia Licensure: all Examinations passed; to obtain within 12 months	expected 11/2020
Project site training as required by VT facilities	

Honors and Recognition

Diversity Ally	2019
Design Research Award (Top Masters Student)	2015
Citizen Engagement Award	2015
Member, Associate Member, Fellow, Academy for Graduate Teaching Excellence	2014, 2015, 2017
Gould Turner P.C. Award, Shriver & Holland Associates Award (Design merit)	2011-2012
Chesapeake Bay Foundation Proposal Competition, Finalist	2011
Virginia Educational Facility Planners Competition Concept Mention	2011
Sustainable Blacksburg Pallet Reuse, 1st Place	2010
Alumni Presidential Honors Virginia Tech, Class of 1954 semi-finalist (6 awards)	2008-2013

Affiliations and Community Engagement (selected)

Look Before You Leap Job Shadow Mentor	2019
Virginia Tech Sustainability Intern Program (Energy Group)	2018-Present
Member, Society of Building Science Educators	2014-Present
Community Design Assistance Center Designer	2012-2013
Sustainable Blacksburg	2010, 2017-2018
Boy Scouts of America (Eagle Scout 2003)	2001-2017

Experience (Professional and Academic)

Virginia Tech: Architectural Planner, Blacksburg, Virginia	2017-present
Led review and coordination of Minor Modifications and Minor-capital projects for OUP <i>Examples: Burruss Alcoves, Rec Sports: Venture Out, Welcome Pavilion</i>	
Assisted with Major Capital project review (approx. 24 reviews) and state approval process <i>Examples: Creativity and Innovation District LLC, Student Athlete Performance Center, Holden Hall</i> <i>Examples: Submittals to Art & Architectural Review Board, Board of Visitors, Dept. of Historic Resources</i>	
Assisted OUP with development, review, and approval of campus standards, planning, and feasibility studies <i>Examples: Collegiate Gothic and Universal Design Studies, Hokie Stone Standard review</i>	
Assisted with the implementation of planning components of capital projects via drawing and site reviews <i>Examples: Hokie Stone mockups, sample review, bike parking & screening master plan, building walk-throughs</i>	
Assisted with the development and review of Capital project programming <i>Examples: Livestock and Poultry Research Facilities II, Randolph Hall, Femoyer Hall Replacement</i>	
Assisted with the development of campus design and planning standards and studies and implementation <i>Examples: Screening and Gabion walls, Bike Parking, Electric Vehicle and Crosswalk Master Plans</i>	
Assisted in campus development and planning of accessibility: <i>Restrooms and ADA improvement projects</i>	
Assisted in Historic preservation planning, strategies, and task implementation <i>Examples: Project Demolitions, Holden Hall HABS-level survey, Smithfield Annual Stewardship reports</i> <i>Miller's cabin restoration review, MOU with DHR for Historically Listed building maintenance</i>	

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Virginia Tech: Graduate Teaching/Research Assistant, Blacksburg, Virginia 2013-2017
Taught nine undergraduate and graduate courses: Environmental Design Research, sustainable roofing
Studio Collective, Editor in Chief of Student Magazine, 50+ staff
Strategic Planning: Redevelopment of a prototype Master's of Science Program in Architecture

Oak Ridge National Laboratory: Research Assistant, Oak Ridge, Tennessee 2013
WUFI Program and Hygrothermal Analysis of building envelope systems and green roof validation
Climatic Data Collection and Reduction for Minneapolis, MN for model validation
Environmental Studies of Building Envelopes (San Marcos, CA + Charleston, SC)
Conducted Material Standards Testing ASTM C1371 Metal Emissivity Coefficients
White Paper research: Temperature Correction for resistance in wood for moisture content

Community Design Assistance Center: Architectural Designer, Blacksburg, Virginia 2012-2013
Conceptual Design of St. Paul, VA Gateway Visitor Center
St. Paul is classified as one of the "Forgotten Towns" in Virginia and is recovering via Eco-tourism
Design presentation graphics, content, of the final report to the community

Trinity Works: Environmental Research Contractor, Mount Hope, West Virginia 2010
The Summit Bechtel Reserve, Boy Scouts of America
Worked as an Environmental Field Contractor through Trinity Works, LLC
Reviewed designs for selected pedestrian bridge competition proposals
Participated in project representation to donors and site tours

RRMM Architects: Academy Mentorship/Internship, Virginia Beach, Virginia 2007, 2009
Worked as a Project Manager under the Dollar Tree annual contract, Department of Defense contract
Communicated with landlords, engineers & building departments (PA, FL, GA, KY)
School-wide Presentation: AutoDesk Architecture (Ocean Lakes High)

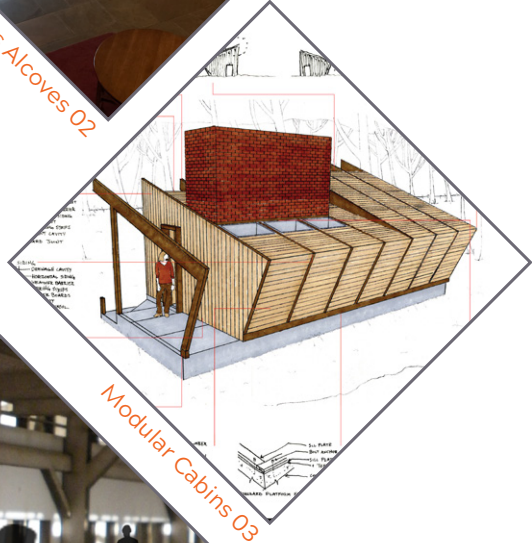
Research, Grants, and Publications (selected)

Black, K., (2016) Educators as a Filtering Information Node: Design Frameworks.
Black, K., (2016) Turtletown: design for your own backyard.
Black, K., (2015) Learning by Doing: Applying Vegetated Assemblies in Architecture Studio.
Black, K., et. al. (2015). Fusion of teaching and research: design support tools and vegetated walls.
Black, K., Doorn, T., (2015). Student-Driven Design in Architecture:
Global Perspectives Program Grant 2015
Society of Building Science Educators Travel Grants (2 awards) 2015, 2016
Construction Grant: Electric Car Enclosure 2013 – 2016
GSA, Case Study Research Grant & Architecture Travel Grant (5 awards) 2012, 2015, 2016
RCI International Convention and Trade Show Scholarship (2 awards) 2012, 2013
COL Paul M. Jacobs and Frances Jacobs Grant 2010

Skills (selected)

Digital: AutoDesk Products, Adobe Design Suite, Website Design and Maintenance, Print Graphic Design,
Microsoft Office Products, Climate Consultant 5.2, WUFI 1D 5.2, Google Sketch Up, Rhino
Analog: Workshop Facilitation, Drafting, Sketching, Mixed Media Art, Modeling, Construction Drawings,
Construction: Grant Funding Proposals, Materials analysis, budgeting and financing, Full-Scale Building
Mock-Ups, Photography

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Welcome Pavilion

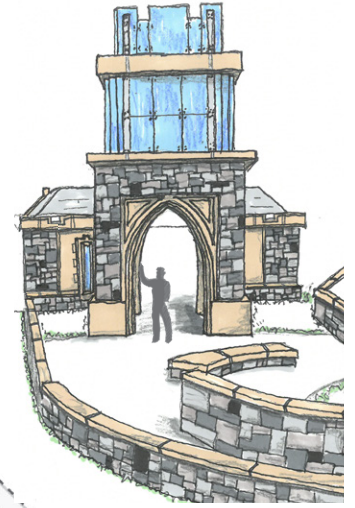
Welcome Pavilion

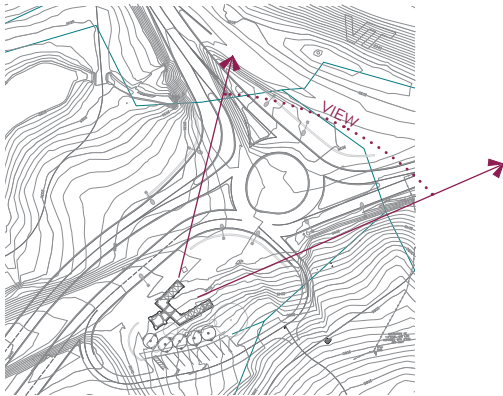
Virginia Tech has long maintained a Collegiate Gothic tradition on campus. Examples of this tradition include Burruss Hall, East Eggleston Hall, War Memorial, the Gothic arch at Eggleston Hall and more recently the Visitor's Center.

The tower form is expressed in many of these examples and is characteristic of Virginia Tech's collegiate Gothic lexicon. Further discrete elements include portal, ribbed vaulting, crenelated parapets, beveled window surrounds in stone or precast all with a distinct hierarchy of forms.

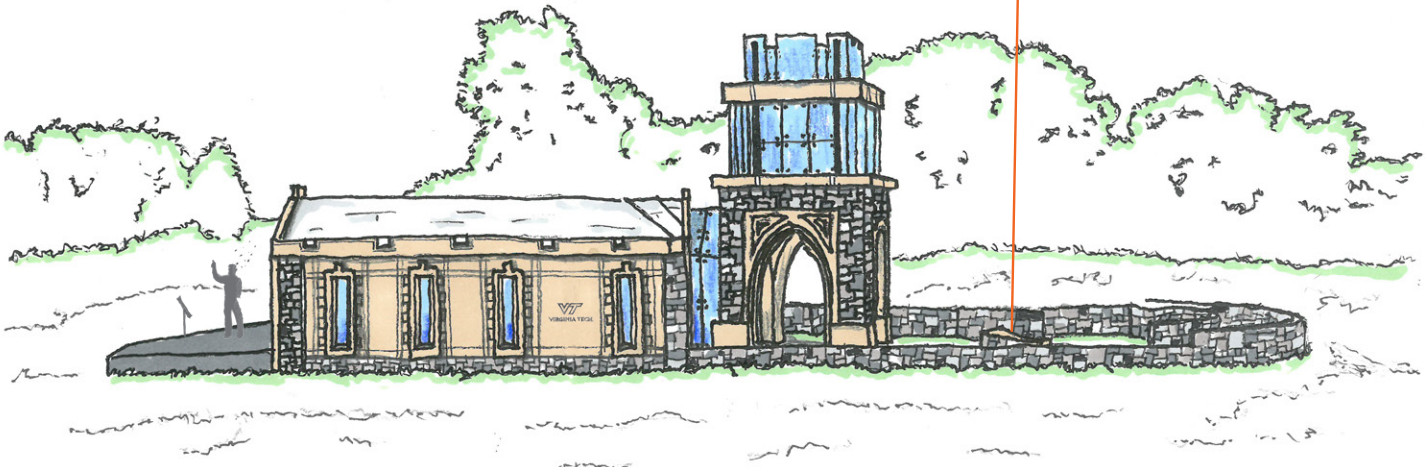
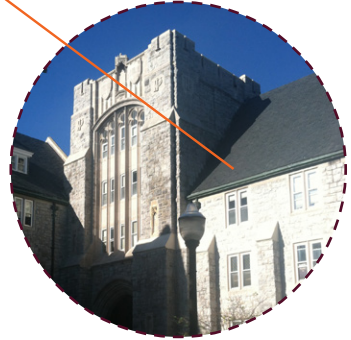
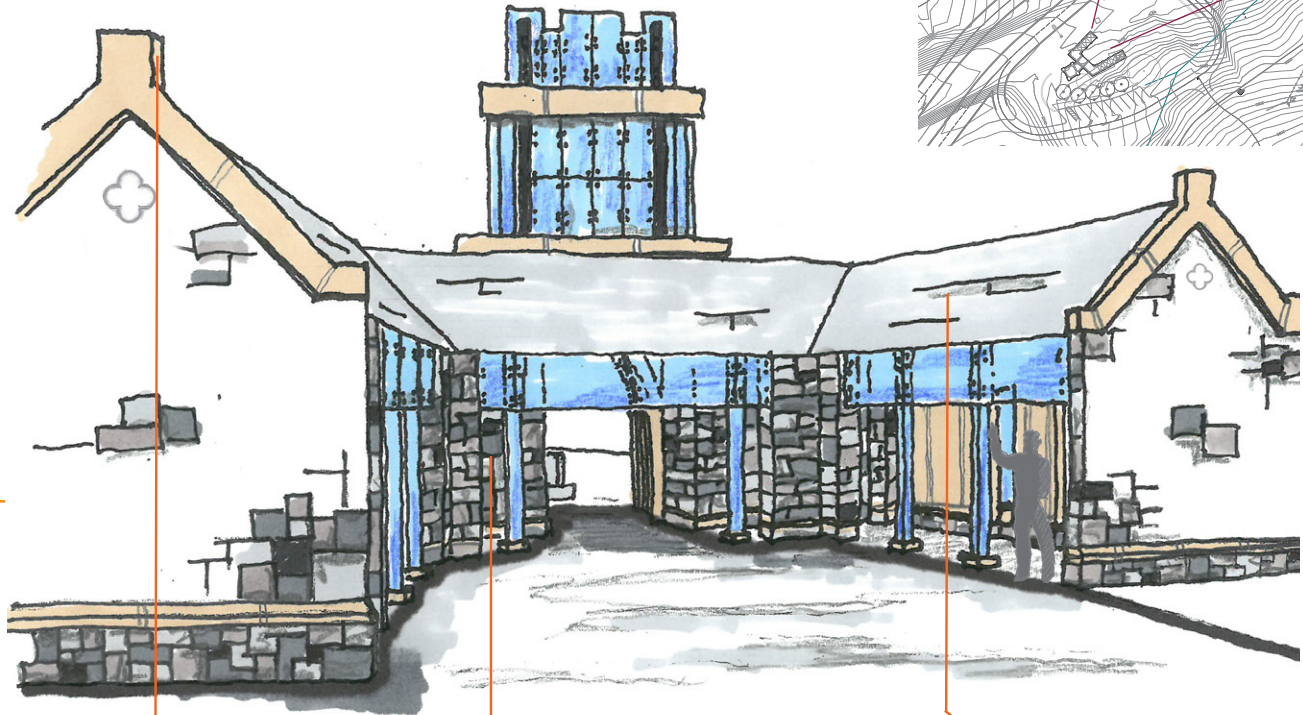
As the focal point of the dramatic, new entry sequence to campus, the Welcome Pavilion affords the opportunity to set the stage for prospective students and visiting alumni alike. The pavilion is an opportunity to showcase our rich history and traditions together with new traditions we are forging daily through innovation and discovery.

Material Expression is an important part of the Virginia Tech experience. The material palette for the Welcome Pavilion consists mainly of Hokie Stone, precast concrete, glass and concrete. The space utilizes structural glass for columns to the central courtyard.





View of Courtyard



Northeast Elevation

Burruss Alcoves

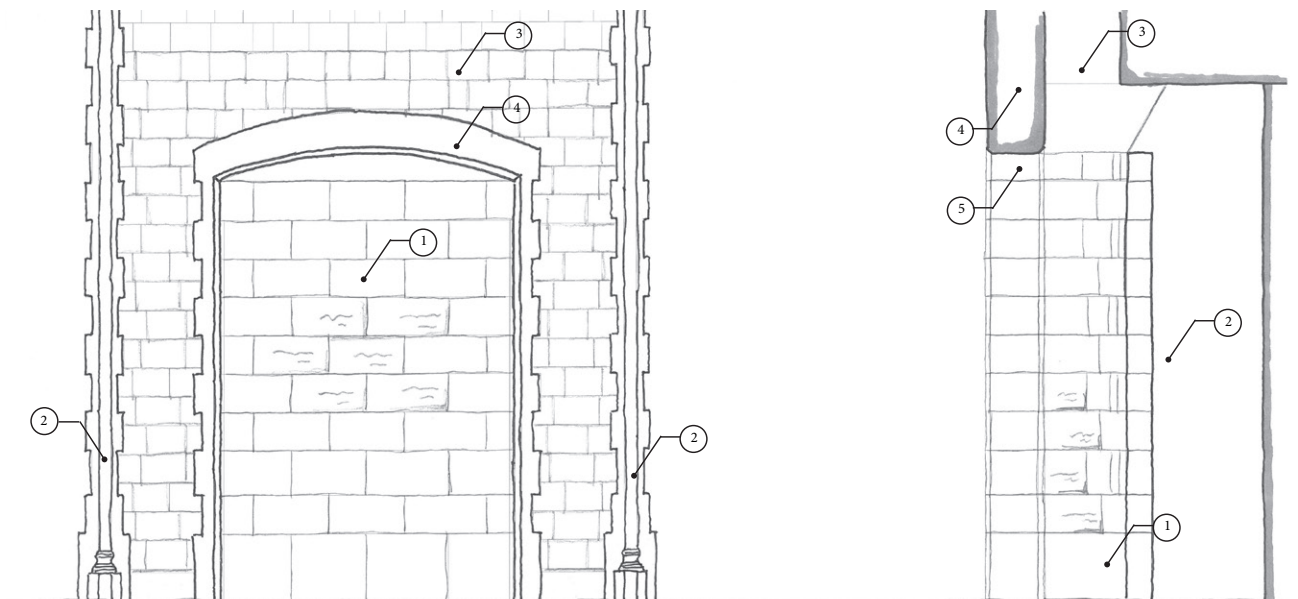
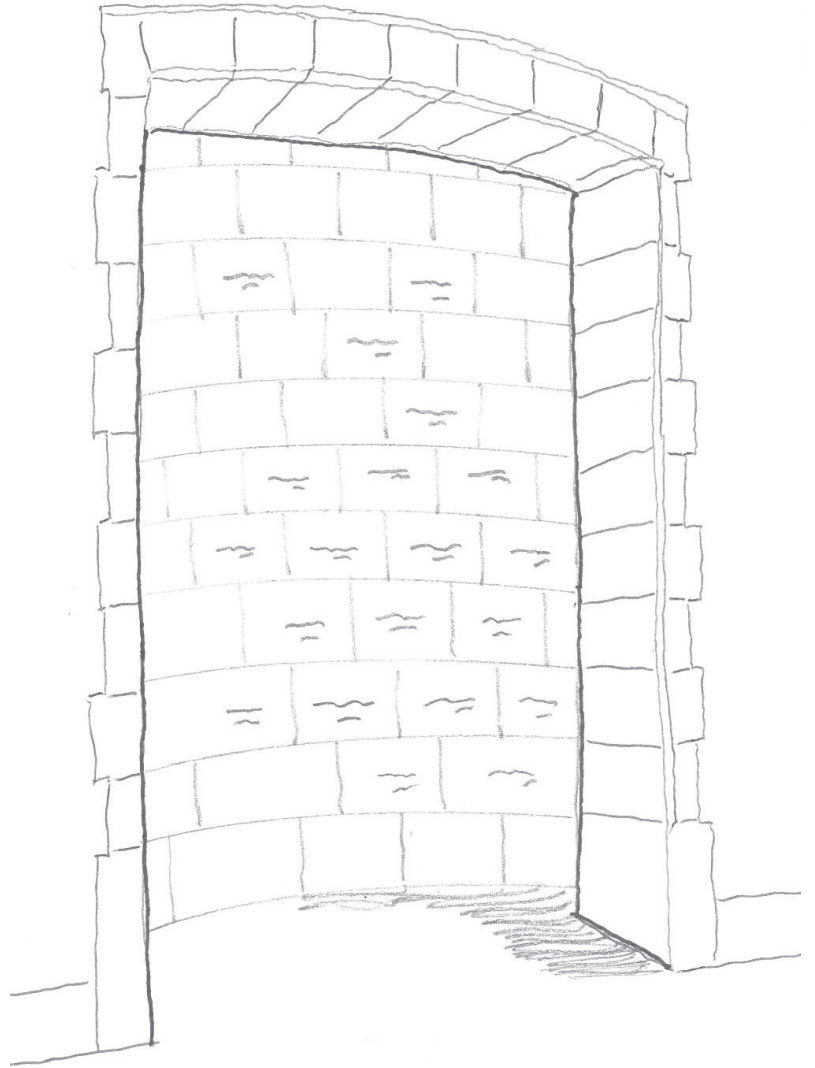
Burruss Alcoves: Foremost Benefactors

This project was to recognize individuals who had made significant contributions to Virginia Tech and update the two entry alcoves in the Burruss Rotunda.

The project included the removal and demolition of existing conditions to install a curved stone wall alcove. Recessed lighting above and a staggered running bond provided relief to cast dramatic shadows between the courses and highlight the direct-engraved names.

The stones align with the existing stone archway to blend with the existing architecture of the space.

I assisted the University Architect and the Non-Capital Supervisory Project Manager in providing schematic designs and design intent construction administration for the project.





Previous Burruss Alcove installations



Renovated Burruss Alcoves Donor Recognition Walls

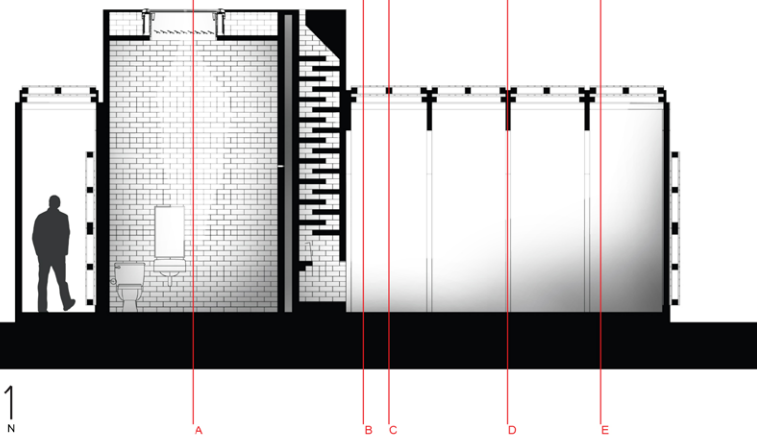
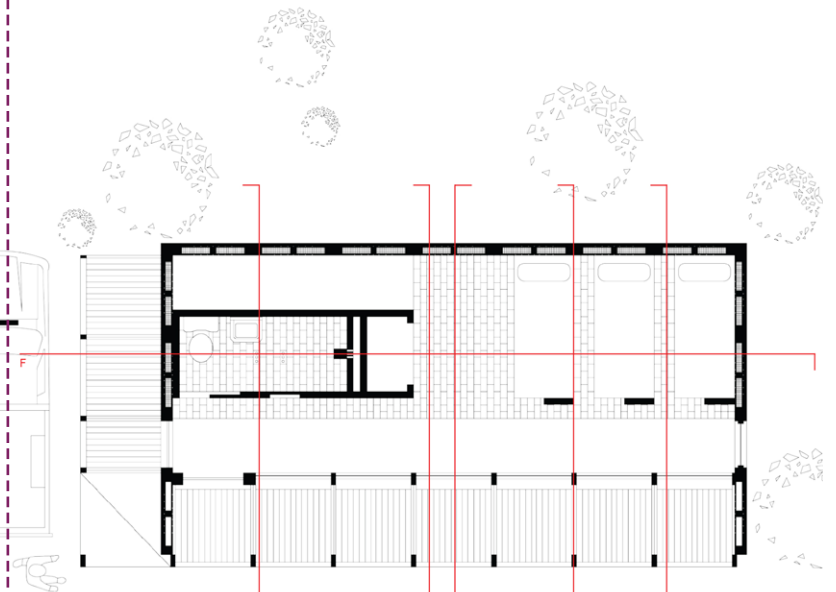
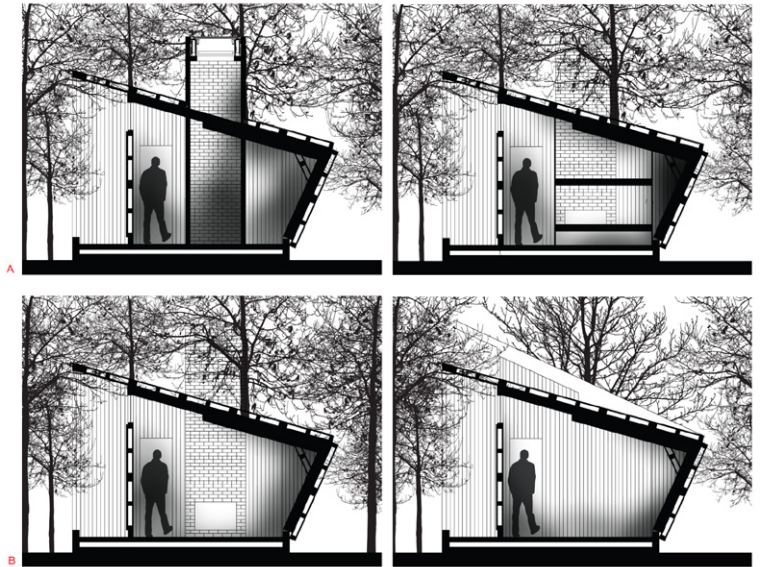
Modular Cabins

Mountain Lake Biological Station Cabins

The project was a renovation for a series of about 20 summer cabins all of which were a similar depth, but very different lengths. This prompted using a core that would be similar across all cabins, but then an adjustable extension for sleeping capacity. It also needed to be built by hand as it was in a National Park, prompting a meticulous study into how the framed bays and pallet were constructed.

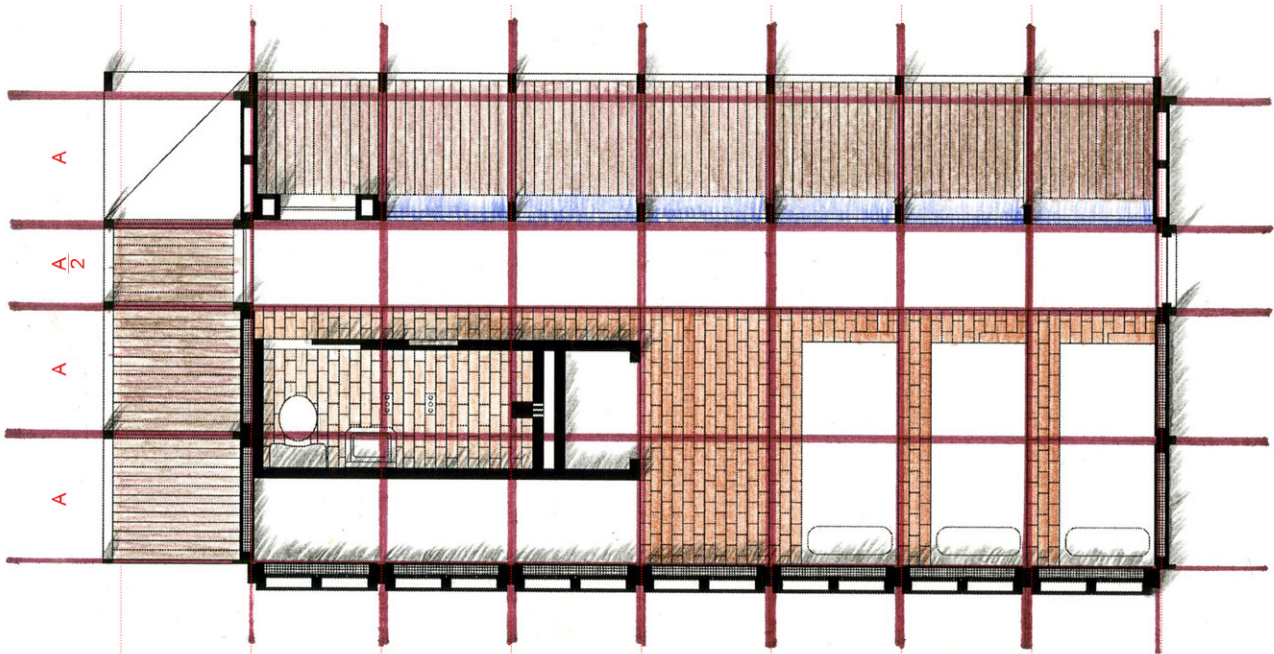
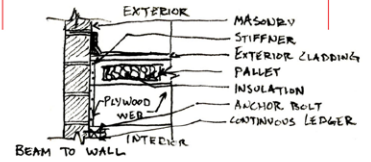
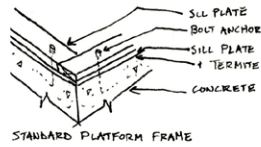
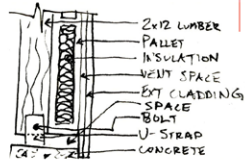
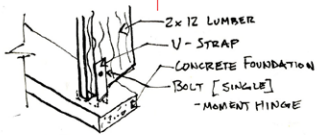
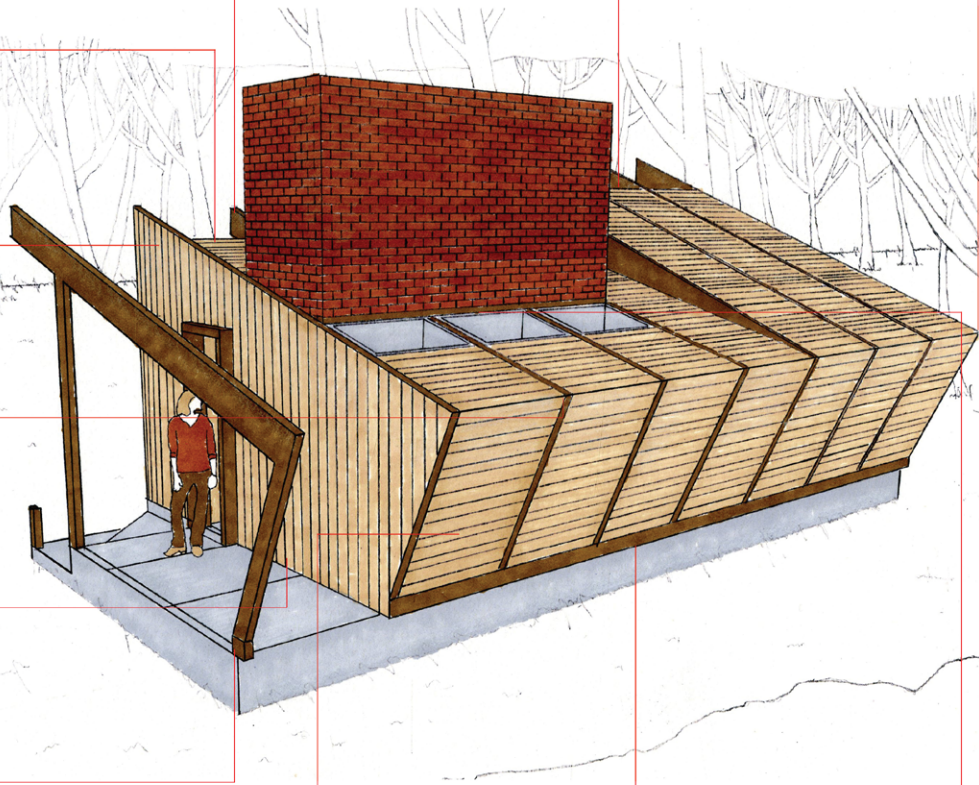
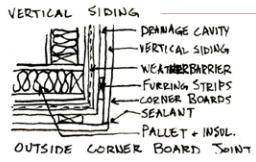
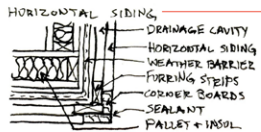
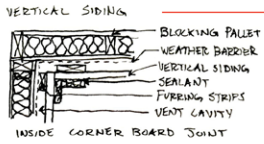
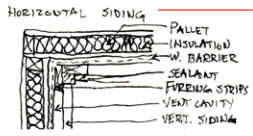
The brick volume core was founded on light with the bathroom and fireplace using a skylight to bathe the room in color. During the early spring green would be cast into the room after light passed through the new growth transparent leaves of the trees above. The Russian stove style fireplace was central to giving these cabins a cultural and solar core.

This cabin embodies what I found interesting in architecture: small, efficient, sun-filled spaces. In this instance the project would serve 6 people in 350 square feet, bathed in natural light. This is not only because light is enjoyable, but it is performative, as an envelope-dominated cabin needs light warming the space in the winter, and trees' shade in the summer.



Cabin Section F
Scale: 0 24" 48" 72" 96"





Mixed Use & Light

Mixed Use and Daylighting

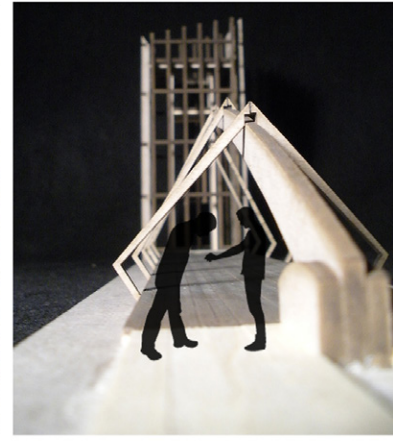
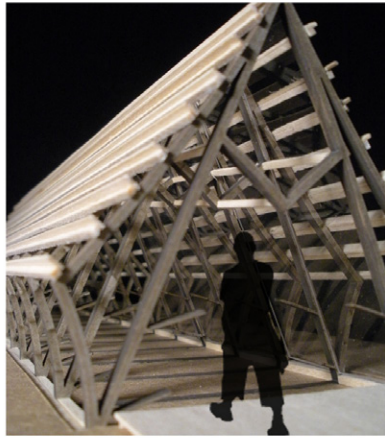
The Chesapeake Bay Foundation project is a new regional center for teaching and research new methodology is in sustainable practices to be taught in Virginia Beach. The core idea of all of these projects is first the sun.

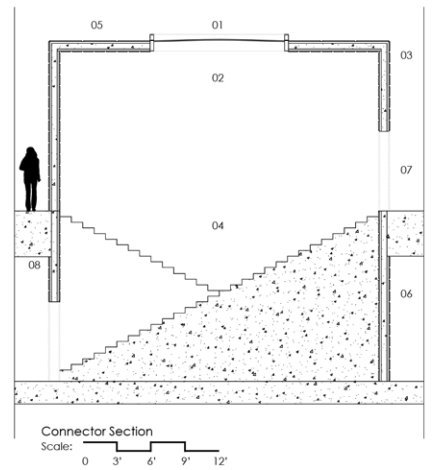
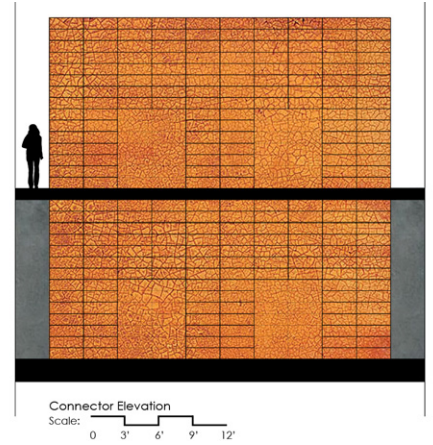
Going from the upper left counterclockwise, there was a kayak put-in, outdoor classroom, a bridge and tower nature trail, and the research center. The research center was suspended by a frame system, floating above the tidal zone of the site.

Lines of inquiry span many projects. 200 Church Avenue is a multi-use structure focusing both on day and night lighting conditions of both light and shadow. What do light cannons become in the night? A place to sit, and at different scales they bring people back to the light above.

Different levels of the space had different programs and lighting needs. The entire facade is clad with a manually operable louver system on the exterior. This allows the module of every program to be reflected in the facade as louvers are opened and closed.

This project is also the first time that a large-scale fully accessible vegetated roof was introduced into a project, creating a raised plaza to view the light cannons from above.





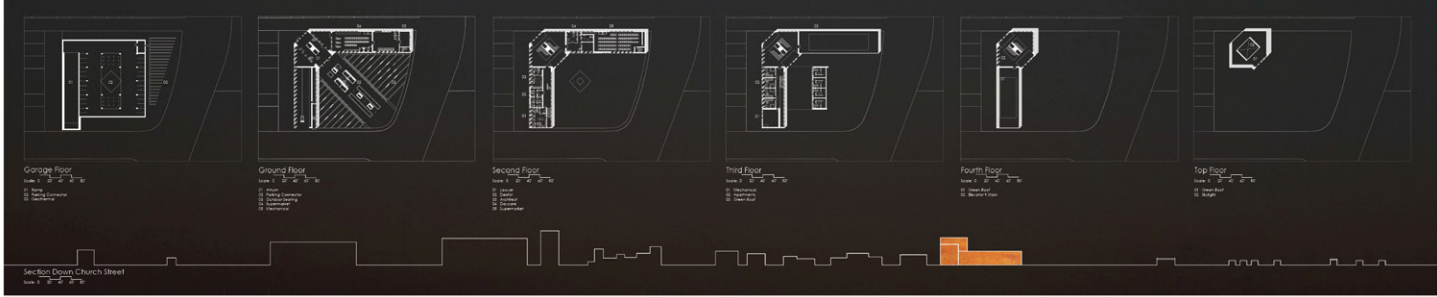
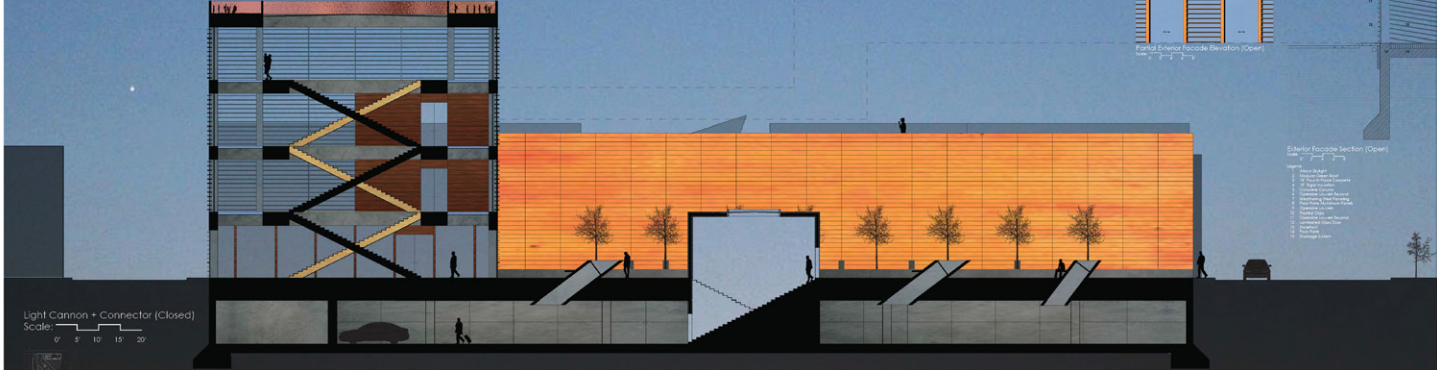
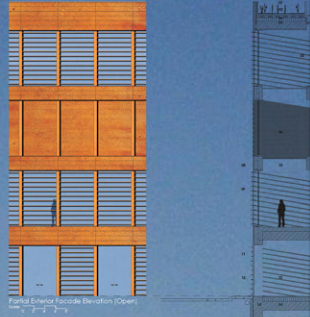
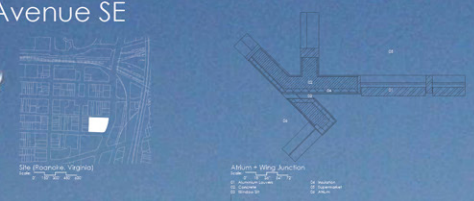
200 Church Avenue SE

The site has a path that directs the user to the lowered structure. Along the path, light cannons give views down into the lower space of the parking garage. While on the path, there are opportunities to stop and sit, providing a private, private space within a larger public realm.

The building is developed around the facade. The operable tower system provides a constant facade that ties all of the separate volumes together and then controls the permeability of light to the various spaces.

The system is electrically driven, but several bits of towers are operated separately. This allows the facade to adapt to varying loadmaps within the structure, but still maintain unity.

The depth of the towers allow for deep shadows when the facade system opens during the daylight hours. These shadows not only cast into the building but also onto the facade making greater privacy.

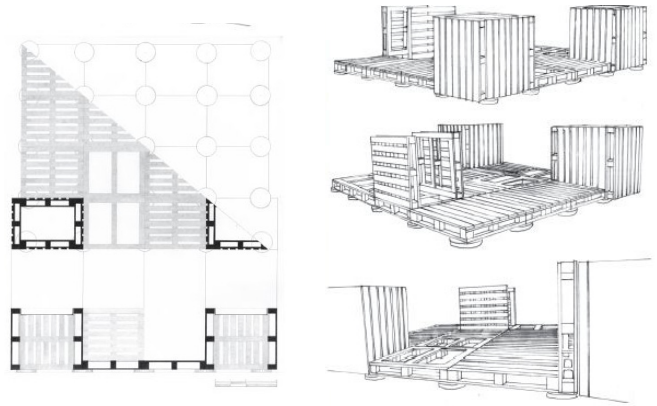


Section Down Church Street
Scale: 1" = 3'-0"

Design Frameworks

The Module of the Pallet

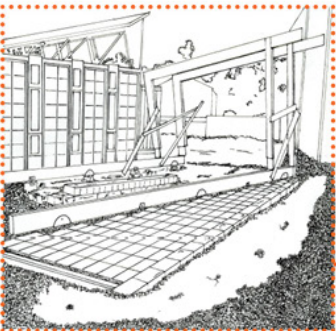
The deck and planter started a line of inquiry and work that has spanned many years. The projects include: Pallet deck and planter, prototype wall sections, the full-bay bus stop, the Solar Garage, and the Solar Lounge. The questions of the sun, reclaimed materials, module and community design weave a thread through the work.



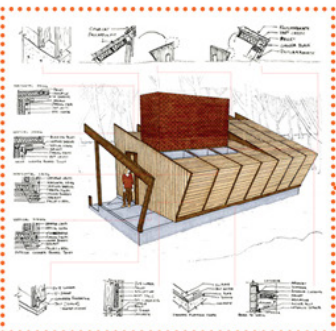
WATERCOLOR LEAVES



PIXELIZATION OF FRANK LLOYD WRIGHT

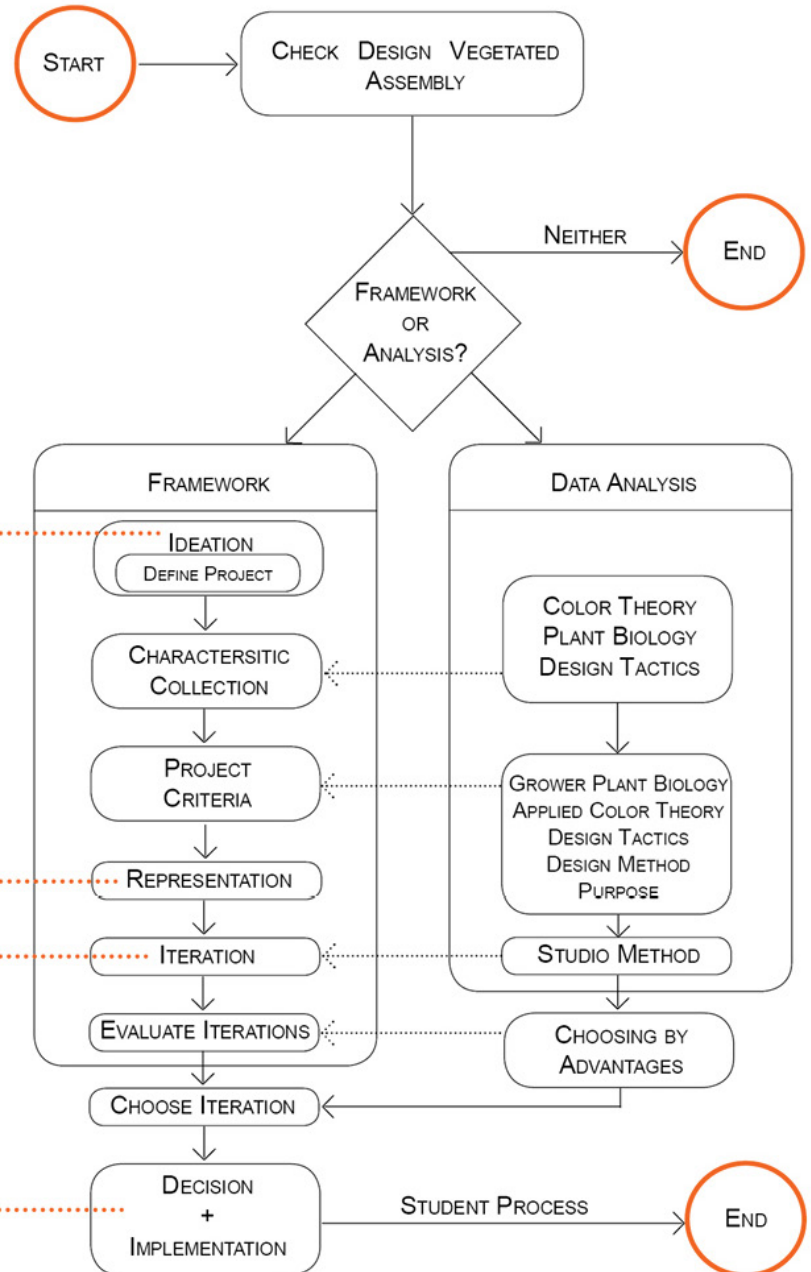


SOLAR GARAGE UNDER CONSTRUCTION



DESIGN REPRESENTATION OF THESIS

FRAMEWORK FOR IMPLEMENTING VEGETATED ASSEMBLIES IN STUDIO





Full Scale Constructed works: Pallet Deck and Planter, Bus Stop, and Electric Car Garage
05 Design Frameworks