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Boomerang Studio: Community Design for Action

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boomerang community design for action
Acknowledgments

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

Finally, thank you for 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 and in this 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 re-imagine the past or create for the future.

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

Design constantly survivors however the look of 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 intent.

Design has the ability to spark discussion. To engage others in questions of how. To create an environment that calms, supports, or energizes.

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

“My goal is to 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 bad 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.

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 should promote students skills that will benefit them both in their career while in college and on the job. Additionally, these programs would expose underserved communities to design opportunities, potentially answering the need for greater diversity in design.

Conclusions
Students who develop design thinking skills become more engaged in the education and creative process, they have more positive conflict and communication skills, which influence their interactions in other situations outside these programs.
Decline of Arts Education in Underserved Populations

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

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

Percentage of graduates

High arts engagement
No engagement
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 curriculum. Through the Studio H class, students learn the design process, six projects begin imagined and followed through to completion.

Program founder, Emily Pilloton 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 these 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, embedding the critical studio environment with a shop-based class to apply core class skills.

How does Studio H inform the program for 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 exploration of spaces and how things are made, while emphasizing the local community for which the students are designing.

Studio H pushes students to think critically + encourages self-experience 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 these 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.

interior space is inclusive, casual, communal space that encourages group dialogue. gray areas on perimeter provide more individual or formal space.
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 floors 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 explains 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 of form from exterior to interior.
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 VCU arts 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 cause a concentration of people with limited 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 HUB to reassess their plan.

The new development plan was tagged as, “build a neighborhood, not a project.” It was to be 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 internally spaced and three community parks.

Currently, some of these businesses 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**

1911 W Black St. was built in 1930, serving the local community for over seven years as a grocery store. The building became home to the Virginia Commonwealth University (VCU) in 1945, and was later used by the university for instructional purposes. The space operated as a university between 2000 and 2009 when the building was sold. In 2015, Martini Kitchen and Bar opened, closing its doors in November 2014. In summer 2015, it reopened as District 5.

area history
site study
sun study
parti diagrams
initial programming
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<td>Woodworking machines, drills, workbenches, ventilation system.</td>
<td>Metal working machines, tools, workbenches, ventilation system.</td>
<td>Washable lighting system.</td>
<td>Kitchenette with small dining space.</td>
<td>Office space + meeting space.</td>
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<td>Reception + meeting space + bathrooms.</td>
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design process

- conceptual
- schematic
- design development
Conceptual design begun 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.

**Visual representations of reaching out into the community**
Conceptual studies of spaces within the building. Looking at types of spaces, light and function.

Public
- Gallery
- Meeting
- Exhibition

Study
- Shop

Private
- Office
- Boardroom
- Kitchen

Private
- Park
- To
- Light
Metaphorically, the give and take between educator and student can be seen as a tree, old and 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.

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 experience 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 re-designated 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.

**FF+E Inspiration**
Initial Plan

Sketch of studio exterior from initial plan

Sketch of reception from initial plan

Edit One

Edit Two

Edit Three

Edit Four

Edit Five
Studio Ribbon Wall Elevation

Axon cut through window of ribbon

Axon cut through bench of ribbon

Magnetic glassboard

Bench with 5" thick plywood ribbon

Window

Ribbon

Level 2 Seating + Stair Section

Critique Area + Community Stair
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.

**FF+E**

- **Polygon Wire table | Herman Miller | Studio 7.5**
- **Linna chair | Alberto Vitello**
- **Optical Light pendant | Lee Broom**
- **Tropicalia lounge chair | Patricia Urquiola**
- **Eames Wire Base 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.

FF+E

Lightframe wood pendant lamp | Herr Mandel

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

FF+E
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.

FF+E

Stool 60 | Alvar Aalto
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
High Stool 64 | Alvar Aalto

MATERIALS
Plexwood
Okoume, oil/wax finish
show
opening
Design Thinking

How can we as designers support efforts to increase diversity within our communities?

Many times when students feel as though they want change. They need a comfortable learning environment and a supportive community. They need to feel that they belong.

The benefits to the design of a space that fosters the diversity of the people who will use it are many. First, the presence of a diverse group of students can enrich the learning experience for all. Students from different backgrounds bring different perspectives and experiences to the classroom, which can lead to a more creative and innovative design process. Additionally, a diverse faculty can provide a wider range of role models for students, which can help to inspire and encourage them to pursue their dreams.

Many design schools struggle to attract and retain diverse students and faculty. This is a problem that is not unique to the design field. However, there are several things that can be done to address this issue.

First, design schools need to be more welcoming to students from diverse backgrounds. This involves creating a supportive and inclusive environment, as well as making sure that students feel comfortable asking questions and expressing their ideas. Additionally, design schools need to provide students with the resources they need to succeed, such as financial aid and support services.

Second, design schools need to be more inclusive of diverse faculty. This involves recruiting and hiring a diverse group of faculty members, as well as providing them with the resources they need to succeed, such as professional development opportunities and support services.

Finally, design schools need to be more proactive in outreach to potential students from diverse backgrounds. This involves creating partnerships with schools and organizations that serve underrepresented populations, as well as participating in events and initiatives that promote diversity.

By taking these steps, design schools can create a more diverse and inclusive learning environment. This will not only benefit the students who attend these schools, but also the communities that they serve.
How can we as designers support efforts to increase diversity within our communities?

A study published by the Southern Education Foundation in January 2015 found 39 percent of Virginia public school students in 2013 were from low-income families, and nearly 30 percent of these students were classified as “at risk” and would face challenges navigating the educational system.

African-Americans are approximately 13.5% of the nation’s population...The number of African-American students enrolled in public schools is rapidly increasing...The 2007 Architect Magazine article states, “black women are the fastest growing demographic of students enrolled in design programs...Middle and high school students to the process and challenges of real world design projects...Teaching and learning, “design thinking, coupled with real construction...Program founder, Emily Pilloton breaks down the curriculum into six design directives: Design systems, not stuff; Start locally + scale globally; Document, share, measure; Build; Research; Practice...Designed by the initial Studio H class of high school juniors. Created for the 2,000 residents of Bertie County, NC. It is the only farmer’s market structure in the U.S. designed and built by high school students...has created 2 new businesses and 15 new jobs since its opening in October 2011”.

Committee Members: Emily Smith and Hillary Fayle

NYSID, Pratt Institute and RISD comprise 3...Teaching and learning, “design thinking, coupled with real construction...8. Fall 2015 Enrollments, VCU School of the Arts. Census Period: Current/Final as of 12/10/2015. Raw data. Center for Institutional Effectivness, Richmond, VA.

VCU School of the Arts Fall 2015 Enrollment

VCUarts Full-time Instructional Faculty

U.S. News & World Report ranked #1 public arts university

Design Intelligence ranked #4 undergraduate architecture (Private Institution)

Students

Arts found that these underserved communities are provided less access to arts education. A study published by the Southern Education Foundation in January 2015 found 39 percent of Virginia public school students in 2013 were from low-income families, and nearly 30 percent of these students were classified as “at risk” and would face challenges navigating the educational system.

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