Boomerang Studio: Community Design for Action

Jessica Walton

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Acknowledgments

Many thanks to the IDES faculty and staff, especially my advisors, Christina Lafazani, Roberto Ventura, Emily Smith, Rob Smith + Hillary Fayle. Your support and feedback has been integral in developing my skills and interests as a designer. A special thanks to Carla Mae Crookendale for the research assistance.

So much appreciation and admiration for my fellow classmates! Your individual styles have made for an interesting, thoughtful and often a laughter-filled experience.

Finally, thank you to my family and friends. I am lucky to continually be loved and supported by such great people.
Design should excite, motivate, develop, engage and inspire.

Design is layered. It has no end. It touches every aspect of life in its way, design changes our concept of time. Design increases productivity or asks to savor the moment.

Design is a call to action. To beautify, to contemplate, to educate, to imagine the past or create for the future.

To craft an experience using hand, body and mind. To engage the senses.

Design constantly assesses movement while looking at the past. Ultimately, design benefits the user. A designer must show an understanding of the user’s connection to the space within the design.

A designer’s character is reflected in their design. Therefore, one must pursue design with honest intention.

Design has the ability to spark discussion.

Design has the ability to give a voice to those who are underrepresented. In this way design empowers.

“Make furniture that people can be comfortable living with. If you’re not preoccupied with making an impact with your designs, chances are something that looks good today will look good tomorrow.”

Sam Maloof
Methods
Numerous case studies and literature reviews make an argument supporting the belief that students benefit in many ways from arts education and design thinking. Reviewing statistics on the availability of arts programs in public schools further proves the importance of these programs. Interviews and peer reviewed writings address the importance of diversity within design and the means of achieving greater representation for marginalized designers.

Results
“African-Americans are approximately 13.5% of the nation’s population…The number of black registered architects who are members of the American Institute of Architects currently is barely 1%” (Travis, 2010).

Architects, designers and educators such as Jack Travis explain that within design there is a lack of representation which creates tension between white peers who struggle to engage in conversations of inclusion. There are very few initiatives within the design community to engage in this topic or encourage different voices to join the profession. Students with these skills are more engaged in the learning process (Razzouk & Shute, 2012).

Motivation
A study published by the Southern Education Foundation in January 2015 found 31% of Virginia public school students in 2013 came from low income families. A policy brief from The Working Poor Families Project states that, of the 24 million children from low income families across the country, over half are racial or ethnic minorities. Additionally, research conducted by the American Institutes for Research found that those underserved communities were provided less access to arts education in K-12. The percentage of African American and Hispanic students who had received any level of arts education was 26.2% and 28.2% respectively. Comparatively, white students received arts instruction at more than double the rate, 57.9%.

Problem
Arts education has been shown to help at-risk communities develop more engaged students (Trudeau, 2011). Through in-school or community-based programs, urban youth in low income communities are taught to be more aware of their social, political and community impact when they engage with the arts (Citro, 2011). Arts programs serve as important stepping stones for exploring careers in design, which typically lack diversity. However, students of color enroll in art and design school in lower numbers than their white peers, while the ratio is high in ranks across other disciplines. The 2014-15 Compass Data Set from the Pratt Institute reveals 18 students of color and 229 white first-time first-year students. Lack of diversity is also reflected in faculty. Rhode Island School of Design’s 2014 fact book lists 129 white faculty and 17 black and Hispanic faculty.

Design should address multiple experiences, yet it draws primarily from the dominant culture. Much like arts education, design thinking teaches key skills that transfer to a variety of situations beyond design. These skills, such as critical thinking, problem solving, interpersonal relationships, risk-taking and the ability to communicate with peers and laymen, are critical in navigating the adult world. Programs that aim to teach design thinking to low income communities might provide students skills that will expand their educational and career opportunities. Research reveals that schools with arts programs had higher graduation rates and SAT scores than schools without arts programs. Additionally, those programs would expose underserved communities to design opportunities, potentially removing the need for greater diversity in design.

Conclusion
Students who develop design thinking skills become more engaged in the educational and creative processes. They have more positive conflict management and communication skills, which influence their interactions in other situations outside these programs.
Decline of Arts Education in Underserved Populations

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Arts Engagement in Relation to College Graduation Rate Among Low-Income Students

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Diversity of Interior Design Professionals in Comparison to U.S. Population

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case studies
Studio H

Studio H is a public school studio class modeled after a design-build style of design discovery. The program creates real world projects for middle + high school students in communities that lack interactive, design thinking based curriculums. Through the Studio H class, students have the design process six projects they’ve imagined and followed through to creation. Program founder, Emily Pillonton breaks down the curriculum into six design directives:

- Design through action
- Design with, not for
- Design systems, not stuff
- Document, share, measure
- Start locally + scale globally
- Build

And approaches the integration of education and design as a means of fostering community by addressing the overlap in thee main ways:

Design for Education.
Addressing the spaces, materials and experience within an occupied area.

Redesigning Education.
Looking at how education is administered, what is offered and to whom. In other words, providing opportunity for change and the motivation for those involved to want change.

Design as Education.
Teaching and learning. “Design thinking, coupled with real construction and fabrication skills put towards a local community purpose.” As well as, existing the critical studio environment with a shop based class to apply core class skills.

How does Studio H inform the spark?

Studio H addresses many of themes within spark’s program. It focuses on the same demographics - middle + high school aged students, with particular attention to girls and students of color, showing them the ways they can use their core subjects to generate an interest in the experience of spaces and how things are made, while emphasizing the local community for which the students are design for.

Studio H pushes students to think creatively + encourages self-expression through these community based projects. The Studio H curriculum celebrates independent critical thinking, experimentation and helps to foster confidence through a sense of accomplishment + new understanding.

Students learn critical thinking, collaboration and verbal communication skills which are vital in the working world. Studio H’s year long curriculum teaches students the order of hard work, hands-on learning and craftsmanship.
Studio Gang Architects
Completed 2014
Kalamazoo College, Kalamazoo, Michigan

This building was designed with diversity in mind. It is meant to engage the community in conversations about social justice. It does so by creating an interior space that is open and communal. At the center of the building a sunken area with a fireplace creates an inviting place for conversation. Furthermore, it creates a direct connection between the dialogue happening within the building to the communities outside the building. Each arm of the building overlooks landscape particular to the college community. City, grove and campus are visually connected to the heart of the building through three sight lines and place all 3 as equally important.

The Arcus Center for Social Justice Leadership

pathways lead to center of space, sunken area with fireplace creates area for conversation at heart of building.
MVRDV's design for the new office building of a broadcasting company sought to create an interconnected space that changed elevation through a variety of means beyond the standard staircase. The designers employed ramps, stepped floor and grand staircases - also used as alternative seating areas, to connect the 4 floors of the building. Additionally, the building's design brings the exterior lines into the space, extending the curves of the facade through to the interior of the office, making a strong connection to the outside. This technique also capitalizes on the desire to create a flow throughout the building from level to level. The use of concrete to call out the strong geometries of the space creates a continuity from exterior to interior.
Neighborhood

Randolph is a historically black middle class neighborhood. The area is named after Virginia E. Randolph, an African-American woman who was a prominent educator in the Richmond area during the 19th century. The neighborhood is flanked by The Fan, Oregon Hill and Maymont. The close vicinity of VCU creates an opportunity for engagement between VCUarts students and the Randolph community.

In the early 1970’s, a group of neighborhood activists worked closely with the Richmond Redevelopment and Housing Authority (RRHA) to rebuild the neighborhood. Much of the area was razed and redeveloped, which caused many older residents to leave the neighborhood.

In response to concerns of gentrification, the redevelopment originally called for a large amount of low income housing. However, the Department of Housing and Urban Development (HUD) thought a high volume of low income housing in one area would create a concentration of people with minimal resources and the plan had to be reworked.

1981 saw the creation of new public housing and Section 8 subsidized rentals for low income residents. However, interest had been building for the development of private homes. This caused RRHA and HUD to reassess their plan.

The new development plan was tagged as, “build a neighborhood, not a project.” Its aim was to create a mixed income neighborhood. Initially, the original community disapproved of the plan. Following numerous community meetings, residents agreed to the new development plan.

The community was designed by UDA Architects. They focused on continuing to foster the current community. The development called for three parks, which created community space and drew home buyers who were concerned about a lack of green space in urban neighborhoods.

Currently, some of these homeowners still live in Randolph. However, the area has changed. Many homes have been purchased by investors and subsequently rented to VCU students. The changes in the area have taken away from the community that residents fought hard to develop.
site study
initial programming
**Design Studios** | Wood Shop | Metal Shop | Gallery | Reception
--- | --- | --- | --- | ---
**Description** | Two spaces where designers + students gather to explore design projects. | Space for cutting wood panels. Used by technicians + designers. Heavy machinery. | Space for cutting metal panels. Used to display student works + design projects by hand. | Empty space of building. |
**Time of usage** | Periodically throughout the day. Used daily. | Periodically throughout the day. | Periodically throughout the day. | Periodically throughout the day. |
**Net area** | 540 sq ft | 1200 sq ft | 1200 sq ft | 1260 sq ft |
**Activities** | Design work, model making, drawing. | Furniture creation, cabinet design process. | Art work and design process. | Internal use only. |
**User** | Designer - Student | Designer - Student | Designer - Student | Designer - Student |
**Specific use** | Standing height desks, drafting tables, light box. | Woodworking machines, tools, workbenches, ventilation system. | Modular lighting system. | Desk = multi-person seating |
**Accessibility** | Yes | Yes | Yes | Yes |
**Acoustic privacy** | Yes | Yes | Yes | Yes |
**Visural privacy** | Yes | Yes | Yes | Yes |
**Physical privacy** | No | Yes | Yes | Yes |
**Occupancy** | 10 | 10 | 15 | 2 |
**Max capacity load** | 15 | 15 | 30 | 4 |
**Important adjacencies** | Office space, wood shop + metal shop. | Office space, wood shop + design studio. | Office space, need shop + design studio. | Reception + seating space |
**Important adjacencies** | Office + design studio. | Office + gallery. | Office space + seating space. | Design studio. |
design process

  conceptual

  schematic

  design development
Conceptual design began with the 30x30x30 project. Creating a series of 2D images and 3D models drawing on important concepts within the research led to discoveries about the orientation of interior space. Work was largely inspired by a series of drivers related to the aspirations of the project.

“For a songwriter, you don’t really go to songwriting school; you learn by listening to tunes. And you try to understand them and take them apart and see what they’re made of, and wonder if you can make one, too.”

- Tom Waits
Taking important discoveries from the 30x30x30 exercise and diving deeper into the conceptual exploration of certain drivers led to a series of 2D and 3D pieces. The example below looks at the wealth and ownership. In researching the lack of diversity in design and the societal influences for this, an understanding of wealth and income inequality played an important role.
Conceptual studies of spaces within the building. Looking at types of spaces, light and function.
Metaphorically, the give and take between educator + student can be seen as a tree, old + experienced, giving itself to a fire in order to provide nourishment for the greater good. As the tree burns, it becomes ash which provides important minerals necessary for the growth of the younger tree.

Give is greater and inspires taker to give to a new taker

Taker becomes giver

Concept

Education is a constant give and take. Educators give themselves to educate the young because they value a community of informed citizens and realize the importance of each child receiving an education as it has been an important path for their own opportunity.

Despite this selflessness, students don’t always reciprocate. They lack life experiences or have been taught to value alternatives to education. Educators know that the return for investing in their students now is a future with more engaged, thoughtful adults.
The schematic design process started with general diagrams of the anticipated areas within the building and developed into solidified plans, sections and elevations. Over the course of the schematic phase, original programming changed as new ideas were generated. The wood and metal shops became a single shop space. A second level was added with pin up and critique space. Additionally, the gallery space was redesigned to be an open area and was moved to the middle of the building.
Honing in on spatial layout, bringing concept into FF+E and developing a variety of drawings to express the nature of the space were the main focuses of the design development phase. Much of the time spent was going over previous iterations of drawings to tighten the link between concept and physical space.
presentation content
Axon cut through bench of ribbon

Axon cut through window of ribbon

Magnetic glassboard

Bench with 5" birch plywood ribbon

Window

Ribbon
Reception,
A bright area welcoming families, students and other guests. Furnishings within reception and throughout the building aim to showcase classic and modern pieces within the design world to be used as precedents for students learning in the space.

Polygon Wire table | Herman Miller | Studio 7.5
Linon chair | Alberto Vitello
Optical Light pendant | Lee Broom
Tropicalia lounge chair | Patricia Urquiola
Eames Wire Bbox Low table | Herman Miller | Charles + Ray Eames
Ribbon Wall

A continuous ribbon of birch plywood frames the studio entrances, then runs through the space using rectilinear lines and turning corners to become various surfaces with which users can engage.

**MATERIALS**

- Clarus Glassboards: Magnetic, Pop teal
- Plexwood: Birch, oil/wax finish
- Birch plywood
Studio

Open area with large work surfaces. Brightly lit by large storefront windows. Looking out onto W. Main St., the activity within the studios creates a dialogue with pedestrians, drawing them into explore the space.

Mayline Ranger Drafting table

Qivi chair | Steelcase

Shortcut stool | Steelcase

Nelson X-leg table | Herman Miller | George Nelson
The open gallery creates a series of moments throughout the circulation space. Showcasing student work in multiple areas of the space aims to foster community and confidence in the students. A multi-use staircase provides opportunity for students to connect with their peers through conversation.
Critique Area

The second level provides pin-up and critique space for students, as well as a variety of areas to engage with each other on projects. The ribbon runs through this space, creating opportunities for student engagement through rectilinear geometries.

FF+E

材料

Plexwood
Okoume, oil/wax finish
show
opening
I was the recipient of the 2016 Award of Excellence for Best Abstract Submission Poster Presentation at the 2016 IDEC Conference. The poster presentation focused on Design Thinking: Planning Opportunities for Underrepresented Communities within the Design Discipline.
How can we as designers support efforts to increase diversity within our communities?

Project H is a hands-on, skill building program modeled after a design-build style of design discovery. Offering a year long studio class and a summer camp for girls, the program exposes students to the design process via projects they’ve imagined and follow through to creation. Through Studio H and Camp H, students explore the design process via projects they’ve imagined and follow through to creation. This style connects students to the local community for which they are designing. Project H pushes students to think creatively and through action: Design with, not for. Design systems, not stuff. Start locally + scale globally.

Representative seats of Racial Diversity

“William Americans are approximately 13.5% of the population, but make up only 0.2% of licensed architects, and 0.9% of interior designers. It is important for the design professions to be inclusive because design includes the spaces, materials and experiences of all people. Diversity makes clear the importance of licensure, it also touches on the lack of racial diversity within interior design, but does not touch on any intention or means by which they are working to make interior design a more racial inclusive profession.”

Another primary source touching on the subject of design within the discipline was found in Architectural Record. It notes the inaccuracy of these claims and commits to sharing this information in order to better connect designers with the communities they serve.

**Project H**

Students-Now.aspx. The primary source touching on the subject of diversity, design within the discipline was found in Architectural Record. It notes the inaccuracy of these claims and commits to sharing this information in order to better connect designers with the communities they serve.

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