

The blizzard of decision-making and construction was at times enjoyable, fun, challenging, daunting, and stimulating. As things come to a close, students, faculty, and TA all agreed that our final week together was the perfect time to reflect on the design and construction process, how our own design ideologies informed the final outcome, and what this project has meant to us as students and designers. We present this book for your enjoyment and to remind all creators reading this to have fun and trust the process.

We extend our sincerest gratitude to all who have helped and supported this project, and to all those who visited during construction or passed by with a thumbs up. We would also like to personally thank our TA: the fearless leader, super-mom, popsicle-bringer, and human karaoke machine Carolyn Lowell. Without your help and guidance, we really could not have come as far as we did.

> HOWARD LAROSSE JOSEPH CONNELEY ROBERT PERRY JAMIE COSTELLO LUCINDA BLISS MATT THE BOBCAT JOHN THE JACKHAMMER PAUL HAJIAN PATTI SEITZ MEG HICKEY KEN HARTL REID DRUM TLC MASONRY SUPPLY

What is Community Build?

Established in 2009, the MassArt Community Build Program brings together graduate students and community-based partners for small design projects that are completed over the course of one summer. Through teamwork, research, and advocacy, the program provides opportunities for students and communities to work together through all stages of design and construction.

As an art school, the MassArt Community Build program offers a unique interdicsiplinary approach to building and designing involving students and faculty from majors across the college.

Past projects include the Somerville Community Growing Center, the Community Greenhouse in Dorchester, and the Pavilion on Biodiversity at the Peabody Essex Museum, while this year's project is focused on dealing with accesability and equity on the MassArt campus.

EXISTING SITE

GABION WALL

MODULAR BENCH

TAKEAWAYS

APPENDIX



Danielle Pinette - M.Arch Candidate '22



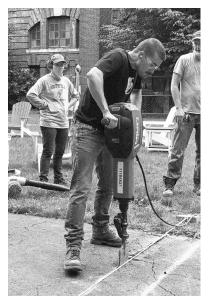
Community build is at the core of MassArt's M.Arch program. It is designated the same amount of credits as our graduate Thesis, as it ties together design, technical knowledge, project management, and construction. I began my M.Arch program during Covid-19, I am thankful for this project being on campus this year as it has allowed me to gain an deeper connection to MassArt. Playing role as designer, builder, and end user has opened my perspective on the impact of design.

It was interesting to approach this project as someone who had often visited the courtyard as an undergraduate student. It was important that our team addressed the student body, especially considering the project would be completed before most of the students were back to campus. In thinking deeply about the existing culture of the courtyard, our team saw evidence of communal gathering, individual introspection, art-making and art display, as well as the courtyard's role as a getaway from the busyness of the city. Continuously bringing this to the table resulted in a large range of gathering options and atmospheres on a small site with a small kit of parts.

Drew Ton-Morrison - M.Arch Candidate '22



Cal Bingham - M.Arch Candidate '22



Juan Gomez - M.Arch Candidate '22

The Community Build program was a large part of why I decided to pursue my M.Arch degree at MassArt. I wanted to study in an environment that values community engagement and enables students to learn by doing. This summer semester spent on this Community Build project was invaluable to me as it taught me not just about the intricacies of a project from start to finish but more importantly it taught me about myself. I now feel much more confident in my communication skills, design acumen, and skills as an architectural designer.

The project was a very valuable learning experience. At the beginning I thought that the construction process was going to be simple. But I learned that even small projects like ours can have their own challenges. In that order of ideas, I learned about the different stages and variables that can influence an architectural project. I broaden my knowledge about construction, materials and how to operate machinery, such as jack hammer, ditch witch and plate compactor. Lastly, I was able to apply what I had learned in previous classes, such as drawing details, building with wood and my interest in building systems.



Paul Paturzo - Associate Professor



Seth Wiseman - Assistant Professor

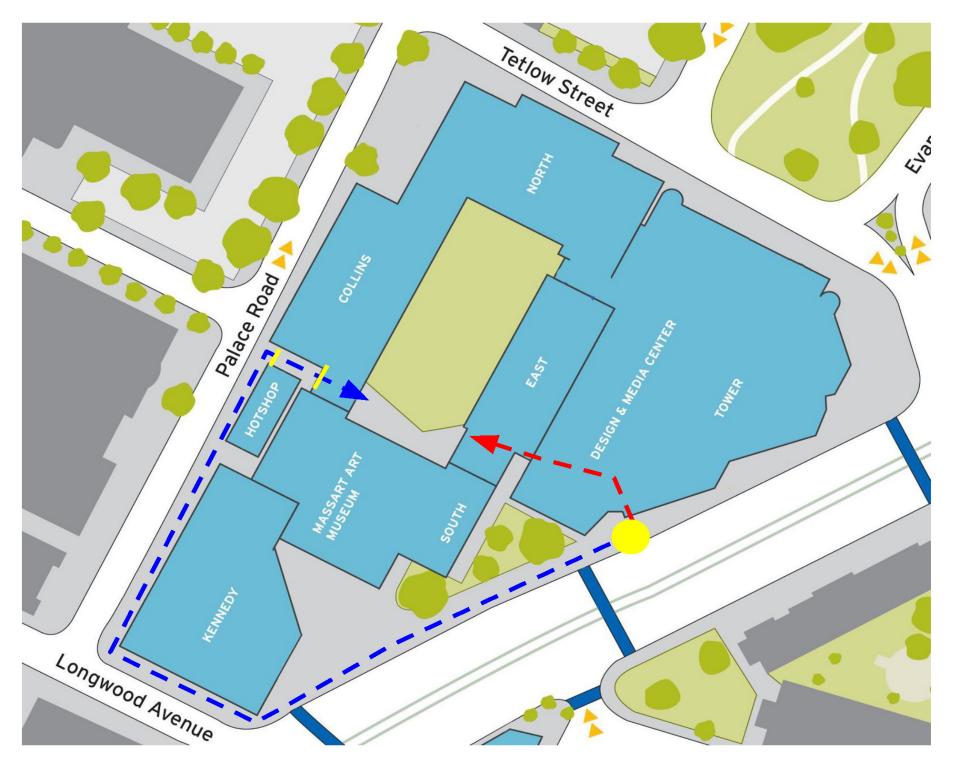


Carolyn Lowell - M.Arch '21 Candidate + TA



PROJECT BRIEF

Our team was charged with addressing both practical and conceptual design improvements to the handicap ramp in the courtyard that included evaluating drainage problems and developing a design strategy that aligned with MassArt's Strategic Plan. Students led the refinement of the design brief and identified the need to integrate the ramp with a sense of place, protect the culture of the courtyard and take inspiration from the grit of an outdoor making space. Throughout the project, every team member preserved the idea of equal access and community engagement.



ACCESIBILITY + EQUITY

Perspective: You use a wheelchair. You have plans to hangout with your friends in the courtyard, you and your friends arrive at the main entrance of campus, the Design Media Center (DMC), where your friends get to pass through the hallway and straight down the stairs into the courtyard. However, you must take an alternate route. After waiting several minutes for a member of campus security, you are escorted a quarter-mile around campus to the accessible entrance. The handicap accessible entrance is also a utility loading area and requires a public safety officer to open it therefore a person who requires a ramp for mobility loses their autonomy as they navigate this part of our campus.

Compliance does not equal Equity. Initially our team was tasked with bringing the ramp to the courtyard up to compliance; however, after further examination and referencing the 2011 ADA Audit it was determined that the ramp itself was in compliance except for the bottom landing. Although there was a previous attempt to bring the landing into compliance there was still an issue of ponding that needed to be addressed. In addition to addressing the landing compliance, we decided to focus our efforts to create a gathering space and bring focus to the ramp as a symbol of equity.

In order to create a more equitable experience, we considered wayfinding options to make the path from the main entrance of MassArt, The Digital Media Center, to the back gate to access the ramp of the courtyard clearer. Unfortunately the only way to an ADA accessible ramp is to go outside and around the MassArt campus.

Solution: Compliance versus Equity. In the future, we wish to implement spray painted signage onto the route around the campus, to enhance the experience one would have accessing the courtyard space.



EXISTING SITE + DESIGN OPPORTUNITIES

DESIGN OPPORTUNITIES

The decaying state was the aspect of the courtyard to which we had the most palpable experience. Our team found this decay, however, charming and unique to the courtyard which has acted as students' back yard in which they create works of art.

Several opportunities to create a gathering space were identified, namely in the overgrown space below the existing Flowering Lilac tree which we quickly named "the grotto" and in front of the ramp where we found ourselves gathering to talk about our designs.

Compliance issues with the staircase and ramp themselves were also identified, mainly at the landing of the ramp which ends in a puddle and the last tread of the stairs which ends in a 4" raised asphalt pour. We assume that this was poured to fix the sinking ground. To remedy this, we decided that demolishing the sinking asphalt and leveling the area with compacted stone dust would mitigate the transition between surfaces and bringing the area up to ADA accessibility standards.

To enhance the already existing sculpture garden throughout the courtyard, we cleanned the existing space in preparation for future sculpture displays to happen organically.



DESIGN PRINCIPLES

Equity
Culture of the Courtyard
Decay & Renewal
Building Systems

Cal: Decay and growth piqued my interest as natural life was finding a way through the cracks in human-made materials. This "life from decay" theme stayed with me throughout the design process and is exemplified in our porous stone dust ground as well as our gabion rock bench.





Drew: The existing layout of the courtyard elicits two conditions of use; to observe or be observed. The many windows and majors surrounding the courtyard put everything in the main space on display, which cements its uses as a sculpture park and a very public gathering space. There are also twoperson perimeter benches which allow small groups to sit on the periphery and observe. We felt that these conditions could be intensified by creating small spaces that cater to both large and small groups.

Juan: Building systems and parametric architecture have been of great interest for me and I saw this in multiple features of the courtyard. I constantly found myself admiring its brick walls, and thinking of how individual elements like this could be put together to create beautiful facades, details, patterns and rhythms. Also, I found a beautiful and abstract mosaic of gray tiles at the bottom of the fountains (right picture), which reinforced this idea of implementing individual elements as a building system for the project.





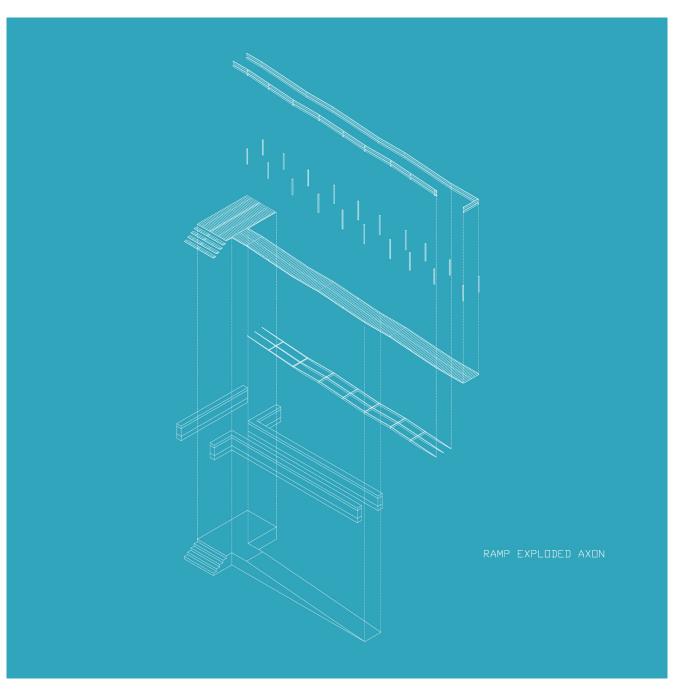
Danielle: Ramps are often seen as an afterthought to meet ADA compliance, instead of a means to bring equity to the space. Everyone deserves to have the same experience throughout a space, instead of preference being given to those who are able to navigate stairs. This mindset guided my early design input.

DESIGN

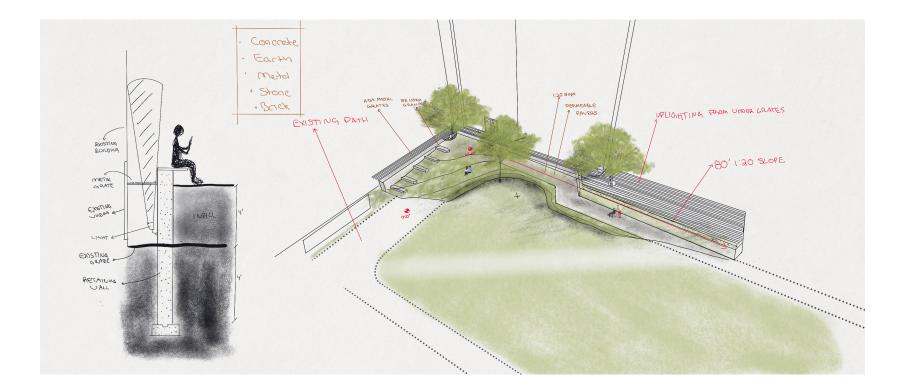
After discussing our varied experiences in and around the courtyard, as well as considering the importance of MassArt's single greenspace to the community at large, we prioritized reciprocity as a key design element as we entered the concept process and began negotiating the project constraints.

Through our conversations, we elected to borrow a portion of the green space in an effort to make a welcoming intervention through a series of gathering spaces next to the stairs and the landing. We complemented them by designing a mix of fixed and modular movable benches, arranged in a cross-talk setting, where people could find a place to gather or transition before exiting or arriving at the courtyard.

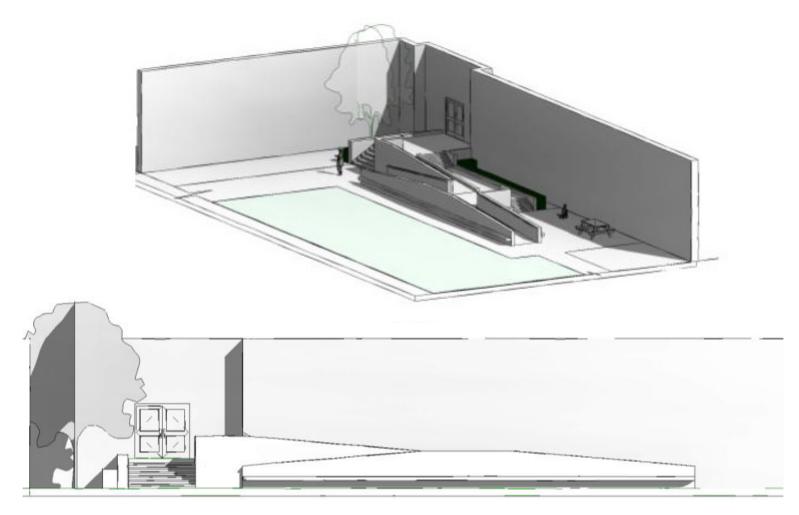




Drew's initial idea was to create a wooden skeleton to add over the ramp in order to make it compliant.



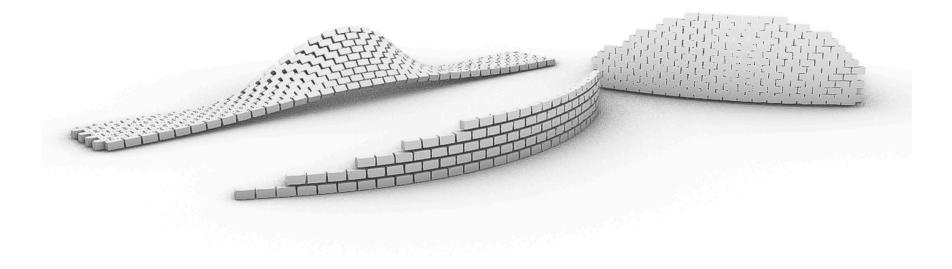
Cal's initial idea was to demolish the ramp and terraform the earth up to meet the entrance which was 4' above grade while adding in a retaining wall with seating and uplighting to illuminate the existing building.



Danielle's initial design idea was to create equal access to the paths - wherever stairs can take you so can a ramp.



Juan's initial idea was to rebuild the ramp and the stairs next to each other, to make more equitable and inclusive access for people with disabilities. Also, he proposed to terraform the terrain, to maximize the usage of the space and to create a more gradual transition to access the courtyard. Lastly, he proposed to integrate gathering spaces around the ramp and the stairs that could make a more welcoming access where people could stop, rest, socialize, have lunch or work.





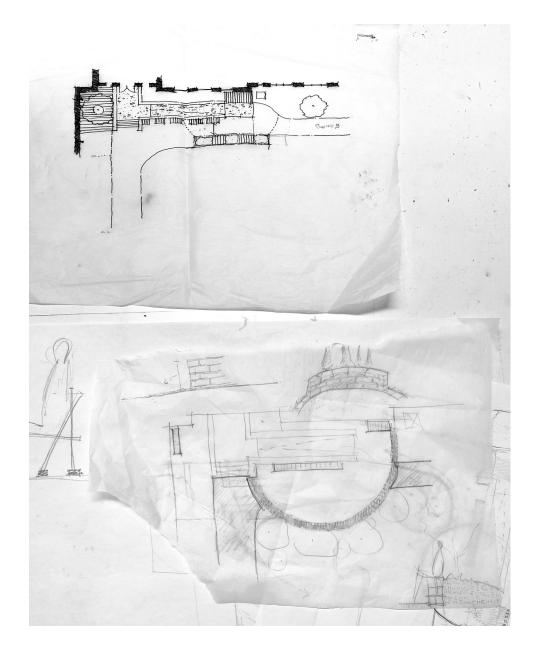
THE RIBBON

As our team explored connecting the ramp and stair landing we kept coming back to the idea of a "ribbon" in the landscape that would tie the space together. The ribbon developed and began to serve as a wall, material transition in the existing path, and an edge between the lawn and the path. We were able to integrate it with the existing rectilinear order of the courtyard at its resolution while freeing it into a serpentine form where it engages the open space. Pictured here are early iterations of masonry ribbons that would start as a path, then find their way up to become a low wall and bench. These were vital in our understanding of masonry and the types of substrate needed to support such a system.

PROCESS

As a small class, we quickly formed a team and identified each student's strengths and interests. Throughout each phase of design, we measured our ideas against our skills, budget, and project deadlines. The team agreed to a narrow scope of work which allowed us more time to investigate the design and construction methodology.

Our design iterations were always centered upon creating an equitable space in front of the ramp and to the left in the grotto.







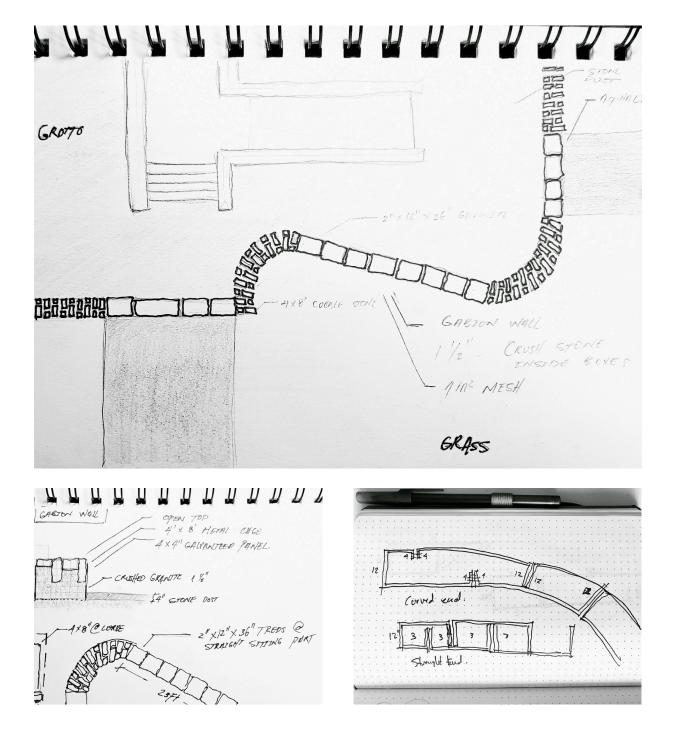


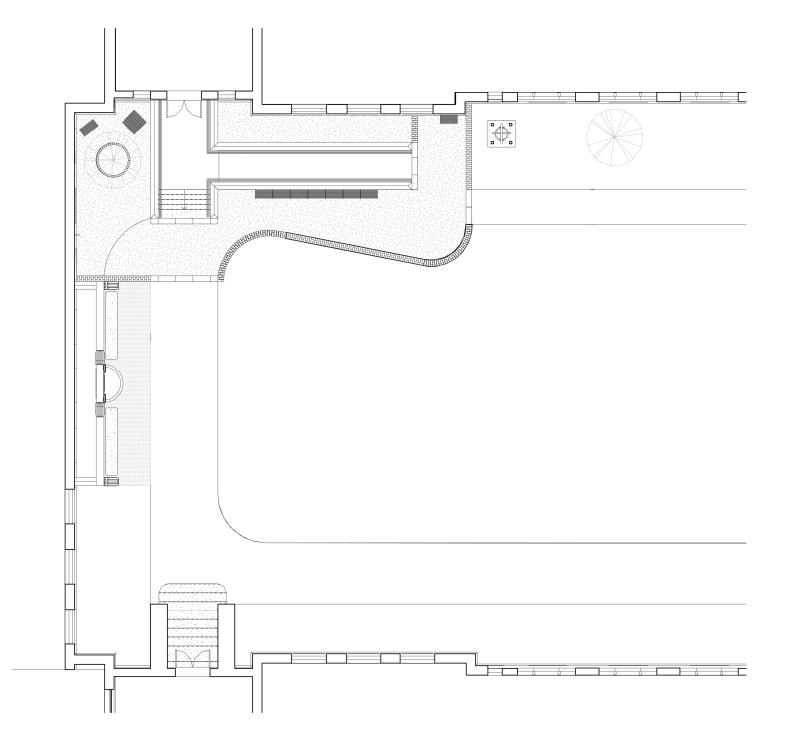
Our first iterations reflect a linear path of travel while the later iterations reflect a flowing, curved language.

We went through many iterations until we landed on one that answered everybody's questions. We would create a serpentine "ribbon" of cobbles that stretch along the courtyard, reach slightly out into the courtyard to provide a seating nook before diving back into the original path of the existing asphalt walkway.

To create a smooth transition, we placed smooth granite treads at all surface where wheels roll over a differene in material.

Reflected on the right-hand page is our final site plan which illustrates the material palette as well as the site geometry.





GABION WALL

While sourcing materials for our gabion wall, we decided to go with off the shelf products that were easy to find in Massachusetts.

The gabion wall shell was constructed using galvanized livestock fencing and wire mesh. The livestock fencing gave the wall the structure it needed while the mesh held the ³/₄" crushed granite. We chose both of these materials because they would be resistant to decay and be easy to source and manipulate.

We decided to fill the gabion with ³/₄" crushed granite (and other large rocks that we did not want to haul away) to achieve the aesthetic we were aiming for as well as to allow proper drainage. Originally, we were going to top the straight section of the gabian with granite treads while the curve section would be topped with granite cobbles. However, after seeing the finished construction, we determined the granite treads did not achieve our goal and decided to replace them with granite cobbles. We did find an alternate use for the treads elsewhere on the site.

We did have a valuable lesson in specifying and ordering stones. Since we were working with a local supplier, we made an assumption that our granite would be sourced locally. However, that came into question when talking to the local delivery person, it was suggested that our granite cobbles came from India and our granite treads came from China, potentially with unethical work practices. Upon follow up with the company we found that. (waiting to hear back) Overall, we now know to question where a supplier is sourcing materials prior to installation.

In order to complement the utilitarian nature of the courtyard, we used readilyavailable materials however we applied them in unique ways.



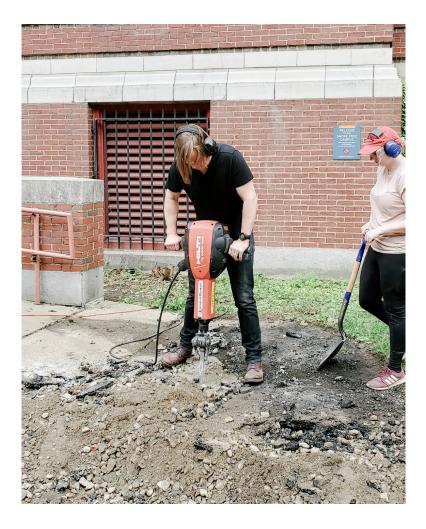
DEMOLITION

As designers we are used to sitting by a computer writing specifications. This process definitely taught us the ramifications of those specifications, especially when it comes to replacing walking surfaces. After a few hours of trying to pry up asphalt with found objects and a pickaxe (Spoiler Alert: we didn't get very far), we were grateful for Howie and his team stepping in to lend a hand and provide guidance. With John showing us how to use a jackhammer and Matt lending his bobcat skills, we were able to remove the asphalt in an afternoon

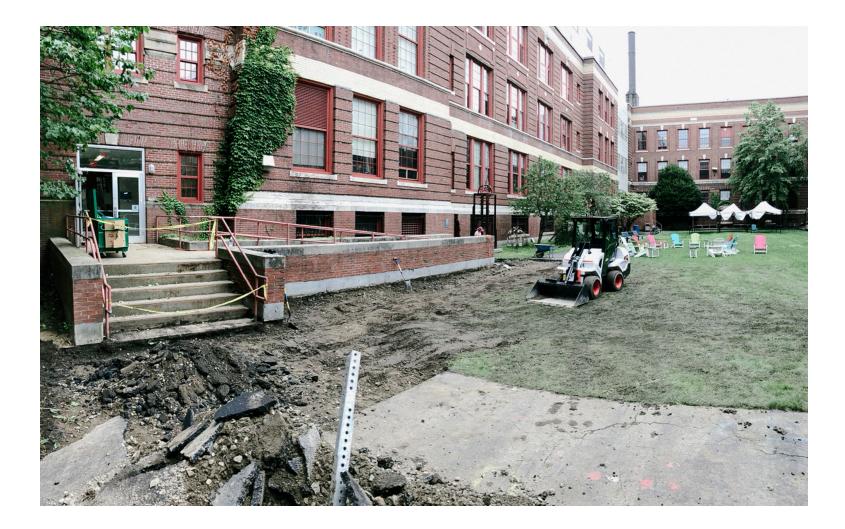
In addition, we spent several days digging out tree stubs and removing various rubbish from the site.













CONSTRUCTION

Just as with the demolition, we learned the true ramifications of our designs and the importance of clear drawings and instructions during the construction phase. We gained an appreciation for trades people, and the TLC delivery driver who made countless trips to deliver us stone, especially when due to an error estimating we were short just a few (over one-hundred) cobblestones and they graciously made the trip back the next morning. We now understand the high cost of design changes once in the construction phase, it's not just updating a revit model, on site changes require valuable resources such as time, material, and labor. However, it has also taught us the importance of flexibility and quick problem solving on a job site.

For example, we changed our entire wall system after digging a trench. Originally, we were going to build a wet-set cobblestone wall which would require a foundation. After seeing the conditions of the soil, the amount of debris present, and discovering the water table at the bottom of the trench, we changed directions and moved to a wall assembly that would allow for movement during freeze-thaw cycles and not require a full foundation. We determined that using gravel (in a gabion system) as a primary material allowed us to achieve the final finish we were looking for and allowed for proper drainage. As a result we filled the trench, and moved on

In efforts to remedy existing ponding and create a compliant surface, we put a lot of effort into regrading the area with layers of dense grade, gravel, and stone dust. For compaction, we used both a gas-powered compactor to compact the sublayers and hand stampers to compact and achieve the final finish.

We constructed the gabion wall shell using livestock fencing and wire mesh. The livestock fencing gave the wall the structure it needed while the mesh held the ³/₄" crushed granite in. We utilized the brake in the metal shop to bend the livestock fencing so the panels could be fastened together with ease. After the gabion wall was assembled, and the final walking surface was achieved, we headed to the Woodshop to construct the benches. We designed the benches to be constructed with minimal cuts, and utilized jigs to be able to construct all of the benches quickly.

Overall, the construction process was a learning experience for all of us. We now have a surface level understanding of a few trades and will be much more conscious of them while designing.

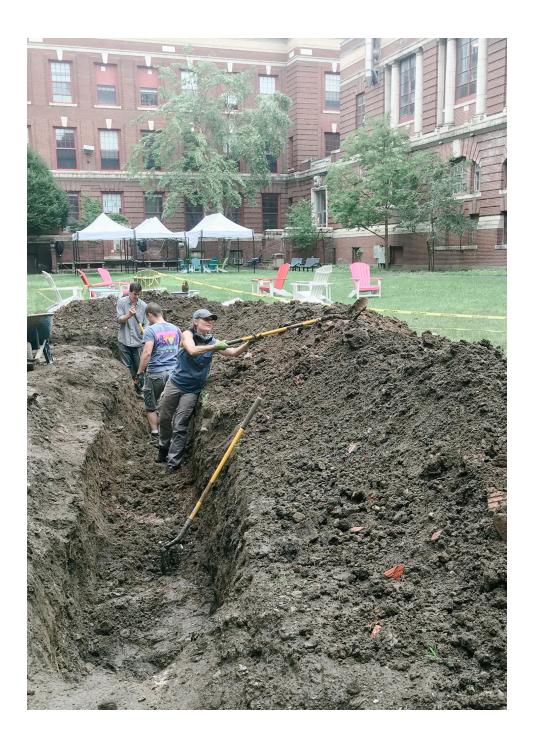




It was all fun and games with the Ditch Witch...



... until we got it stuck in a ditch.





Left: The team digs a four-foot deep traench by hand.

Right: The group poses for a quick photo mid-dig. Not pictured: puddles in between Juan, Carolyn, and Cal on the right.







DESIGN IN THE FIELD

While somewhat atypical to the architectural design process, because we were building and designing we often found ourselves "going back to the drawing board" — literally. At times we found that our early drawings either did not manifest themselves in a form cohesive to our design intents, or there were unforeseen complications and implications of using a certain system. During these invaluable exchanges around a sketchbook in the field, we explored material connections, large design changes, methods of building, and more. A sketchbook alone was not always sufficient, so we often resorted to "playing" with materials in the field. This way of designing resulted in an artful approach to material and simple systems imbued with craft and intent.















Meg Hickey, our structural engineer, approves of our wall.



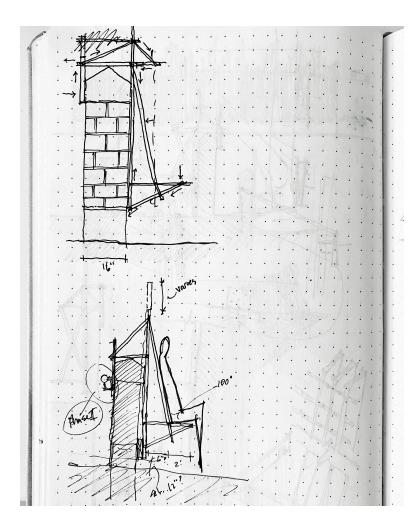
MODULAR BENCH

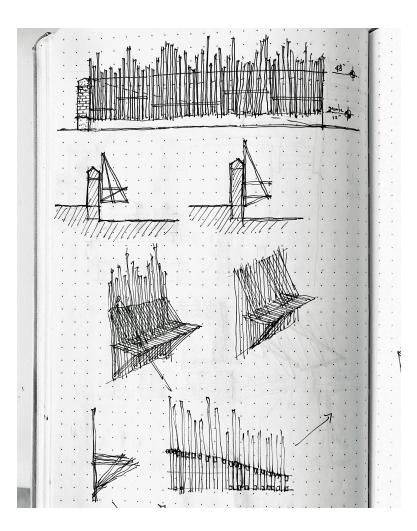
By using a stacked system of red cedar balusters we created modular benches to consolidate gathering spaces, but at the same time to accommodate students' varied needs around the courtyard. The benches are comprised of 19 horizontal pieces of 36", 12 horizontal pieces of 18" and 4 vertical balusters of 16". Considering the ideals of sustainability and efficient usage of wood, the balusters required limited cuts to create the finished modules. Very little material was wasted in creating these benches, aside from pieces that arrived damaged or became damaged in the construction process.

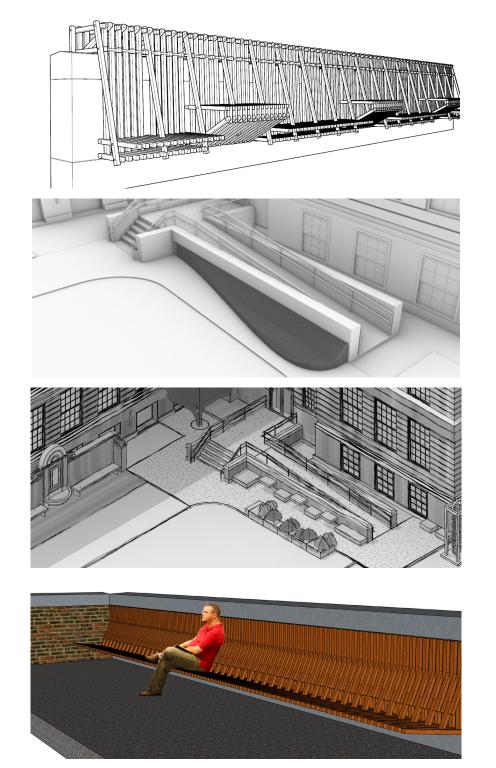
MATERIAL INVESTIGATION

From the outset of the project, we envisioned using red cedar balusters due to its availability, economic value, natural rot resistant properties, and because of its beautiful gray color after weathered. However, the experience of having to design and build the project allowed us to experiment and decide with assurance, that cedar was the right type of wood, due to its easy workability, something that fit perfectly to our given time and skills constraints.



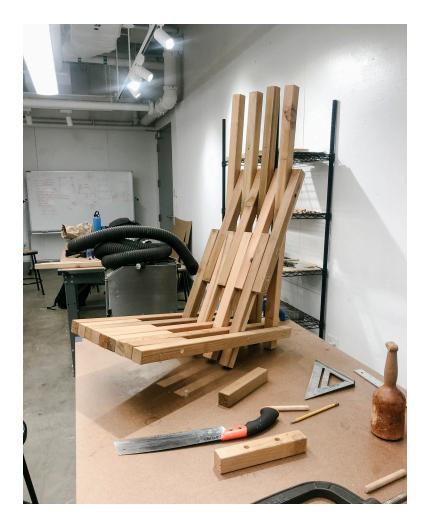




















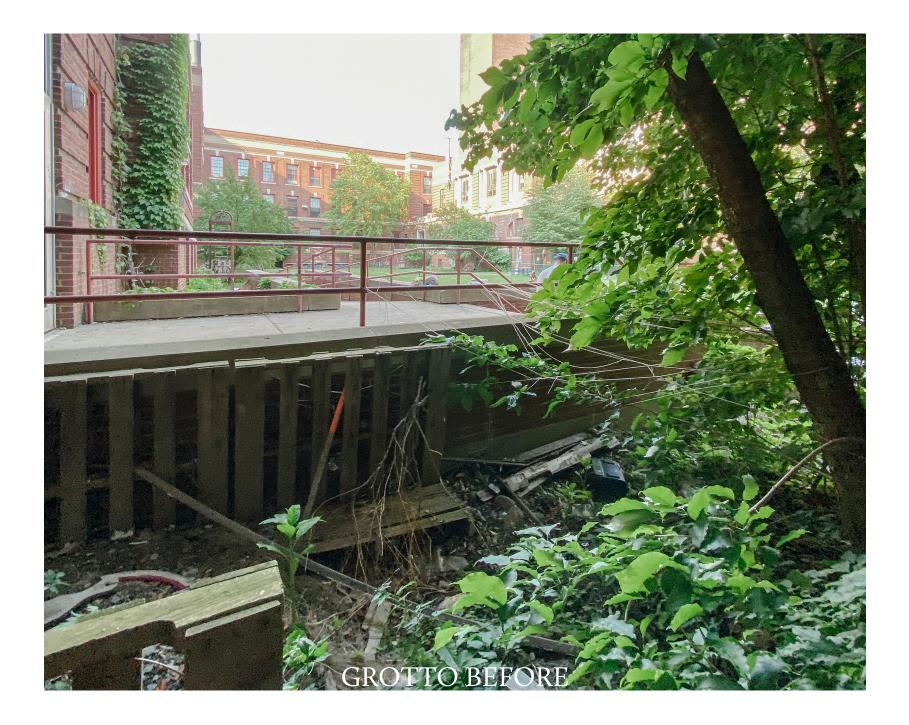
BACK TO THE DRAWING BOARD

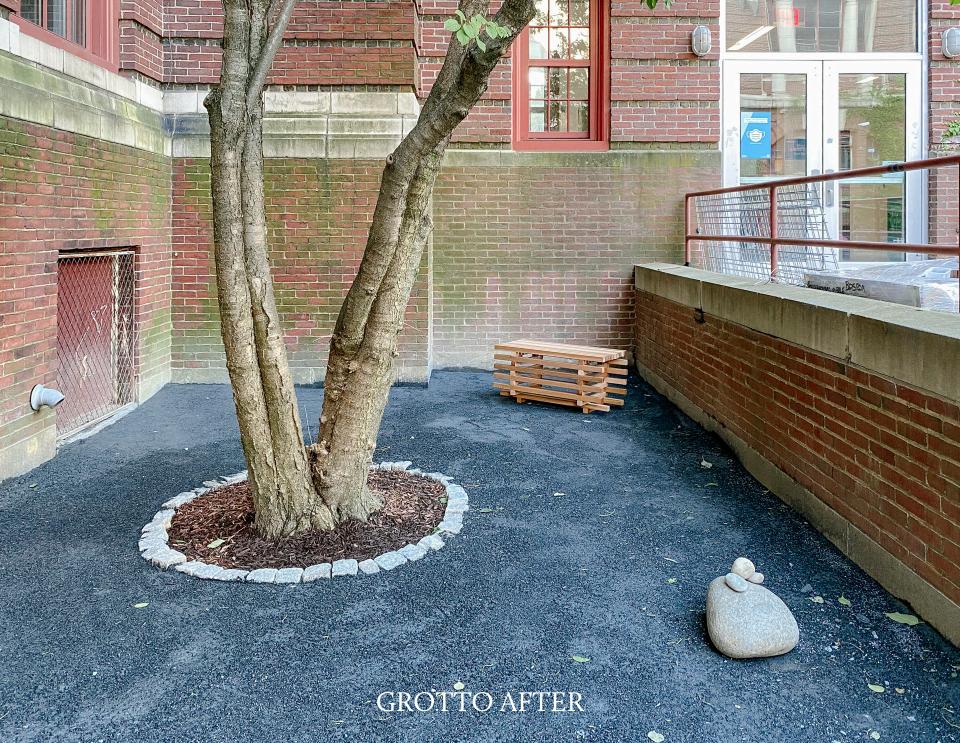
There was some concern about the structural integrity of the bench as we designed it so we stress tested it. This test determined that it in fact was not structurally sound as you may observe in the photo on the left.

This brought us back once again to the drawing board where we essentialy turned the assembly onto its side and stacked up the wood balusters to create small modular benches that resemble lanterns. The hope is to illuminate them at night with an integrated in-ground LED.













CONCLUSION

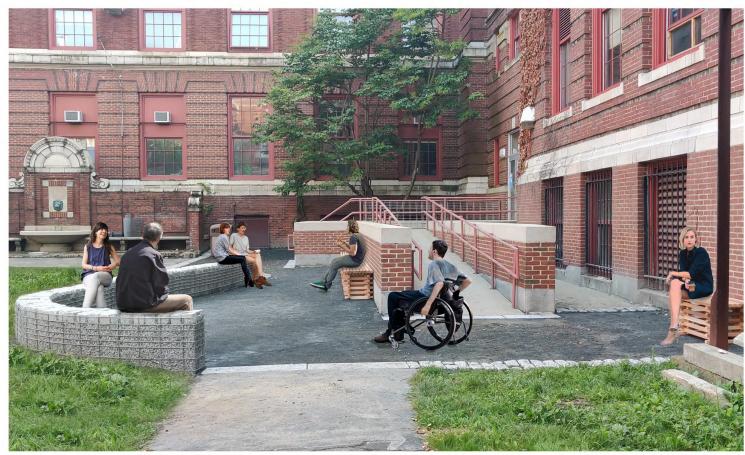
This project and its wide-open scope resulted in an interesting group dynamic. Early on, we brought separate ideas to the table and would typically leave it at that. Good ideas, but no consensus. As the timeline began to beg for results, we shifted to roundtable discussions at every point and did not look back. While our consensus-driven design could be frustrating at times and cause our design proposal to change, we quickly learned to measure ideas against principles and build on them rather than discard and start over. It is only through this group dynamic that we have been able to hold ideas from week one through to the final design and maintain the importance of equal access, courtyard culture, systems-thinking, and abstract design ideologies.

We loved working on campus, as it embodied the "for students, by students" approach that many students ask for but rarely receive. Howie and the facilities staff were great to work with and excited about our design; our administrative clients would often come visit the site and encourage us; the architecture faculty gave fruitful and much-needed perspective to our design process; other faculty on campus were incredible, showing us metal bending and plasma cutting, or letting us use chop saws and facilities; and our very understanding teachers and TA would dive head-first into our design, even if they knew that the design would end up changing a week later.

We are very thankful that the school has trusted our department to undertake such a valuable piece of campus, and we hope that with the implementation of some wayfinding, our design will embody the mission of MassArt as an inclusive, artful, and creative campus of makers.

APPENDIX

MASSART COURTYARD RAMP & GATHERING PLACE DESIGN PROPOSAL



Drawing List	
Sheet Number	Sheet Name
A-000	COVER SHEET
AX-001	EXISTING LOCUS PLAN & SITE PLAN
AD-001	SITE DEMOLITION PLAN
A-100	PROPOSED SITE PLAN
A-101	PROPOSED GRADING PLAN
A-200	PROPOSED ELEVATIONS
A-300	PROPOSED SECTIONS
A-500	PROPOSED STONE ASSEMBLY DETAILS
A-501	PROPOSED WOOD ASSEMBLY DETAILS
E-001	PROPOSED ELECTRICAL & LIGHTING PLAN

COMMUNITY BUILD I & II

EDAD-608-09 SUMMER 2021

PAUL PATURZO SETH WISEMAN TA: CAROLYN LOWELL

PARTICIPANTS

CALVIN BINGHAM

JUAN GOMEZ VELASQUEZ

DANIELLE PINETTE

DREW TON-MORRISON

CONSULTANTS

HOWARD LAROSSE, ASSOC. VICE PRESIDENT OF FACILITIES PLANNING

JOSEPH CONNELLY, FACILITIES STAFF

CLIENT

HOWARD LAROSSE, ASSOC. VICE PRESIDENT OF FACILITIES PLANNING

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JAMIE COSTELLO, ASSOC. VP/DEAN OF STUDENTS

LUCINDA BLISS, DEAN OF GRADUATE PROGRAMS AND PROFESSIONAL & CONTINUING EDUCATION

ADDRESS: 621 Huntington Avenue, Boston MA 02115

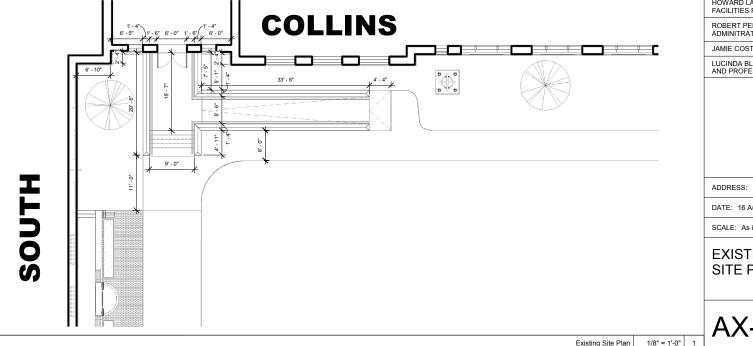
DATE: 16 August, 2021

SCALE:

COVER SHEET







COMMUNITY BUILD I & II

EDAD-608-09 **SUMMER 2021**

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ADDRESS: 621 Huntington Avenue, Boston MA 02115

DATE: 16 August, 2021

SCALE: As indicated

EXISTING LOCUS PLAN & SITE PLAN

AX-001 1

