We Are Effective!?

Len Charney, Dean of Practice
Boston Architectural College

130th NEASC Annual Meeting and Conference
Friday, December 11, 2015

A Century-Long Tradition of Competency-Based Applied Learning at the Boston Architectural College

". . . education is not an affair of "telling" and being told, but an active construction process. . . . Its enactment in practice requires that the school environment be equipped with agencies for doing.

(John Dewey, 1916, Democracy and Education)

BIGTRED
BIGTRED
BIGTRED
BIGTRED
cbteam

Navy Supply Corps School
"An architectural firm that cares for people and the way they use their environment"
Edward Rowse
ARCHITECT
Software
EdwardRowseArch
JOHN C. MAXWELL
The E Myth Revisited
PLATFORM

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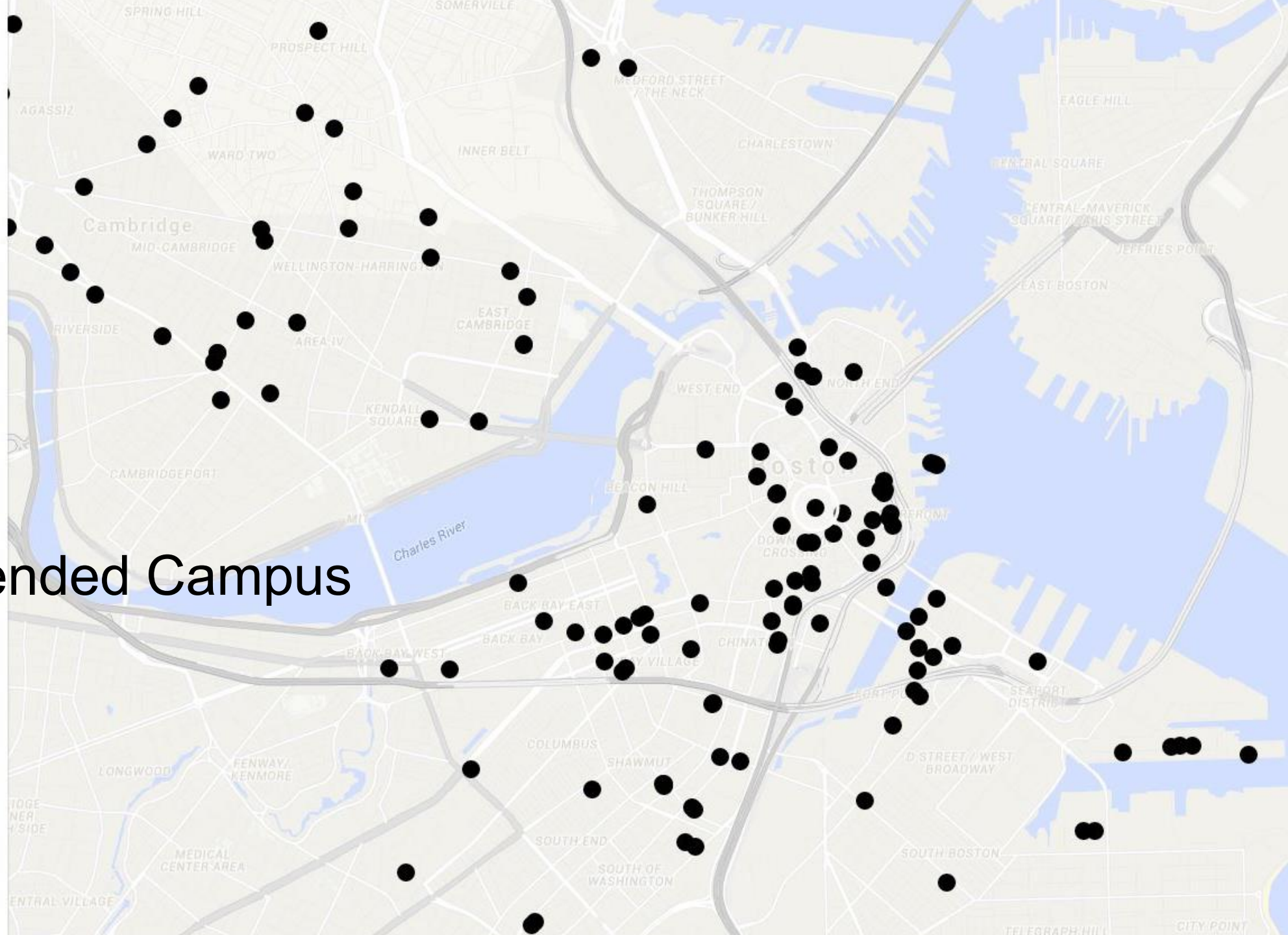
BAC’s Extended Campus



SPARKS
STARBUCKS
SAMSUNG

Please give yourself a rating in the following areas:
[4 = outstanding/exemplary; 3 = proficient; 2 = needs remediation; 1 = unsatisfactory; N/A = no opportunity to observe]

DESIGN SKILLS | 4 | 3 | 2 | 1 | |
- evaluates and solves problems effectively
- accesses, learns, and applies theoretical and practical knowledge
- brings skills and methodologies from academic work into practice work

COLLABORATION | 4 | 3 | 2 | 1 | |
- works effectively with others and manages conflict effectively
- helps motivate others to succeed
- understands and contributes to organization's goals
- respects diversity and diverse opinions

COMMUNICATION SKILLS | 4 | 3 | 2 | 1 | |
- speaks and writes with clarity, confidence, and concision
- makes effective presentations
- exhibits good listening and questioning skills

TECHNICAL SKILLS | 4 | 3 | 2 | 1 | |
- is showing positive development with software skills
- understands the role different technologies play in design
- understands technologies related to the execution of design projects

PROFESSIONAL DEVELOPMENT | 4 | 3 | 2 | 1 | |
- assumes responsibility, sets goals, can multitask
- possesses honesty/integrity/personal ethics
- shows initiative/self-motivation and good time management
- is punctual, has good attitude
- is engaged in design culture

7 Key Attributes and Practices to Support Competency-Based Learning

I. Students Assume Responsibility for their Own Learning through Self-Discovery

II. Natural Learning Means Learning on an “As Needed Basis.”

Students will come to understand that they need certain information in order to do their jobs well.

Roger Schank, “What We Learn When We Learn by Doing”

III. Indexing and Naming Experiences Leads to Better ‘Reminding’

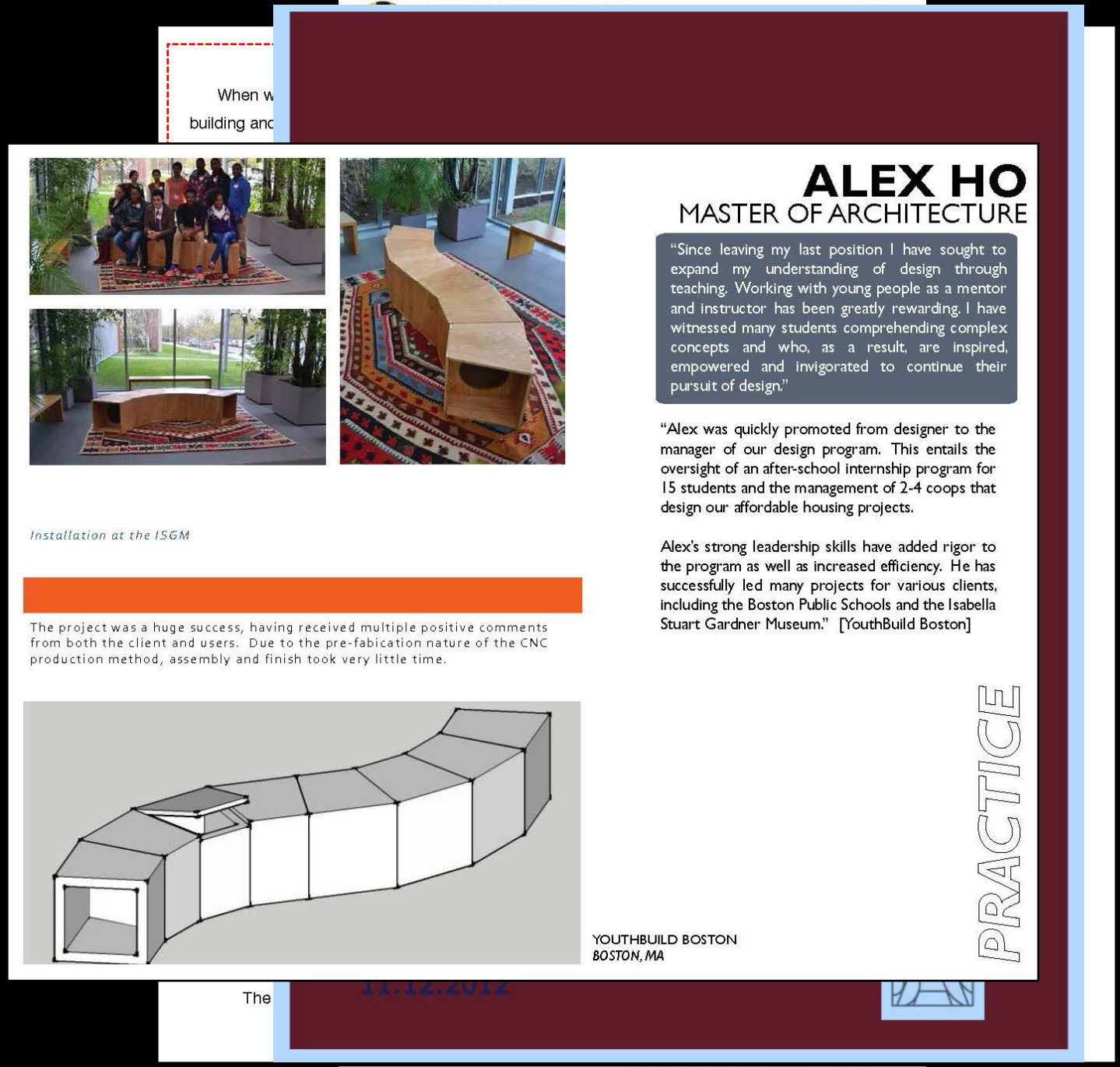
- Prior experience that helps us understand the current situation.
- Indexing enhances long term recall and the repurposing of learning

IV. Emphasize 3 Critical Learning Processes: Communication, Human Relations and Reasoning

- Learning your role
- Getting along with other team members
- Reasoning about the complex domain
- Communicating results

V. The Role of the Teacher is to be an Exposer of Knowledge

- Guide students to shape meaningful experiences.
- Frame questions to guide independence
- *Curiosity comes from trying things out, from failing on occasion, from explaining why, and from trying again.*



VI. Chronicle Growth and Mastery with Incremental Evidence of Understanding and Achievement

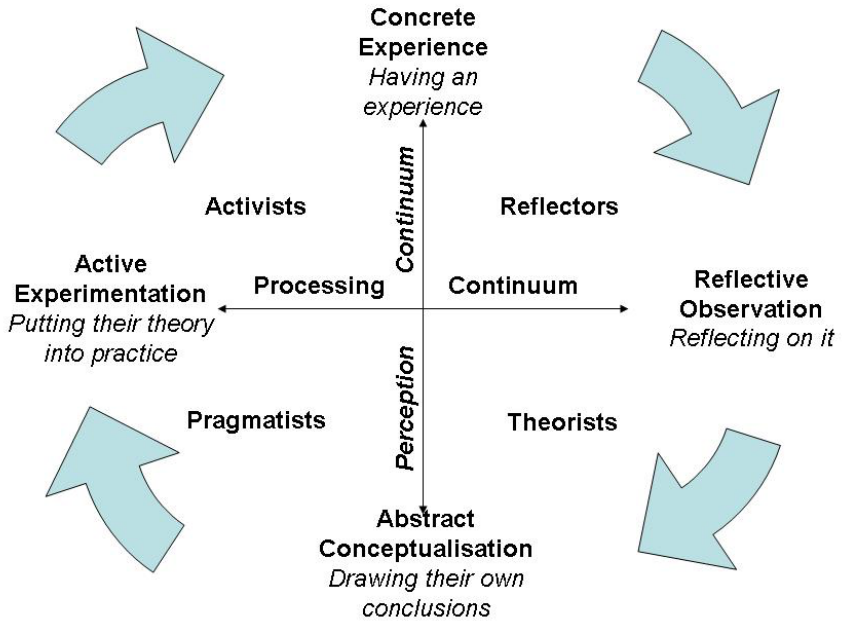
McTighe and O'Connor, Seven Practices for Effective Learning

VII. Distinguish Knowing from Doing

We need not ask our students to recount exactly what they learned unless we are seriously interested in what learning is all about.

Roger Schank

David Kolb's Model of Experiential Learning

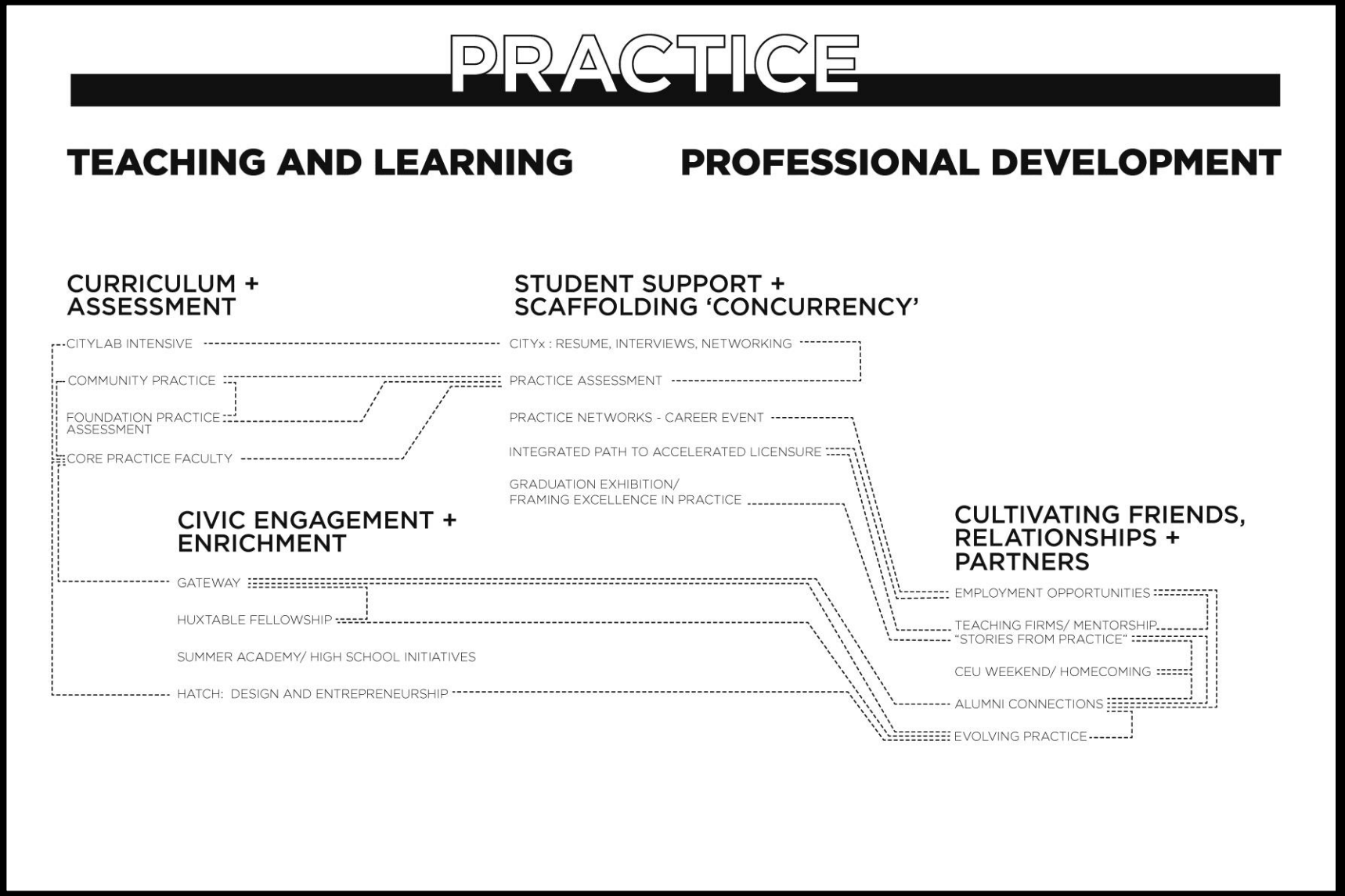


Four elements that promote a 'Spriral of Learning:'

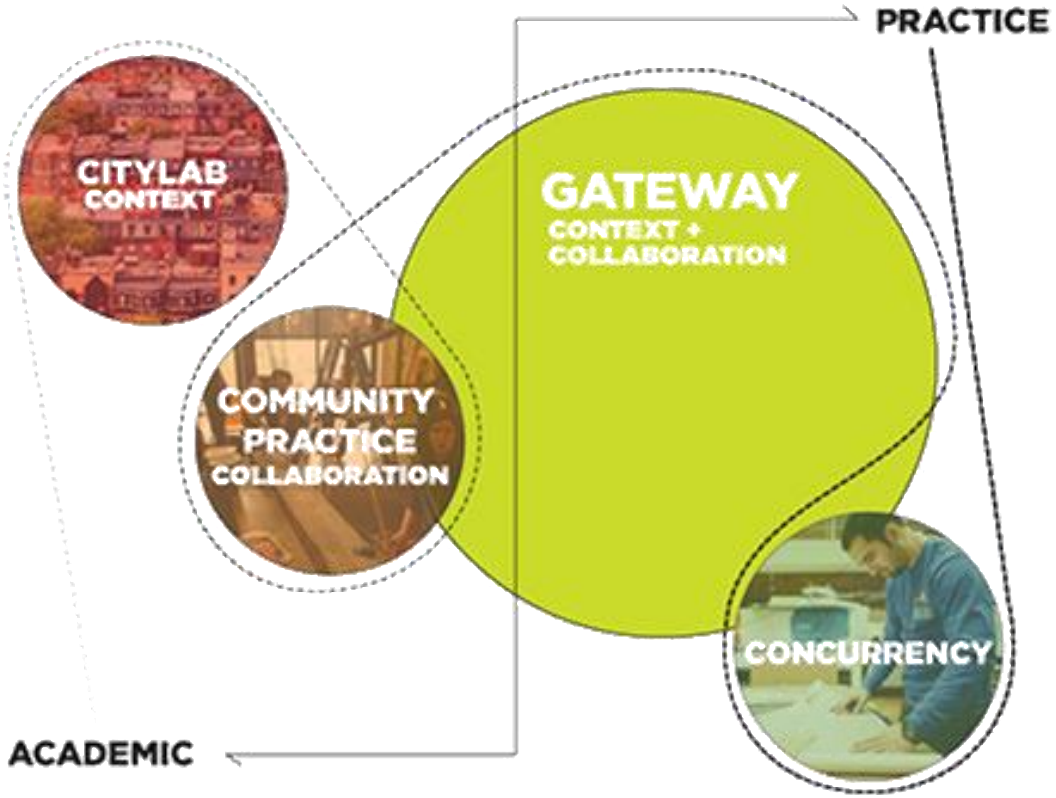
1. Concrete experience
2. Observation and reflection
3. Form abstract concepts based upon reflection
4. Test new concepts

REPEAT

The Pathway to Effective Concurrent Applied Learning



Applied Learning at the BAC



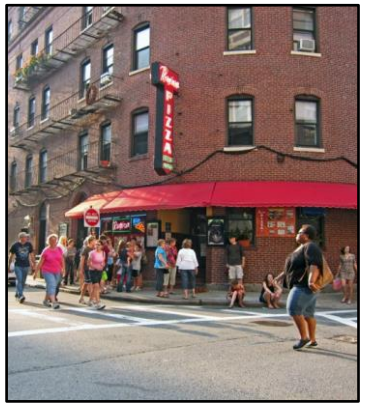
- During foundation year, students complete two core foundation courses in Practice: CityLab Intensive and Community Practice.

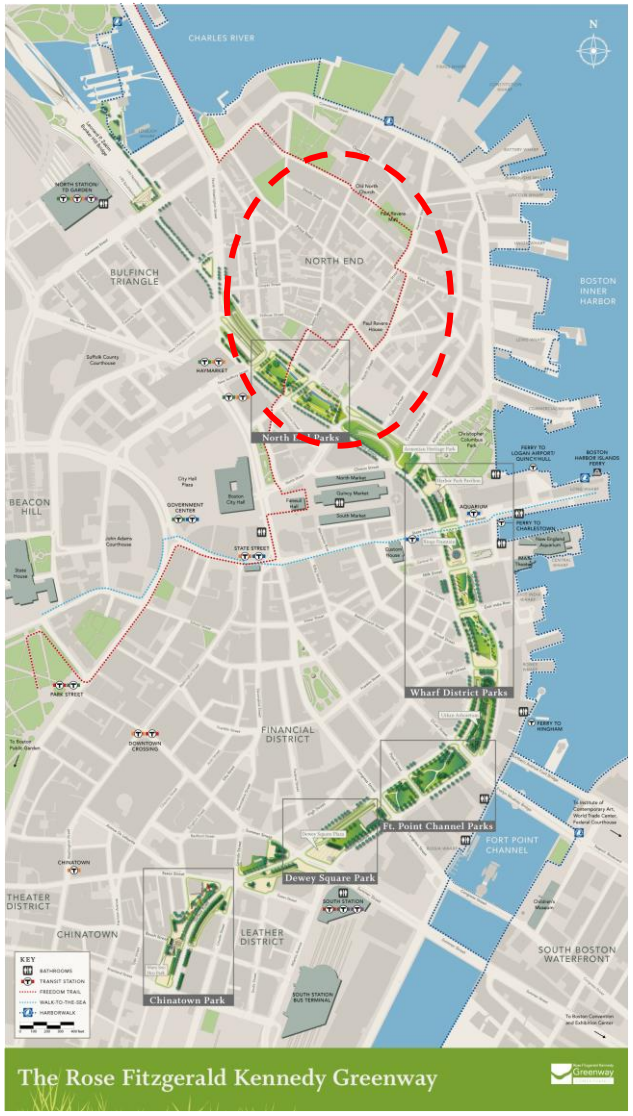
- These practice-based courses aim to scaffold professional and personal development in areas related to design thinking, critical problem-solving, communication, and collaboration skills through applied learning.

CityLab Intensive: Introducing Applied Learning Outside the Classroom

CityLab Intensive

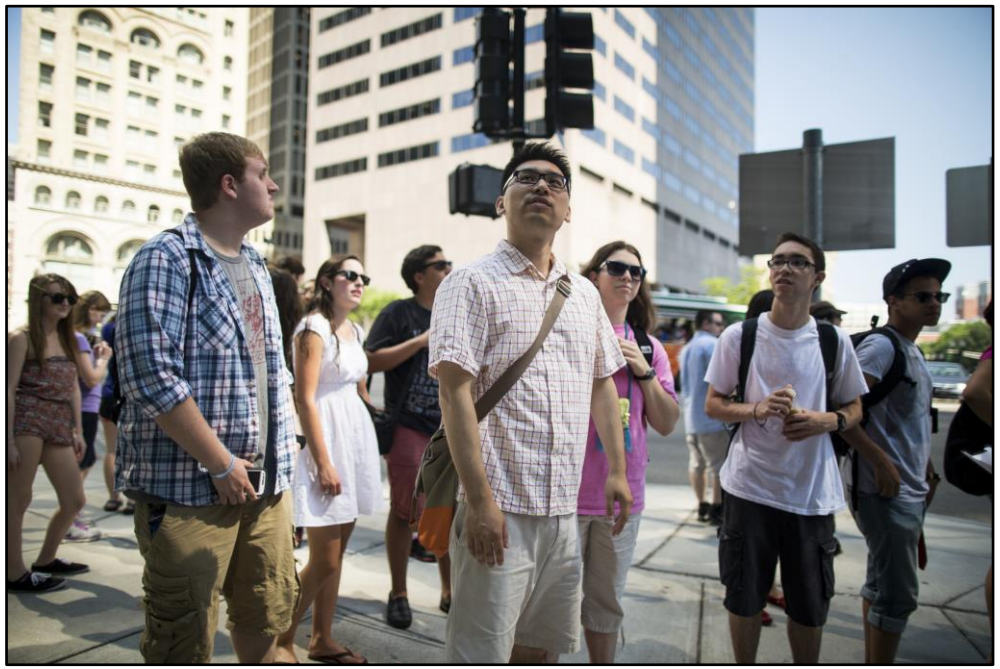
A four-day immersive orientation experience for incoming students to explore systems, structures, places, and populations that define the City of Boston.





Boston's North End

The City as a Vibrant Learning Laboratory



Developing Competency-Based Aspirational Goals

AAC&U's VALUE Rubrics

- Intellectual and Practical Skills
- Personal and Social Responsibility
- Integrative and Applied Learning

Community Practice -- Preparing for ‘Concurrent Learning’

- Inquiry and Analysis
- Critical Thinking
- Creative Thinking
- Oral Communication
- Teamwork
- Problem Solving
- Civic Engagement
- Ethical Reasoning
- Global Learning

Community Practice

95% of what we teach to someone else is retained.

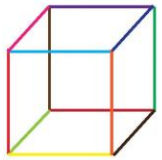
TASK

To plan and make a meal comprised of three courses.

CONCEPT

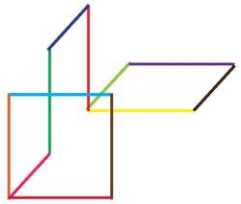
Our meal was an opportunity to apply the conceptual process of deconstructivism. The meal became the vehicle for the concept, rather than the driver of the concept.

Deconsructivism
-to take a traditional form, deconstruct it to its components, and then to re-imagine it in a new form with the same components



1st Course
A traditional california roll

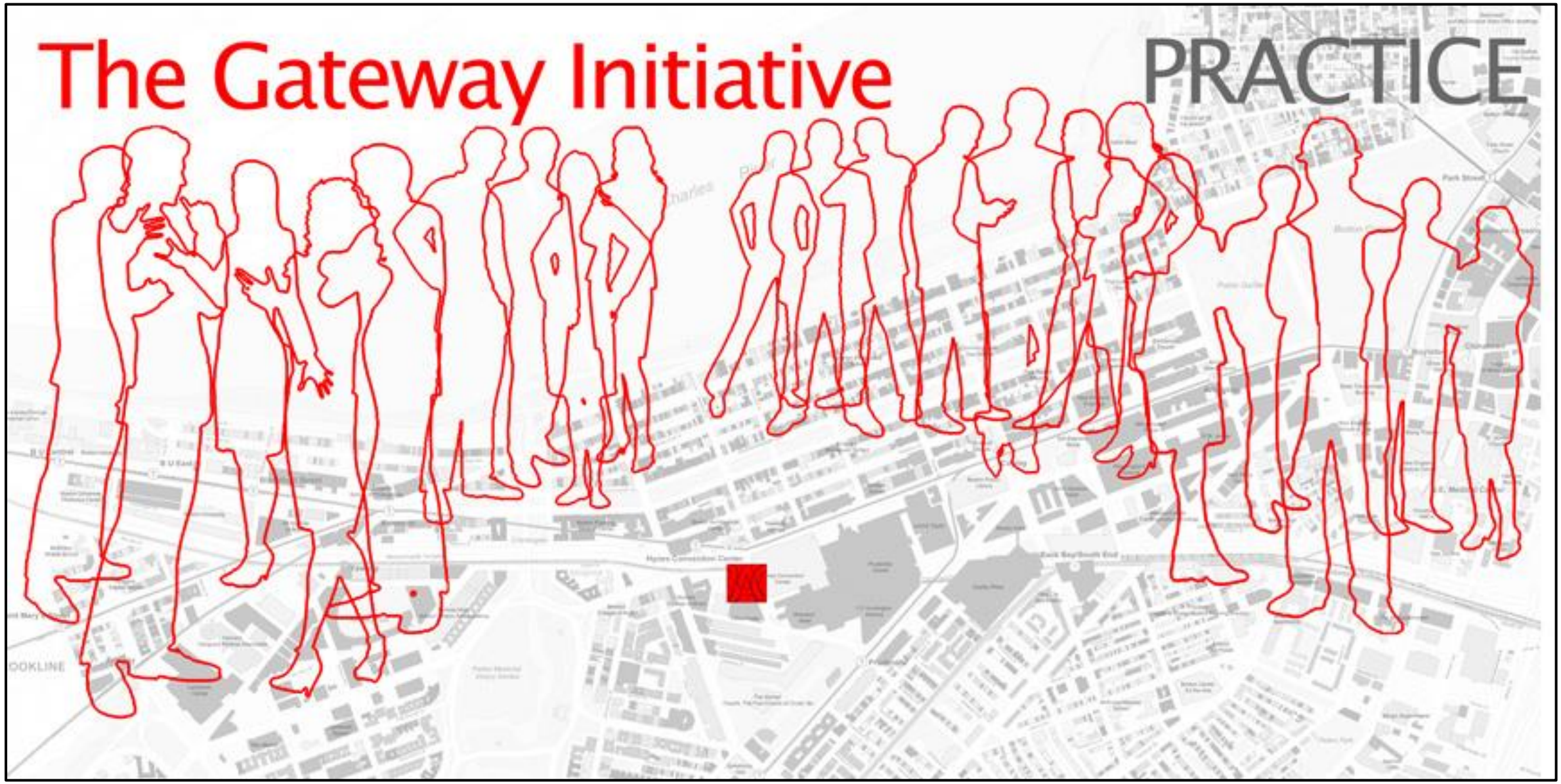
2nd Course
The individual components of the california roll, separated and experienced on their own.



3rd Course
Four different interpretations of re-constructed roll. All with the same ingredients. Each created from the reactions to the experiences of the first two courses.

PROCESS

1. Define concept and rules
2. Shop for components
3. Prepare and taste first two courses
4. Record observations and reflections on first two courses
5. Re-imagine components in new form to create third course
6. Taste and observe third course
7. Reflect on third course and process


The Gateway Initiative
PRACTICE

Learning the “Scripts” of Civic Engagement

NEC

Quality Design Shapes Communities

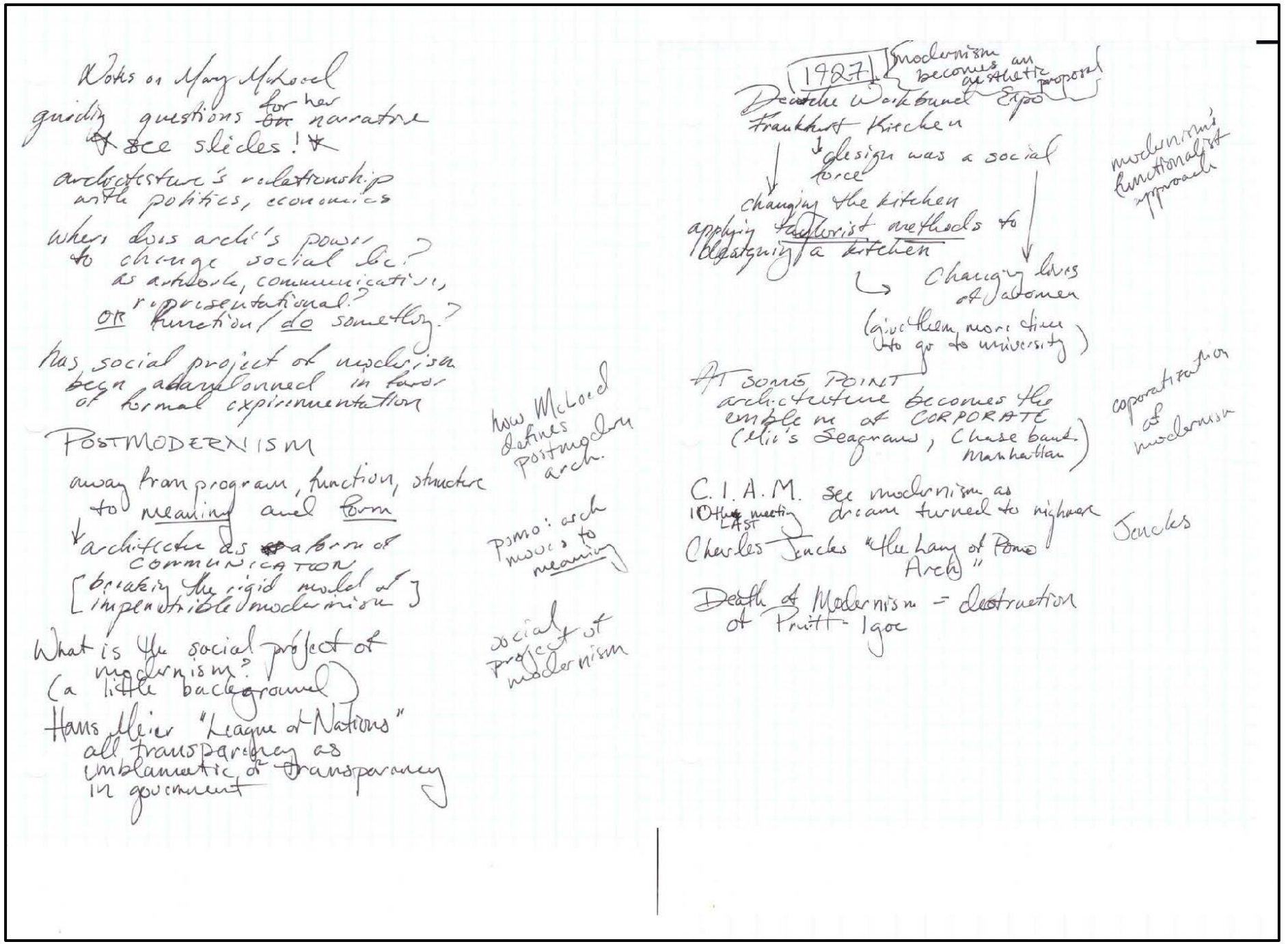
Portfolios Gauge Learning and Stimulate Reflection

When there are "doing devices" available, it is easier to implement learning by doing.

Roger Schank

Portfolios Guide Students to Uncover their own Learning

- Identify the value of what is known
- Document/track the pace of learning
- Establish a set of attainable goals
- Gauge the effectiveness of instruction
- Coach & introduce reflective inquiry
- Mirror the Continuum of Learning
- New information and Experience Change Perception and Understanding.
- Time Stamp Progress



- As learning tools, portfolios are not precious, polished and pristine.
- They do need to have sufficient detail to promote a meaningful conversation.

Practice Assessment and Student Learning Contract: Indexing, Naming leading to better Reminding

	Beginner	Intermediate	Advanced	TOTAL
PRE-DESIGN				
Programming				
Site and Building Analysis				
Project Cost and Feasibility				
Planning and Zoning Regulations				
DESIGN				TOTAL
Schematic Design				
Engineering Systems				
Construction Cost				
Codes and Regulations				
Design Development				
Construction Documents				
Material Selection and Specification				

	Beginner	Intermediate	Advanced	TOTAL
PROJECT MANAGEMENT				
Bidding and Contract Negotiation				
Construction Administration				
Construction Phase: Observation				
General Project Management				
PRACTICE MANAGEMENT				TOTAL
Business Operations				
Leadership and Service				

DESIGN SKILLS

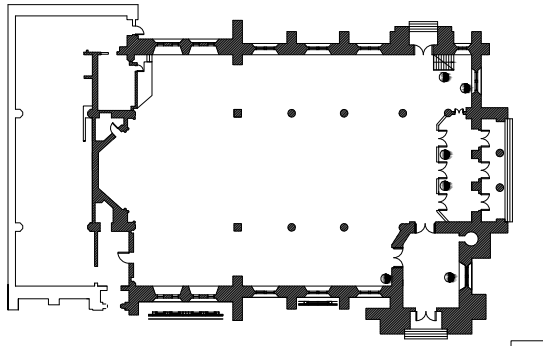
COLLABORATION

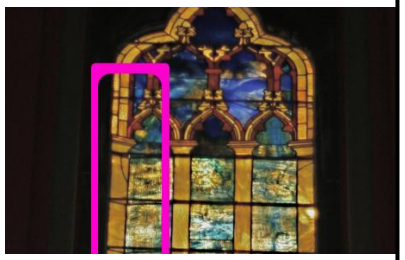
TECHNICAL SKILLS

COMMUNICATION EVALUATION 0

PROFESSIONAL DEVELOPMENT

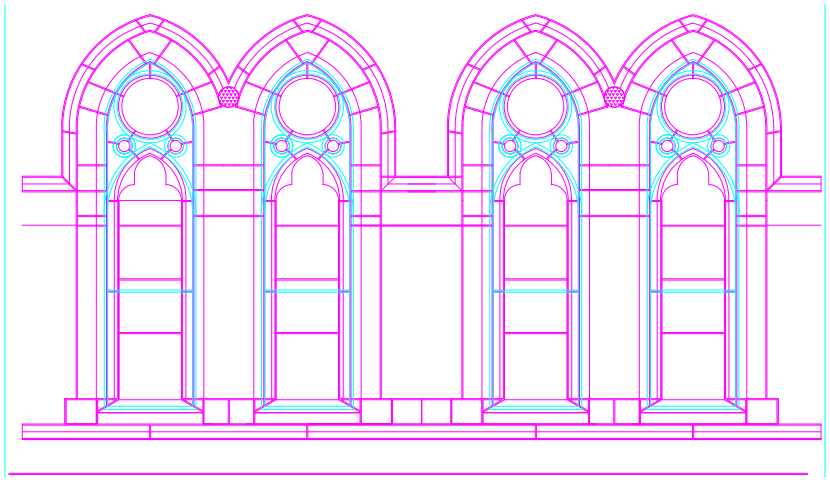
GRAND TOTAL





GREENING THE
CHURCH OF THE COVENANT

On this project I worked with a team of my fellow students researching and de
signing economical solutions to increase building efficiency while also preservin
priceless architectural history.



We performed building performance tests and surveyed conditions, and presente
our finding to the church board along with our suggestions for improvement. The
are currently undergoing renovation to preserve their windows.

I still find it remarkable that I was able to participate with this level of engagement with a multi-faceted and fascinating project within my first semester at the BAC.

Anastasia Lyons, BAC 2014 grad

As you look ahead, what are your goals in practice and in academics? What is your plan for achieving those goals?

My goal is to finish strong for my degree project, I'm really happy with the progress and feel like its truly a culmination of all of my academic and professional experiences.

After I'm finished with school I really hope to kick my professional development into gear as I will be able to focus entirely on my career.

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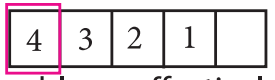
DESIGN SKILLS 

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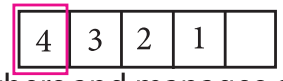
COLLABORATION 

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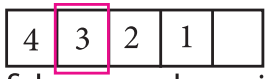
COMMUNICATION SKILLS 

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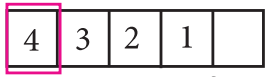
TECHNICAL SKILLS 

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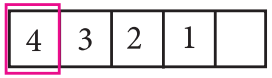
PROFESSIONAL DEVELOPMENT 

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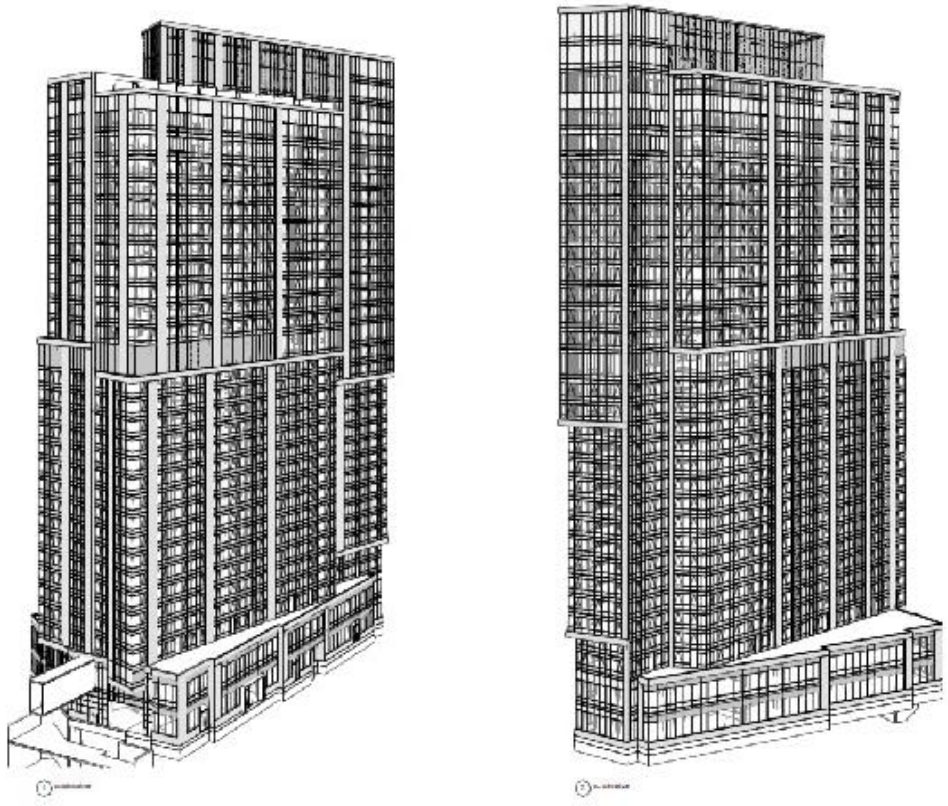
- is punctual, has good attitude
- is engaged in design culture

HOW HAS WORKING ON THIS COLLABORATIVE PROJECT ENHANCED OR CHALLENGED YOUR GROWTH AND LEARNING AS A DESIGNER?

Working with this team has been a great experience for me. I've been able to learn so much. I've been able to work directly with senior architects with a wealth of knowledge. Our project architect has an endless knowledge of buiding systems and details which he is always willing to share. The head designer for the unit layouts has been a great mentor as well.



3D- Perspective of 'The Point'
Facade modeled by me

LEADERSHIP/MANAGEMENT

-I have taken on a more autonomous role at CBT, which involves among other responsibilities really starting to manage my own time and tasks.

-I became the Revit model manager, which requires me to all BIM related issues and coordination, but also assist and direct people working in the Revit model when it comes to best practices and office standards.

-I had the opportunity to direct one of our summer interns this past summer coming up with tasks for him to complete while the PA wasn't around to do so, providing him with direction and ensuring he stayed on tasks with regards to redlining and helping him whenever he had questions.

-I have unnoficially tutored some students at the BAC through physics and Structures courses

-And in general I always try and lend my knowledge of a particular program with people throughout the office whenever the situation presents itself.

CLIENT CORRESPONDENCE

Unit P - Heat Pump Relocation

Kevin Anderson

Sent: Wednesday, October 07, 2015 3:34 PM
To: bbedwell@samuelsre.com; CHARLIE ROLLINS (crollins@samuelsre.com); Chelsea Salvatore [cmccosh@samuelsre.com]; Julie Perlman [jperlman@samuelsre.com]; Lawrence Green (lgreen@samuelsre.com); Matt Davis [mdavis@samuelsre.com]; Stephen Tocci (stocci@samuelsre.com)
Cc: _136122 ThePoint; Rachel Welensky; Emil Gosselin; Adrian LeBuffe
Attachments: Unit P - Heat Pump Relocat~1.pdf (1 MB)

Attached are the options for the heat pump relocation.

Option #1 – We've taken up the existing entry closet to house the heat pump, we lose overall closet storage but are able to maintain the bedroom closet dimension

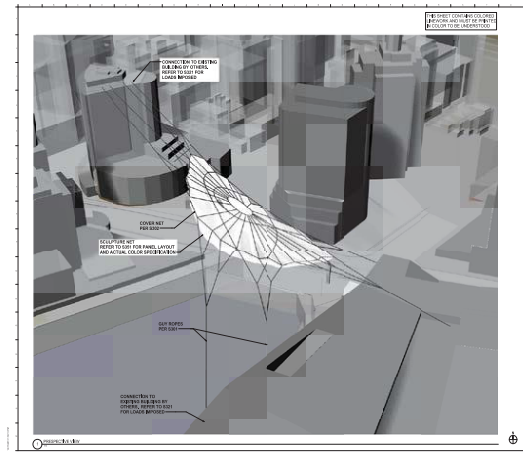
Option#2 – We've taken a piece of the bedroom closet but gain an additional entry/hall closet as well as gain overall storage space from our current layout.

Let us know if you have any questions or concerns regarding either option.

Thank you,

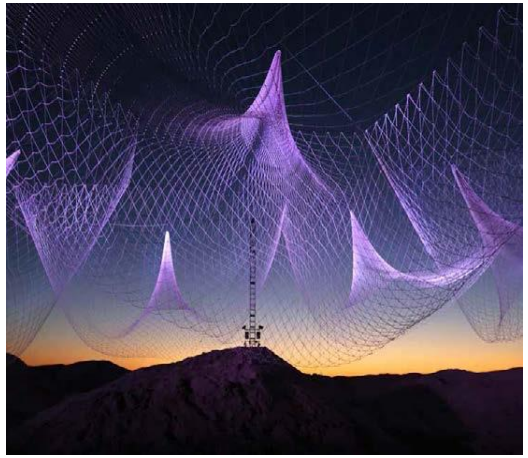
kevin anderson

DANIEL ZEESE
MASTER OF ARCHITECTURE



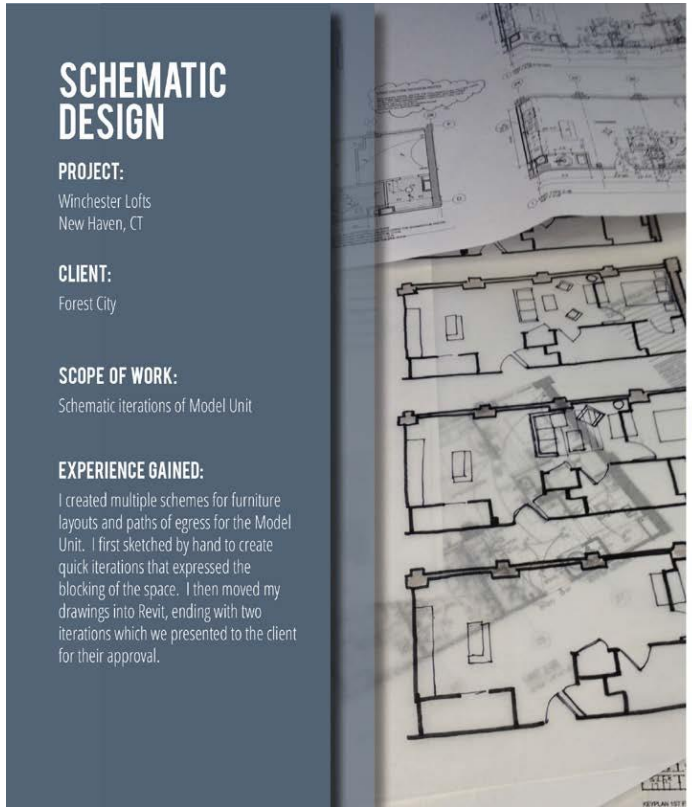
"As the Design Director and Project Manager, I worked directly with Arup Engineers to design what is currently the largest pre-stressed rope structure in existence. We encountered severe limitations with regards to the lateral loads the buildings could handle. Although the sculture only weighed 3,500 lbs., it had a wind load of 250,000 lbs.

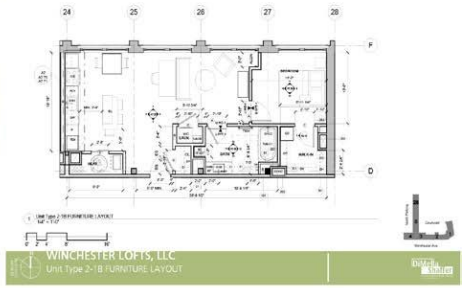
We also worked with Google Data Arts to produce an interactive lighting program in which people can control the plaza lights using smart phones. To design something of this scale, we used Autodesk to develop a custom tool that would model the craft of our structures under the forces of wind and gravity."

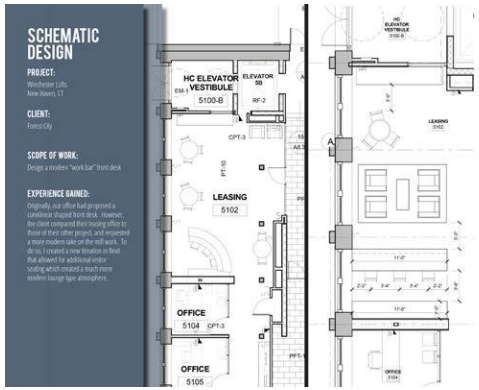


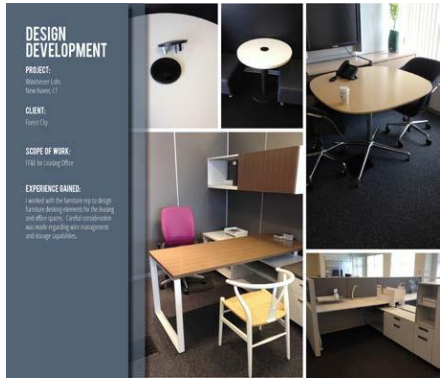
PRACTICE

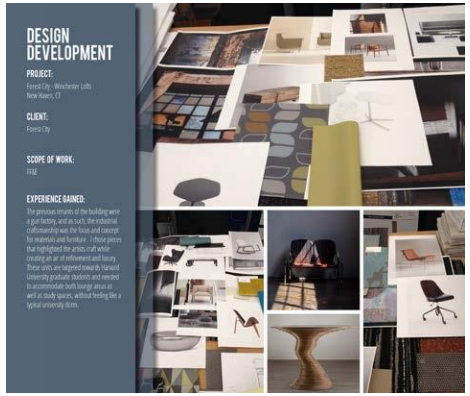
SARAH BOISSELLE
MASTER OF INTERIOR ARCHITECTURE

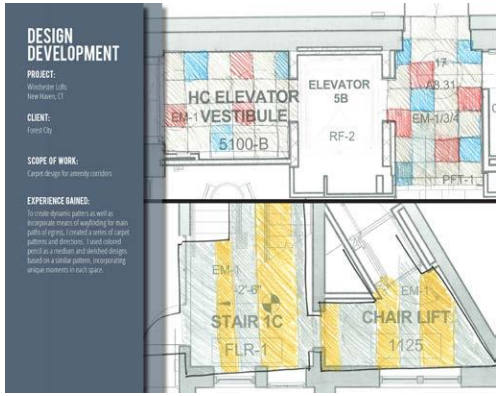










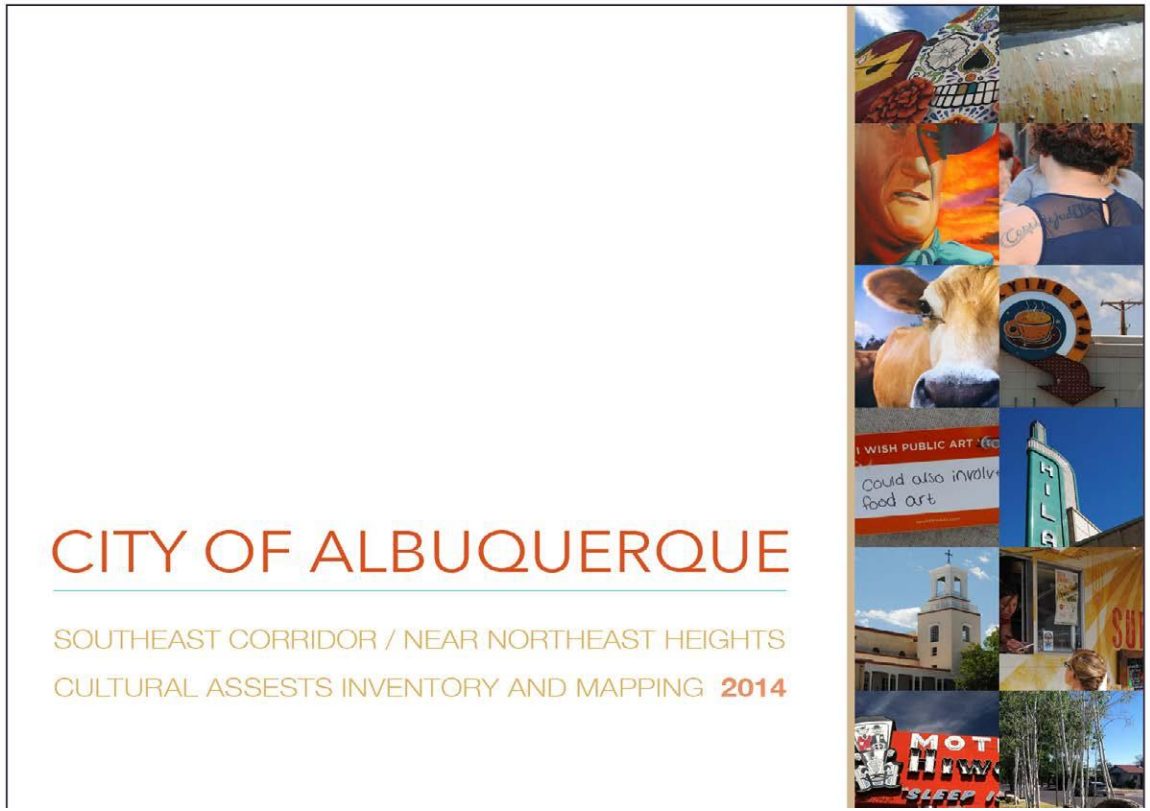


"Four and a half years ago I took a leap of faith. I knew then what I know now. I yearn for a career that affords me the opportunity to utilize design in order to empower community and create healthy environments for people to thrive. I believe a good designer is defined by their willingness to make thoughtful and qualified design decisions while efficiently adapting to constructive criticism. To do so, I remain open to education, whether it be at school, through my mentors at work, and even my peers. I've surrounded myself with professionals who have a like-minded passion for the industry, and believe that some of my greatest successes have come through collaboration.

"Sarah was initially a part-time administrative assistant and part-time interior design assistant. She proved to be such a valuable asset to the project teams she helped that she was soon elevated to a full-time interiors intern. Sarah also unexpectedly been a terrific asset in Marketing initiatives." [DiMella Shaffer]

PRACTICE

ELIZABETH KNOTT
MASTER OF LANDSCAPE ARCHITECTURE

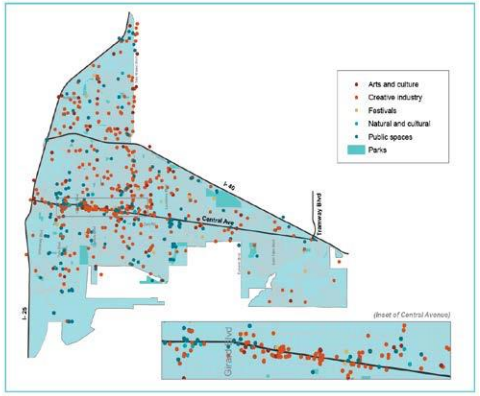


Historical Look at the Project Area

Introduction

Albuquerque has a long history of being a land of abundant opportunity. From its first recorded inhabitants over 10,000 years ago to today's dynamic multi-cultural community, Albuquerque has held enormous attraction and amenity for those who have called it "home."

The story of the city's settlement is peppered with attempts to possess its lands by those who coveted its bounties. The fertile land near the Rio Grande, its Bosque, El Camino Real de Tierra Adentro, the clement weather, and of course the vast stretches of open land perfect for cattle grazing, and later, suburban development — all were attractive and valuable assets to those who sought control. From the migratory Paleo Indians to Mexican rule, Spanish colonization to eventual United States statehood, Albuquerque has captivated millions not only by its beauty but also by the fortunes to be found here.



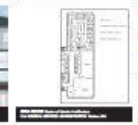
"My biggest accomplishment in terms of learning and growth since my last assessment is that I have begun to receive recognition for my skills as a designer and have been sought out by the three entities with which I now work. Having viewed my enhanced skills and abilities as an added value to the projects that they are working on, I am thrilled to be working for three very different design initiatives, learning distinct applications of design theory and application across dramatically different fields. I believe one of the greatest area of growth is in regards to conducting zoning and conservation research, packing CD sets and doing even more schematic design beyond early conceptual design.

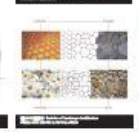
"Libby is one of three Lead Gardeners for Parterre's Chatham Office As a Lead Gardner, she is responsible for coordinating and carrying out comprehensive and often complex garden installations, maintenance and troubleshooting at client properties." [Parterre Garden Service, Inc.]

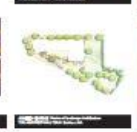
Original graphic used in Northeast Heights inventory.

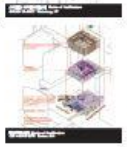
PRACTICE

The introduction of Practice examiners as adjunct instructors enables standardized and calibrated review of portfolio evidence and student performance









PRACTICE

EXCELLENCE IN THE FIELD

RAC 2015 graduates exemplify the promise of an enriched design education through applied learning in diverse professional work settings. A taste of the breadth of work and variety of opportunities may be seen here. With support from practitioners, mentors, and educators, accomplished RAC graduates demonstrate the ever-expanding field in which we situate and evaluate "design practice."

*** denotes student progress with distinction

When considering the use of reflective portfolios, remember that students appreciate:

- A very structured approach (template) when they first start out, but as they become more comfortable with the concepts and the use of more sophisticate software, they tend to want more control over look and feel;
- Provide initial samples of portfolios, e-portfolios and reflective sketchbooks required;
- Clear expectations and criteria for the tasks;
- Integration of portfolio and reflective sketchbooks to help them see their assessment tasks as value-added exercises, rather than just another assignment to complete; and
- Recognition of the amount of time and detail required by portfolio and reflective sketchbooks. Portfolio development, in particular, may take a considerable amount of time and students appreciate this being recognized in the time allocated for the task and the awarding of the final grade.

Harris, K-L, K., Gleeson, D., Peat, M., Taylor, C. & Garnett, R. (2007) Enhancing Assessment in the Biological Sciences: Ideas and resources for university educators. Available at: www.bioassess.edu.au

Thank You