Thanks to You

We are grateful to the many people and organizations who helped to make this year’s Virtual Circus happen in spite of a world-wide pandemic. We want to thank all of the generous donors, advisory council members, and CED’s staff, faculty and students for pulling together resources to publish this virtual showcase.

**CIRCUS RINGMASTER**  
Victoria Jaschob, Associate Director of Alumni Relations

**CIRCUS COORDINATORS**  
Jessica Ambriz  
Janet Le  
Kris Miller-Fisher  
Valeria Spall  
Jennifer Wang  
Sarah Hwang

**DESIGN + COMMUNICATIONS**  
Sarah Fullerton, Director of Communications  
Lisi Ludwig  
Regina Madanguit

Cover image: Barbara Nasila, Dissociate and Camouflage: A Domestic Violence Shelter
CIRCUS is an important part of a student's experience at CED in that it allows them to meet, network, and explore the careers of our industry partners, alumni, and donors. Students in each of the course sections have been nominated for the CIRCUS program because of their exceptional work. Since we cannot meet in person for our 10th Annual Circus event, we'd like to encourage you to reach out to our students, provide feedback, and offer up any opportunities you might have available.

**CONTACT A SPECIFIC STUDENT**
To get in touch with a student, please email Victoria Jaschob, Associate Director of Alumni Relations

circus@berkeley.edu.

**JOIN WURSTERLIFE.COM**
Connect with our new class of 2020 on our FREE Alumni platform.

**FOLLOW US ON SOCIAL MEDIA**
Instagram @wursterlife
Facebook @CEDNews
Linkedin CED
Twitter @wursterlife
Dear members of the CED community,
Welcome to (virtual) Circus 2020!

Now in its 10th year, Circus is the College of Environmental Design’s showcase of outstanding student work, and this year is no exception! While we regret that the global pandemic keeps us from celebrating with you in person, we hope that this display of student achievements keeps you connected to the College and its graduates. In January, professors nominated exceptional student works from fall studios that best represent the different areas of study at CED. The focus is on students who are graduating from the College this spring. In addition, students were encouraged to submit work created outside the studio under the “Other Works” category. While we all miss engaging with the work in person, I encourage you to reach out to students to give them feedback, or perhaps to offer an internship or employment. They would love to hear from you! Please contact circus@berkeley.edu for an introduction to any of the students. As always, your support of the College, the faculty, and our students is invaluable. I hope next spring once again finds us in Wurster Hall, discussing student work and celebrating the end of the semester together. Until then, please consider making a donation to the College in this uniquely challenging time so that we may continue to support the high caliber of academic achievement for which UC Berkeley’s College of Environmental Design is known.

In good health,

Renee Y. Chow
William W. Wurster Acting Dean
College of Environmental Design
UC Berkeley
DEPARTMENTAL CHAIRS

Eric J. Cesal, Director of the Sustainable Environmental Design Major Program

Karen Chapple, Ph.D., M.S.C.R.P., Chair, Department of City and Regional Planning

Margaret Crawford, Ph.D., Director, Program in Urban Design

Elizabeth Macdonald, Ph.D., M.L.A., M.C.P., Chair, Department of Landscape Architecture and Environmental Planning

Susan Moffat, M.C.P., Director, Global Urban Humanities

Gregory Morrow, Ph.D., Executive Director, Master of Real Estate Development + Design

Ronald Rael, M.Arch., Acting Chair, Department of Architecture
## Showcase Participants

### Architecture

<table>
<thead>
<tr>
<th>Class</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 100C</td>
<td>Dan Muntean</td>
</tr>
<tr>
<td>ARCH 100C</td>
<td>Darell Fields</td>
</tr>
<tr>
<td>ARCH 100C</td>
<td>Jason Campbell</td>
</tr>
<tr>
<td>ARCH 100C</td>
<td>Keith Plymale</td>
</tr>
<tr>
<td>ARCH 100C</td>
<td>Mia Zinni</td>
</tr>
<tr>
<td>ARCH 100C</td>
<td>Sarah Wilmer</td>
</tr>
<tr>
<td>ARCH 102B</td>
<td>Gabriela Vasconcellos</td>
</tr>
<tr>
<td>ARCH 102B</td>
<td>Catherine Covey</td>
</tr>
<tr>
<td>ARCH 203</td>
<td>Steven Huegli + Mark Jensen</td>
</tr>
<tr>
<td>ARCH 203</td>
<td>Dan Spiegel</td>
</tr>
<tr>
<td>ARCH 203</td>
<td>Danelle Guthrie</td>
</tr>
<tr>
<td>ARCH 203</td>
<td>Jasmit Rangr</td>
</tr>
<tr>
<td>ARCH 203</td>
<td>Roddy Creedon</td>
</tr>
<tr>
<td>ARCH 205</td>
<td>Ronald Rael</td>
</tr>
</tbody>
</table>

### City & Regional Planning

<table>
<thead>
<tr>
<th>Class</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP 208</td>
<td>Elizabeth Macdonald</td>
</tr>
<tr>
<td>CP 218</td>
<td>Karen Trapenberg Frick</td>
</tr>
<tr>
<td>CP 268</td>
<td>Thomas Dolan + Jonathan Stern</td>
</tr>
</tbody>
</table>

### Global Urban Humanities

<table>
<thead>
<tr>
<th>Class</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUH</td>
<td>Susan Moffat</td>
</tr>
</tbody>
</table>

### Landscape Architecture & Environmental Planning

<table>
<thead>
<tr>
<th>Class</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA103</td>
<td>Charles &quot;Chip&quot; Sullivan</td>
</tr>
<tr>
<td>LA 203</td>
<td>Karl Kullman</td>
</tr>
<tr>
<td>LA 252B</td>
<td>Danika Cooper + Anna Brand</td>
</tr>
<tr>
<td>LA 252B</td>
<td>Louise Mozingo</td>
</tr>
</tbody>
</table>

### Sustainable Environmental Design

<table>
<thead>
<tr>
<th>Class</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED106</td>
<td>Eric Cesal</td>
</tr>
<tr>
<td>ED201S</td>
<td>John Ellis</td>
</tr>
</tbody>
</table>

### Other Works

<table>
<thead>
<tr>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAKA Competition 2020</td>
</tr>
<tr>
<td>Elizabeth Macdonald</td>
</tr>
<tr>
<td>Sarah Hirschman</td>
</tr>
</tbody>
</table>
Ohio Design is a fine furniture fabricator located in a historic UMU (Urban Mixed Use) building in the heart of the Mission District of San Francisco, a rapidly changing PDR neighborhood. Although the Mission used to be primarily industrial, many businesses are capitalizing on the vagueness of UMU-PDR zoning requirements to house offices, apartments, shops, etc., and forcing much of the existing artisan workshops, fine fabricators, and warehouses to other parts of the Bay Area. This project was developed in 3 parts:

1) TIME:SCALE SITE: Exploration of UMU-PDR through the production workflows of key archetypes program in UMU buildings adjacent to the site and looks at their production workflows and intersections among them

2) TIME:SCALE BODY: Analysis of Ohio Design’s production process from beginning (design process) to end (shipping) organized into 6 key zones: LOADING, OFFICE, STORAGE, BREAK, ASSEMBLY, and PRODUCTION. These zones serve as a precedent for the 6 volumes to be inserted, and as a sorting hat for program to be introduced

3) SORTING: Programmatic analysis and organization of proposed program

This project proposes Ohio Design become Ohio Design + overgrowth space of neighboring businesses through the insertion of 6 volumes organized by Ohio Design’s workflow.

Each volume, filled with program taken from the surrounding site, follows an independent logic for both program selection and volume wall assembly to suit their unique identities. Ohio Design then becomes a) a new, fresh space that stimulates creativity for new methods of thinking through the movement of new people and ideas flowing in and out, and b) a self-contained network of programmatic and network intersections that speak as a microcosm of the changing neighborhood dynamics.
The Machine is an intervention of an existing furniture making space, Ohio Design, which introduces the programming and utilities of Southern Pacific Brewery, a popular brewery located next door. The project started as a study of the hidden world of debauchery in the Mission District of SF. Through this study, I identified key “avenues” that held the highest concentrations of popular alcoholic establishments which led to another study of the differing cycles of work/rest at both Ohio Design and Southern Pacific Brewery. After identifying the work/rest cycles of each establishment, I created a new avenue located at the shared wall of the 2 businesses that would act as an intermediary fluid space that each business could share and utilize to optimize their individual production processes. The avenue not only holds the administrative and support spaces but also a “machine” in the form of an automated storage system that could manage resources while independently and efficiently delivering raw materials or finished products to their ideal location. Furthermore, the machine acts as a metaphysical expression of the work/rest cycle and serves as a spectacle for the customers resting at Southern Pacific Brewery.
Objective: Using rigorous site and body research as the basis for the building concept, develop a program to intervene in an existing furniture manufacturing workshop (Ohio Design) to explore the (in)compatibility of spaces made suitable for work.

Specifically, I was interested in the role of observation, data and surveillance in the empathy building process. In my exploration of the site, I looked at the surrounding area at eye-level as opposed to a bird’s eye view. My interest in the processes by which humans interact with – and personalize – space informed every design decision. The clear throughline in my studies is the importance of observation and the collection of specific data points – a driving factor in my building concept. Intervention: a Coworking and public space coexist alongside Ohio Design-forming a closed loop system of observation and creation. A Coworking space allows the Ohio team to observe the utilization of their adjustable desks in sit or stand mode, the wear and tear of materials or the alternate uses for side tables. To create a feedback loop between the companies in the coworking space and the people they are be creating for, this building includes another layer: a public space – filled with a constant flow of community members who will have access to the open ground floor, but may be asked for their opinions, participate in user-testing and brainstorming groups or be observed as part of the data collection process. The public space must be flexible and temporary in nature – following a model for Flexible Urbanism similar to Envelope A+D’s Proxy and Sidewalk Lab’s Quayside. The transient nature of pop-up spaces such as food trucks, farmer’s markets installations and other activations allow for constant community input as the public votes with their feet. The new building now merges Ohio’s Design Process with the individual work of companies and organizations in the coworking space who are interested in better utilizing data collection and curated observation to inform and shape their final ideas and products.

The idea of cross-pollination, between different companies and fields, is what the Coworking model was built on and my proposal takes it one step further: A feedback loop between creators and the community is at the core of Empathetic Design.
Empathy Building

The role of observation-based research in a closed loop system

With the aim of rigorously data and truth research as the basis for the building project, design a program to measure the following:

- Observation of space and its interaction with the public
- Observation of space and its interaction with its surroundings
- Observation of space and its interaction with its users
- Observation of space and its interaction with its environment

The program is designed to observe and measure the impact of space on the public, including its interaction with the surroundings and its users. The data collected is used to improve the design and ensure that the space meets the needs and expectations of the public.

The program is implemented through a series of observation activities, including surveys, interviews, and focus groups. The collected data is analyzed to identify patterns and themes, which are then used to inform the design process.

The results of the observation-based research are presented in a closed loop system, allowing for continuous improvement and adaptation of the design.

Intervention, a Covering and public space: Creating avenues to observe and act in public spaces. A Covering space is a public space that is covered by a material that allows observation of the space and its surroundings. This enables the observer to see the space from different angles and perspectives, providing a more comprehensive understanding of the space. The covering material is designed to be translucent, allowing for visibility through the material while maintaining privacy for the users of the space.

The covering material is designed to be adjustable, allowing for varying degrees of openness and privacy. This allows for the space to be adapted to different uses and contexts, providing flexibility for the users.

The covering material is also designed to be durable and weather-resistant, ensuring longevity and minimal maintenance. The covering material is selected based on its performance in various weather conditions, ensuring that the space remains comfortable and usable throughout the year.

The covering material is designed to be modular, allowing for easy installation and removal. This enables the covering material to be adapted to different spaces and contexts, providing flexibility for the users.

The covering material is designed to be visually appealing, adding aesthetic value to the space. The covering material is selected based on its color, texture, and pattern, ensuring that the space is visually appealing and attractive.

The covering material is designed to be sustainable, using environmentally friendly materials and practices. The covering material is selected based on its environmental impact, ensuring that the space is sustainable and eco-friendly.

The covering material is designed to be accessible, allowing for easy entry and exit for the users. The covering material is selected based on its accessibility, ensuring that the space is easily accessible for all users, regardless of their physical abilities.

The covering material is designed to be inclusive, allowing for equal access and opportunities for all users. The covering material is selected based on its inclusivity, ensuring that the space is inclusive and provides equal opportunities for all users, regardless of their cultural or social backgrounds.

The covering material is designed to be adaptable, allowing for easy changes and modifications. The covering material is selected based on its adaptability, ensuring that the space can be easily changed and modified to suit the needs and expectations of the users.

The covering material is designed to be interactive, allowing for engagement and participation from the users. The covering material is selected based on its interactivity, ensuring that the space is engaging and interactive, providing opportunities for the users to participate and contribute to the design process.

The covering material is designed to be responsive, allowing for adjustments and adaptations based on feedback and observations. The covering material is selected based on its responsiveness, ensuring that the space can be adjusted and adapted based on feedback and observations, providing continuous improvement and adaptation.

The covering material is designed to be resilient, allowing for durability and longevity. The covering material is selected based on its resilience, ensuring that the space is durable and long-lasting, providing a lasting value for the users.

The covering material is designed to be customizable, allowing for personalization and customization of the space. The covering material is selected based on its customizability, ensuring that the space can be personalized and customized to suit the needs and expectations of the users.

The covering material is designed to be portable, allowing for easy transportation and storage. The covering material is selected based on its portability, ensuring that the space can be easily transported and stored, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be transportable, allowing for easy movement and transportation. The covering material is selected based on its transportability, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.

The covering material is designed to be mobile, allowing for easy movement and transportation. The covering material is selected based on its mobility, ensuring that the space can be easily moved and transported, providing flexibility and mobility for the users.
This project is of a No Exit city, an endless metropolis of gambling and greed. Situated in Emeryville, CA, No Exit formalizes the city’s lineage of colonial struggle, post-industrialization, and illicit activity through a modular system of bars. The programmatic neutrality of the bar shifts in response to various urban ‘types’—represented as park, theatre, and casino—that are posited within this artificial system. Nodes of heightened programmatic interest spawn fortuitously through the interaction between bar and building; these juxtapositions spur different and unexpected ways of living, creating unpredictable tensions that speak to the perpetual instability of metropolitan life.

In No Exit, the city is presented as urbanization: a potentially limitless machine in which living is reduced to biopolitical mechanisms of production and reproduction. Drawing from Archizoom’s No Stop City and Rem Koolhaas’ work on Bigness, the city is conceived as formless and infinite; different urban conditions (e.g. housing, recreation, entertainment) are no longer tied to specific sectors but are dispersed everywhere, becoming a site of relentless leisure, spectacle, and congestion. Inhabitants of No Exit are enthralled by this hyperreality: it draws people into the city and is the reason why they stay—for once you enter, you can never leave.
This project takes remnants of discarded Emeryville to propose a district containing a theater, a casino, dance halls, shopping corridors, and parks. It leverages the casino’s ability to capture land in order to return the historical Native American burial grounds back to the Ohlone tribe. Proposed site is excavated 20-25 feet into the ground.
Given Emeryville’s historical and programmatic conditions, this project presents a new approach to urban transformation that engages urban residues as a form of public space. A series of analytical figure-ground maps at different moments in history present the city’s development and give rise to a site and an architectural form. These maps identify certain programs that leave residual traces and become formal artifacts in the city today. The project engages two examples of such artifact, the Sherwin Williams Factory and the Oakland Trotting Park. The urban transformation takes place through a new institutional type — the park/casino/theater complex. The building echoes the form of a racetrack, with programs inserted into the captured edges of a wide ring of open space. This open captured residual space is rebranded as a public ground that bridges the two halves of the city divided by the railroad.
The Project aims to quench the conflict among the residents (the homeless), a landowner (the UC Berkeley Campus), and activists’ vision toward a public park named “People’s Park” in Berkeley. The design goal is to build student housings for 500 UC Berkeley Students while providing an open green space for the community.

To maximize the open park space for the community, an urban canopy is created to retain the loss acreage due to massive student housing and homeless rehabilitation center. The design augments natural lights and public spaces to encourage cultural and social harmonization.
This project is a “Design for All” that is aimed to balance the needs of each group. I believe each of the four groups have a right to the future use of People’s Park. The project’s organic form works to preserve the identity of the existing landscape. Each mass consists of a developed program that represents each group.

For UC Berkeley, student housing and a faculty center is implemented. For occupants, a rehabilitation center and workshop is included. For the city, affordable housing and a shopping center is incorporated. Each program piece is connected by bridges so that all users can experience amenities and views of the park. A monument in the center of the site also serves to commemorate the park’s crucial history and unify both visitors and occupants.
People’s Park, Berkeley, has a history deeply rooted in political tension. The park was built by the people in the year of 1969. Prior to its destruction, the Park of 1969 was a pleasant space for recreation. It was a space of identity, of collaboration, and a site for Free Speech. Considering its history and meaning, how would one speculate a housing development that sensitively captures the authenticity and meaning of the Park of 1969? Personally, I have imagined an architecture that is neutral, yet liberating. A white box perhaps? I dream of an architecture that reflects a strong feeling for Free Speech. One that will act as a stage for the demonstration of ideas. The housing development is concentrated into a singular structure on the western end of the site. This would allow the Park to be free of any large-scale obstacles, isolating the architecture completely. This singular white box would then sit as a gentle monument on the site, intensifying the identity of the Park and of the city of Berkeley. To reinforce the cooperative intentions of the Park, the white box aims at blurring the boundaries between public and private, between interior and exterior. Therefore, all units share a study, a kitchen, a continuous balcony, and a courtyard. The final intention is for the architecture to provide a framework for the people to build upon. Thus, there will be no park, just gravel. The park should rightfully be done by the people of Berkeley. And that through this process, I hope that the people would rediscover the lost identity and meaning of People’s Park, with a feeling of nostalgia.
With climate change increasing the frequency and intensity of natural disasters, it is important to adapt architecture to the new emerging threats we must face. The Fireproof Cave is a three-story family house located in the Oakland Hills which is a site at a very high risk of a devastating wildfire due to the strong Diablo winds. The dwelling is made of two materials: wood that can easily burn and concrete that is fire resistant. In case of a fire, the wooden part of the dwelling would be partially protected by two concrete walls but still able to burn. The only remaining structure after a fire would be the two large concrete walls, the foundation ready to take on a new house, two water sources used by firefighters and the fireproof cave. This cave made of concrete can only be accessed through the bottom floor of the dwelling and would be used as a movie theater most of the time. If a fire were to happen, the cave could easily be used as a safe space to shelter in, with a bathroom, a kitchen and a sleeping lounge to allow residents to live comfortably until the fire is put out.
The dwelling that resists fire was designed as part of a larger neighborhood that is connected by pathways of water and landscaping to link pathways of fire suppression. The neighborhood was designed with fire hose radiuses in mind. The dwelling mirrors the larger connections with its own paths of water and earth that penetrate throughout the building and utilize a sprinkler system in the case of an emergency. The stone walls that run throughout the dwelling connect the building physically to the ground and mirror the way in which matter acts as both a physical connector and divider of space. Materiality also acts as another line of defense against fire. Some of the dwelling would burn, but would do so in layers that would allow the inhabitants to retreat into a concrete bunker and the walls would remain standing for a more easy reconstruction. This project started with many collages that then became the basis for the neighborhood composition and then the dwelling beyond that. Go bears.
The project redirects the different tectonic and optical anomalies—found in the formalization of energy into employable architectural qualities. Through a series of misreading, distorting, and replicating of the content, different understandings of illumination, transparency, and movement can be derived from the composition. This implication of architecture is then represented in a media true to the transitional quality. The iteration uses data collected from the Californian Burn sites to create formal theoretical ideas on structure and spatial relationships through a series of collages. This process allows for a paradigm shift in how we construct buildings, how we work, and how we live. It enforces architecture to include tectonic responses to changes in biology, geology, geography, forestry, and housing. By anticipating a future of fire, prototypical dwellings reflect future lifestyles.
Given the heavily publicized housing crisis that San Francisco has faced, yet continually failed to mediate for decades, this studio investigates the potential densification of the Taraval commercial corridor in the Outer Sunset. The project is a proposal for a new mid-rise housing typology that is rather foreign to the Outer Sunset, predominantly zoned for single-family homes. In order to address the housing shortage, this project addresses what it means to live in the community of a multi-unit complex as the driving force in encouraging increased urban density. Split by a central circulation space, the building houses two-story co-living units on the west wing and traditional studio, one, two, and three-bedroom apartments on the east wing. This central circulation space spills out into indoor/outdoor community spaces distributed across several floors tailored to fit the needs of a diverse living community.
Layered with decades of political and socio-economic complexities, San Francisco’s housing crisis lacks one definite solution. In response, this studio explores a new housing prototype in the Sunset district with three main goals in mind:

1) To increase density while not creating displacement or gentrification.
2) To generate designs that respond to the local climate through the building form.
3) To accommodate the diverse living styles and needs of the city.

Among the three given prototypes, I was assigned to design a “townhouse” which acts as a transition between the commercial front and the residential areas. Intrigued by its role, I explored the concept of “transition” not only as a physical attribute but also as an experience from the various layers of public to private. Surrounded by a Corner, Mid Block, and R-1, the Townhouse is located on Taraval and 27th Street. The building acts as a transition from the apartments to the single-family houses by retaining elements from both: mixed-units and private garden space. With the combination of the central void and circulation, transitional spaces are activated through movement. This is continued by wooden slats surrounding the internal circulation as well as the performative doors and windows which allow the blending of indoor and outdoor discrepancies.
To address the housing shortage in San Francisco, this project transforms the Outer Sunset District into a dense community with multi-unit apartments along the transit lines of Taraval Street. The apartment has a series of public spaces to promote a healthy and positive lifestyle. The ground floor community center, the inner courtyard, and backyard garden encourage residential gatherings and social interaction. In response to the chilly Sunset District climate, the roof and the form of the building are developed to maximize southern sun exposure in the units and the courtyard. The urban edge is a perforated brick facade that serves to control daylight, and blurs the distinction between public and private, and functions as a thermal mass screen. Inside, the residents are welcomed by a facade of plant-integrated screens that reflect the notions of a healthy, sustainable lifestyle. The screens also filter sunlight and separate the semi-public courtyard space from the private residential units. The project increases livability, sustainability, and affordability by rethinking urban density.
Healing courtyard - a space for everyone.
The 100C studio was an experience in designing with client and site context in mind for a Domestic Violence Shelter in UC, Berkeley. I first and foremost decided to camouflage the building’s program within the context of the street. I embraced the traditional residential roof as a motif for the camouflaging of the building elevation within the neighborhood. The roof became a playful opportunity to preserve the context of the roof lines but also to create a vertical relationship with the outside through the natural skylights. The camouflaging continued in the façade where the building was broken up volumetrically and materially to give the illusion of multiple buildings. The push and pull on the floor plate created a play with shadow and light that emphasized the heterogeneity of the building. My thesis was to question what role the building can play in defining relationships between the residents, staff and the greater community. I concluded that the building’s role should be to foster a sense of community while preserving the agency of the residents in how they can interact with the spaces. How I did this was through the overall spacial division of the major communities involved. To begin with family units were pushed to one side of the building and the singles units occupied the other. In between was a spacial buffer that held several community spaces that allowed for the flawless and indiuvial driven interaction of the residents. The courtyards were not just an opportunity to bring the outside inside but also to encourage different levels of community interaction.
Domestic violence shelter, as a new type of short-term multi-family housing, has been under social problems, such as lack of "home" feeling and privacy between residents. Questioning on apartment buildings which are usually adopted as DV shelters, the project proposes a new type of housing which combines the efficiency of apartment building and function of healing for residents. This project extracts the geometry of typical housing as a cultural icon of home to invoke intimacy within home and encourage social activity through different spatial experiences. In addition, privacy is one of the continuing issues to address. The design of the two street-facing facades mimics the street elevations on each street, making the building merge into the area of intersection of both residential area and commercial area.
The Karl Marx Hof, widely recognized in the relevant literature as the archetypical housing project of the period known as Red Vienna, is analyzed as a case-study that represents both its own individual conditions as well as those of its relationship to the greater context of the municipal housing program as a whole. The building’s impact was examined at three different levels, that of the citywide, neighborhood, and site levels of scale. At each of these scale levels, the impact of the Karl Marx Hof is further broken down into topical categories covering architecture, urban theory, political and sociological analysis, and more. The findings from this process were that overall, the Karl Marx Hof contributed to the empowering of the Viennese proletariat primarily by improving their domestic living conditions and by imprinting a message of newfound strength onto the city’s built environment. It also to some degree increased the scale of the inhabitants’ social networks, a step towards the larger goals of class solidarity desired by the party leadership’s socialist-based philosophies. The significance of this analysis lies in understanding how architecture and the built environment can impact local culture and shape the lives of its users as well as its neighbors. Without an understanding of these topics, future architectural designs cannot hope to deliver sociocultural impacts of their own.
“Wenn wir einst nicht mehr sind, werden diese Steine für uns sprechen”

- Karl Seitz, Mayor of Vienna

“When we are no longer, these stones will speak for us”
As a pivotal space of shifting American and Chinese-American cultural identities since the mid-19th century, Portsmouth Square has transformed over time, within the spaces of the park and through dialogue with the municipality and members of the local communities. A study of urban interventions in this space, along with representations of the square during three eras of change, reveals the shifting ideals of those in power: the first presentation of American-ness in California and erasure of Chinese immigration (1846-1906); striving for modernity and assimilation (1948-1970); and embracing tourism opportunities while balancing local identity groups (1987-present day). These temporal categories reflect changes in the way that American-ness is presented and enacted, as well as the development of the Asian-American identity through claiming and occupying the space as a community. Through the examination of legislation and simultaneous spatial change, the significance and impact of law upon identity formation and placemaking is revealed. This paper relies primarily on archival images to construct a unique perspective of San Francisco’s Chinatown, Portsmouth Square, and the lasting impact of Chinese Exclusion. The narrative of Chinese immigration and the formation of the Chinese-American identity as distinct from both Chinese and American is essential not only to the historical understanding of Portsmouth Square, and Chinatown, but also to holistically understanding what it means to be Chinese-American. This historical narrative reveals the power of space in the development of cultural identity, as well as the reciprocal power of identity in shaping space.


1974: Men and children play Xiangqi in Portsmouth Square, using the covered seating areas created during the 1960s renovation. The Financial District is visible behind the players. Source: Gaar, Greg, Men Playing board game in Portsmouth Square, 1974, photographic print, San Francisco, California, OpenSFHistory / wnp28.2729.jpg

2019: Chinese American performers sing for an audience of locals and tourists while groups play Xianqi or cards in the shade. The Chinese themed structure on the left marks the entrance to the Chinese Culture Center, located within the Hilton hotel across the street.
This paper traces the spatial imprints of Istanbul’s radical urban development project instituted by the Turkish Prime Minister Adnan Menderes in the mid-century, on Aksaray Square, a public square at the heart of Istanbul’s historic peninsula. Promoted using a populist rhetoric of “beautifying Istanbul and glorifying its Ottoman past,” Menderes’ project sought to appeal to the needs and values of the traditional society while articulating a discourse of modernity, and hence pioneered the unprecedented marriage of modernity with tradition in the history of modern Turkey. Yet, upon investigating the impacts of the intersection of the Vatan and Millet Boulevards at Aksaray Square in the gesture of framing the Mahmud Pasha Mosque, a heritage of Istanbul’s Ottoman past, this paper demonstrates that the Turkish government employed heritage and urban planning as instruments for imposing modernity and redefining Turkish national identity, in contrast to the rhetoric used by the project’s proponents. This paper identifies heritage as a key for national identity formation and as having intangible and tangible components—the former arising from experience, and the latter, the built environment. Using this framework, it conducts analysis at the scales of the urban landscape, the district—and more closely, the square and the monument—and demonstrates that Menderes’ project resulted in the re-interpretation of the Murad Pasha Mosque and the transformation of Aksaray Square’s identity, by destructing the built environment and consequently, urban experience.
Humans need to be exposed to a certain amount of light daily. On the other hand, overexposure to this amount can lead to different disorders like cancer. The circadian system of the human body rarely had been considered for the lighting of the buildings. Usually, the amount of luminance, glare, and the color of the light had been studied and implied to the buildings. Circadian rhythm of the body impacts every organism which makes it a trendy topic to be implied. Lighting in every single space can be different due to the different programs. Each space has to have its unique lighting design and since the spaces are designed for people, human bodies should be considered as a fundamental factor. Doing this research benefits the designers to realize how impactful is the light on human bodies or whether it would benefit them or negatively impact them. The main objective was to realize how natural and artificial light impacts the availability of circadian lighting in a space. Using this workflow, the lighting in an office space in Oakland was evaluated in Alfa in terms of circadian lighting. This research was the first step of a comprehensive research in which a field study, in-place measurement, and occupant surveys would be done in future to seek deeper knowledge on this topic. A 3D model of the commercial office was created on Rhino for this research. This test model was linked to Alfa for carrying out different simulations. Different types of lighting for the space was considered with different percentages of shading devices with clear and overcast sky. The existing EML of the space was determined for each simulation. The workflow and data collected led in a solution for spaces in the office which were not blue-light enriched.
Parametric modeling offers a more effective approach in building performance integration, because of the algorithmic process and clearly defined design intent. Inspired by the Al Bahar Towers as well as traditional Japanese origami, the proposed shading system will respond to solar radiant exposure measured on each façade of the baseline model. The data will then be used to identify the optimal openness of the shading system for minimizing cooling load, according to orientation and time of day. With the use of parametric driven analysis, the research study seeks to generate guidelines for architects to create a building with enhanced performance within the hot-humid climate, so as to deteriorate the enormous impact on climate change by our built environment. It also aims at inspiring people with a greener lifestyle and reflect their connections with the natural environment.
The central concept of the project is to capture and intensify the diversity and complexity of the adjacent context by dynamically manipulating different spaces and programs. The site locates in the area called 'THE HUB,' which is the node area of four neighborhoods—Hayes Valley District, Van Ness/Civic Center District, SOMA District, and Mission District, each represent different communities. The project is trying to create a space where allowed people from different communities to come together and take advantage of the public amenities. In terms of the architectural space, the "tube" like volumes creates space by interacting with the generic box. As a passive sustainable strategy, the "tube" allows daylight and natural air into the building as well.
Set in San Francisco’s gentrifying Soma neighborhood, Ascending Program Link seeks to encourage interaction between users of the building’s multiple programs and, by extension, provide a link between different constituencies in the city. In order to achieve this, the building’s multiple programs are designed around a porous tube which houses the main stair, a series of gathering spaces, and opportunities for daylight and cross-ventilation. The tube begins at the street corner for maximum pedestrian exposure, and then it bends against the southwest-facing back wall of the site to let filtered daylight into spaces further from the facade. Programmed bridges, catwalks, and seating nooks pierce through the tube and visually link the building’s different uses.
The goal of this project is to act as a stage to display activities and interactions to the city, to amplify urban life. The front of stages includes all the program that goes on display in different colors, creating a legibility system. The back of stages is planned at the rear of the building, and it feeds the front of stage with circulation, structure supports and services.
As a multi-program municipal building serving citizens, this project focuses on how to create an urban and welcoming gesture even with very limited land, which is the normality of San Francisco. Rather than creating an enclosed and isolated building environment, the Urban Living Room employs these double-height “window” moments around the building perimeter as opportunities to interact with citizens and the city. Together with the park in front of the site, this building will become a new dynamic urban hub connecting the neighborhoods. In terms of the program, all of them are distributed around the open central atrium, satisfying self-functioning and openness. From the perspective of the building system, besides performing sustainably, the double-layer façade system could also provide a different visual experience to the city when day and night.
The Slot provides an extensive view into California’s celebrated wine-making process within an urban context. Often reserved for pastoral landscapes, the program instead is located in the heart of Oakland across from charming Lake Merritt. The winery captures the dynamic population to reveal captivating views of the flow of wine production. The site attracts passing pedestrians by offering a glimpse into the fermentation vaults and entices passers to visit for a glass of local wine and tasty food. The ground floor holds a tasting room and double-height wall featuring wine bottles for purchase. Stepping up to the second floor, a restaurant and private event space provide decadent views of Lake Merritt. Each program is coupled with outdoor rooftop space situated along the edge of a rooftop meadow – helping to insulate the fermentation vaults below while incorporating the natural beauty of the surrounding landscape. The top level provides office space for the winery’s staff members and has additional desks available for rent to local businesses. The public areas employ a fully operable façade system, allowing the space to open up to the outdoors and embrace natural ventilation throughout. Visitors are also able to schedule a tour of the comprehensive wine-making process starting from the crushing deck, moving through the basement production zones, observing the final bottling process, and ending with a glass of wine on the rooftop.
This project is an urban winery located next to Lake Merritt in Oakland. It combines the flow of wine-making and the route of visitors’ tour. As a result, the barrel storage space becomes the intersection and the most significant image of this winery. The barrel storage is at the center with flows of wine-making and visitors surround it interlocking with each other. Visitors can explore the wine-making process as well as the unique scenery of Lake Merritt during their tours.

This winery is not like the traditional ones that have most of the wine-making space underground or covered by solid walls. Since it is an urban winery, the unique feature of it is the exposure of the wine-making process and the interrelationship between the wine-making circulation and the visitors’ circulation. The interaction between the wine-making and the tasting is enlarged in this winery. It will stimulate more urban activities around this area and make the wine-making industry not only in the rural vineyard but also at your backyard.
Located in Oakland, facing over the beautiful Lake Merrit, the project is proposing an urban facility for the production, storing, and selling of wine, as well as building close connections to its neighboring community. The large floating volume lifted off the ground differentiates the mixed programs into two types: one is solid in the opaque volumes, requiring relatively stable and enclosed condition such as the underground barrel storage and the second-floor laboratory; the other is transparent, which is more open to the public and allow for flexible circulations of both production and retailing. The heavy mass is structurally supported by a series of sloped shearing walls whose triangular geometry allows for the most flexibility on the lower levels. Primary among the wall system is the central staircase which almost splits the building across the diagonal line and defines the programs into two sides: winemaking on the north has access to the backyard loading area while the retail and communal space is sitting on the south side with more visual connections to the street and the lake view. The staircase in the middle is not only a vertical circulation core but also serves as the ventilation stack and central light well, supplemented with a secondary skylight system, which cut through the floor slabs to shape a diffused lighting environment.
A DIAGNOSTIC SPOT
Production/Public

The space may be too closely connected to a series of steps ranging from the production area to the public area. This can lead to a lack of separation and understanding of the various spaces. It is important to ensure that there is a clear flow of movement between these areas, allowing for easy access and understanding of the different functions within the space. This can be achieved through the use of distinct design elements and clear signage.
This is an urban winery project which develops a facility for the production, storing and selling of wine, and attend to the complex relationship between the concerns of a place, the needs of production, and the role of both worker and customer in the way a program situates itself in a place. Instead of the strong relationship to the rural landscape that wineries have traditionally held, Silver Leap will put an important focus on the form and establish a relationship to the surrounding urban context.
This project explores how community architecture such as library could be resilience to the rising global environment challenges such as flooding, fire and earthquake. This architecture use earthquake isolation system to avoid damage during earthquake. Meanwhile, it could serve as a shelter for refugee during nature disaster. As a public architecture, it also explores how architecture could serve the community. The first floor is 100% public, include leisure space and a public park where people could get easy access to the water. The second floor explore how reading space could get enough light in different ways.
With 56.3% White, 29.7% Hispanic or Latino, and 6.23% Asian, San Rafael is a community where diverse cultures come to celebrate. The site’s location is adjacent to the San Rafael Creek. However, access to the waterfront is significantly limited. With little to no water accessibility, street activities have missed the opportunity to engage with the waterfront fully. Moreover, the rise of the sea level is threatening the site’s canal condition and putting its future activities in danger. In response to the diversity, vibrant culture, the need to engage with the waterfront, and the vulnerability to the water crisis, Pop-up Volumes is a juxtaposition of extruded volumes that are elevated and supported by a series of concrete piles. Each volume assigns to a unit program, yet united by a flexible space that serves as primary circulation and rentable pop-up spaces. Pop-up volumes move beyond the conventional definition of a pop-up store to propose a community shared hub that brings the community together, to reconnect with the water and to protect, serve the community during the extreme weather conditions of the near future.
The project synthesizes structure, envelope, environment, and materials into an integrated architectural solution. The facility incorporates mitigation measures in anticipation of discontinued municipal utility services following a natural disaster. Based on the analysis of the site, context, and surrounding community, the project is considered as congregate and engaging infrastructure to attract and assemble the community. It focuses on applying passive strategies for sustainability to reduce electricity costs. The continuous volume lifts from the ground and elegantly leads the attention to the canal. The space under the volume is treated as transparent to engage the public to the riverside. The lifted volume uses steel truss as structure, which is supported by concrete shear walls. The facility is designed to be occupiable after a natural disaster event, serving as the community’s recovery center.
The SROs (single room occupancy) were created in the 19th century and often inhabited by underrepresented immigrants and other new-comers to cities for short stays. While the history of SROs has been fraught, the needs and benefits of SRO housing are clear in the context of a housing crisis. This project proposes a rejuvenation of the SRO as a co-living social space to create safe, humane, and affordable housing in urban areas.
This project imagines a revival of the Single Room Occupancy (SRO) typology in Berkeley, at the corner of Shattuck and Hearst Avenue as a much needed component of a remedy to the housing crisis in the Bay Area. The program calls for a 5,000 square foot multi-use community space, as well as 26 single-occupancy units, two communal kitchens, a lounge, and several shared living spaces. The four-story building is composed of cross-laminated timber structure (CLT), with massive 5 foot deep beams creating the lengthy span for the open plan community space on the ground floor, while residential units are primarily arrayed along the Bay-facing western facade on the three floors above. Along Shattuck Avenue, the bustling main corridor of Berkeley, the communal eating spaces are visible through tall storefront windows, shaded by large vertical louvers.

The building aims to be carbon neutral and features a green roof, solar array, passive solar measures, and a large insulation value provided by the CLT wall and roof assemblies. In addition to its daylight considerations, the building uses the three-story corridor space in the center of the building to vent out hot air passively using the stack effect. Automated clerestory windows in the ventilation corridor ensure that ample air movement is provided for the communal spaces as well as each private room, which can be individually climate controlled by manual through-wall louvers above each residential entry. This modern re-imagining of the SRO seeks to reconcile its tenement housing history with an ecological imperative to reduce the urban footprint as well as fostering a sense of community for single tenants.
This project primarily investigates on different interior atmosphere in public and private space. By dividing the building into 2 parts, private residential rooms in northwest and public space in southeast, people in residential rooms can enjoy the quiet and private courtyard, while people in public space can have a better view of Berkeley downtown. The entrance is at the southwest corner of the building. First floor is a multi-use room which can be used as an art gallery and café. People can go upstairs through these 2 cores. Because of the height difference, one of the core leads to private rooms and the other is to public space. The second floor is mechanical rooms, kitchen, dining room with an outdoor garden and an office. Third and fourth floor have 2-story media room and a lounge. Those public space have various dynamics views and lighting atmosphere because of the manipulation of openings. Multi-use room has a curtain wall on the street side which allow passengers see the activities inside and the transparent façade makes the colorful mass floating in the air. Kitchen’s view is framed by a square window. The dining room’s view is framed through a rectangular window, making people feel view of the garden a landscape painting. The media room on the below floor is a pure black movie room. These black reflective stones are screens. The whole space looks clean and simply. A red staircase connects the reading room on the upper floor. Half of the reading room is an outdoor yard, with curved walls that soften the light. These bookshelves are central pivoting doors. When they are opened, the reading room becomes a half outdoor space. On the other side, curtain wall on the facade let people enjoy the quiet inner courtyard. The plane of each floor is scattered to each other, making each house have an outdoor balcony. The whole building adopts steel frame structure, and the large-span multi-functional room on the first floor is supported by truss. Mechanical ventilation is adopted in the kitchen on the first and second floors, and natural ventilation is adopted for the rest of the space.
In the throes of a housing crisis, amidst an urban environment increasingly marginalizing tenants in need of low rent housing, the typology of the Single Room Occupancy demands re-evaluation. Now resurfacing as an economically viable method for affordable housing, this iteration of the SRO establishes commonality and shared resources via an elevated central garden which provides light, air, and open space for tenants inhabiting the units, and essential daylight to the marketplace situated at ground level below. Outdoor spaces for sleeping revitalize the concept of the sleeping porch, while naturally ventilated corridors double as gathering spaces overlooking the courtyard. The SRO poses a single-occupancy space as an avenue for generating more dignified communal spaces justified through their efficiency, and elevated by their rarity.
The model of a “Vehicular Navigation Center” provides critical services while allocating space for vehicular inhabitation for the houseless as a transition to achieving permanent shelter. Tasked to incorporate the vehicle part of a “unit”, this project embraces a temporary and more mobile typology of housing.

The design oscillates between collectivity in daily ritual and individual compartments of privacy. Controlled movability and shared functionalities create smaller scale overlaps between the collective and individual. Contained and conditioned space nestled within an open air shell describes the environmental condition while simple and economical means describes the construction intent.
A motorless mobile home — Rolling House reconsiders the rigidity of domestic space by freeing certain components from otherwise fixed positions to create dynamic, highly customizable housing. Tangled between the Southern Freeway, Balboa Park BART Station, the historic Geneva Car Barn, and a dense net of overhead trolleybus wires, Rolling House borrows qualities, both mechanical and sensational, from the many vehicles and infrastructures that surround it. Within the house, utilitarian elements such as sinks, counters, and closets are remade free-standing and mobile, allowing for continual customization within the living unit. Residents are given liberty to choose the type and number of elements for their respective units, creating a stepped and subscription-based rent. This flexible living model can be used to meet occasional needs, like renting an extra oven for Thanksgiving dinner, or on more long-term bases. Throughout the building, the functions and utilities needed to orchestrate these movements become the main characteristics of its design. Stairs and sloping concrete pours articulate the exterior envelope. Wide corridors make room for ostensible front porches. Utility pipes become figural displays within light wells. The day-to-day use of overhead doors and rearrangement of living elements animates both the interiors and facades of the Rolling House.
The proposal is an experimental work to examine the possibilities of a new system of a housing typology that can be responsive to the unpredictable urban conditions. The project had been started by a paradoxical thought, "A clear demarcation delineates an autonomy of lives." A wall is being a structure by being fixed on the ground, and space is being created by a duplication of the walls. In the project, different spacings between the walls are being functioned by filling with different programs, such as mobile housings, mobile stores, libraries, parking lots, structures, MEP, and green spaces. In other words, the mobility of programs is achieved by the fixed walls and the servant spaces. Due to the wall structure that is already set up, forms of the mobile housings are relatively not constrained to the vertical load. Instead, the preference of inhabitants will determine the forms of the housings. According to the inhabitant’s preference, the elevation of the architecture is changing as well. By this, the architecture reflects a myriad of needs from the people and the city through a repetition of the walls.
The project proposes a new typology which shuffles traditional assumptions about domesticity, co-living, and the larger community. On the first floor, drivers and their vehicles find temporary dwelling units to stay in. On the second floor, which provides amenities such as showers, restrooms, and lockers, temporary occupants going about their daily bathroom routines and outside bathhouse visitors mingle. The bathhouse landscape on the third floor is the most neutral space of the building—everyone is there for the same reason: to enjoy soaking in the heated pools. Similar to public bathhouses in Ancient Rome, personal hygiene is in the public realm, stripping layers of societal inequality and acknowledging the commonly shared rituals of bathing.
The primary focus of Studio one over the fall semester has been the design and development of 3D printed roofs in the form of vaults and domes. Nubian vault and squinch dome structures, popularized by the Egyptian architect Hassan Fathy in the early 20th century, have been constructed for thousands of years, employing fundamental principles of laying mudbrick in courses that require no shuttering to create roof enclosures. The primary building material for these architectural structures was mud brick, comprised of water, locally available soil, and straw. The coursing of mud bricks by traditional masons followed particular patterns to allow for these complex structures to be constructed without formwork. By emulating and altering these coursing patterns, and using a customized SCARA robot, an array of complex vault and dome structures can be created through the robotic deposition of an adobe mud admixture. 3D printing earth through vertical layer deposition for walls is relatively straightforward. However, when it comes to printing a roof or enclosures, the self weight of adobe often leads to the collapse of the printed roof structure due to gravity. The resolution of this challenge is crucial for the realisation of a completely 3D printed building. This research is further extended to the proposal of a shelter in Darfur, Sudan. Early prototypes reconsidered the basic barrel vault by closing one end, which enables for angled printing to be achieved, much like the angular coursing of Nubian vaults that lean against an existing adobe wall. Test vaults were created with slopes of 15, 30, 45, 60 degree angles. Reducing slope angle allows for fabrication with a three-axis robot, but limits the span of a vault. Test vaults were also printed on inclined print beds using angled nozzles to keep the nozzle oriented normal to the extrusion direction for an angled layer deposition. Advanced scripting tools were developed for the generation of sophisticated toolpaths for the printer, allowing for non-planar toolpaths and interlocking surface textures. This method of scripting increased the structural stability of the prints, thus proving to be critical for the successful print of the vault and dome prototypes.
The research culminated in the design of five unique 3D printed shelters. The proposal was for a low cost housing prototype for Darfur. The house has mainly three functions – gathering, sleeping and eating. Locally sourced soil is used for printing. Further, materials like straw, palm leaves, jute and fabric is used as cladding for roof and openings. The potential for generating apertures, integrated furniture, and staircases that integrate with vaults and domes were tested at 1:50 scale. Techniques for inserting wooden sticks between layers of prints were explored to accommodate auxiliary systems like a staircase or secondary roof structure. One of the printing methods took an unconventional approach of layer depositions in a bath of sand to eliminate the need for conservative print angles or printed support material. Once the clay print is dry, the sand is excavated from within the dome. The projects also look at the experiential quality of the printed adobe spaces. The entry of light, air and water into the built space is carefully crafted. This research is being further developed in the ongoing Spring semester, where the mud printing is integrated with a wooden roof.
Embarcadero Rising: A Climate Emergency Response is a neighborhood plan for the climate crisis. The Embarcadero is San Francisco’s most economically and visible waterfront. It is extremely vulnerable to the effects of climate change - immediate and radical intervention is needed to protect the space for current and future residents and visitors. Designed for City Planning 208: the Plan Preparation Studio, the Embarcadero Rising Team looks to democratize the waterfront, adapt and protect the city from the impacts of climate change, reduce greenhouse gas emissions, and improve health and community happiness, all while building on the Embarcadero’s rich history to foster a new identity.
The Emerald Embarcadero is a reimagining of San Francisco’s historic waterfront as a place where residents, workers, and visitors alike can renew their connection to the water in the context of a changing climate. It will restore the waterfront for human and natural ecosystems, turn sea level rise risk into opportunity for resiliency and adaptability, and activate a network of public open space and amenities that are well connected with the city.
from roadway to greenway

Transforming the roadway into a park is a move that provides social and ecological benefits in addition to creating a new major public amenity.

back to nature: living green & grey infrastructure

Living Shorelines

Living Shorelines is an alternative approach to sea-level rise and flood adaptation conceived to move traditional hardening projects to natural ones. This approach focuses on using natural systems to protect communities by offering social and recreational benefits.

goals & strategies

mitigate and adapt

reactivate

connect

- Resilient coastal and built environments
  - Natural and ecologically-friendly coastal areas
  - Develop natural and ecologically-friendly coastal areas
- Reduce the city's carbon footprint
  - Increase green infrastructure
  - Increase urban green spaces
- Increase public amenities
  - Improve public access and activity along the waterfront
- Increase public accessibility
  - Improve accessibility to the waterfront
- Increase public engagement
  - Increase community engagement and public participation
- Improve public awareness
  - Increase awareness of the need for action

- Connect the community
  - Connect the community to the waterfront
- Connect the community to nature
  - Connect the community to nature and the environment

- Connect the community to culture
  - Connect the community to cultural heritage

The practice of transportation justice requires a courageous and honest assessment of both the negative and positive impacts to low income communities of color and people with disabilities from transportation projects and policies—past and present. This report is prepared with Just Cities in partnership with the Fall 2019 UC Berkeley City Planning Graduate Transportation Studio.

This report provides a preliminary analysis of currently available information and data regarding the past and current impacts of the East Bay Bus Rapid Transit (BRT) Project on the people, environment, businesses and homes around International Boulevard (East 14th Street)—while providing critical insight behind the planning and development process. Report preliminary findings may change with additional information and future analysis.

Often, transportation projects and their impacts have been framed in narrow, siloed terms, ignoring the broader history of places and the people within them. We aim to broaden this lens and help provide documentation in order to preserve this history for the future.
Assessing the Past & Current Impacts of the International Boulevard BRT Project in East Oakland

FINAL REPORT JANUARY 2020
Transportation Planning Studio
Department of City and Regional Planning, University of California, Berkeley
in partnership with the Dellums Institute for Social Justice | Just Cities

FORUM ON BRT IMPACTS
Assessing the East Oakland Bus Rapid Transit (BRT) Project
Public Merchant Townhall Forum & Presentation of Preliminary BRT Impact Research Findings.
December 9th, 2019

Presented by THE DELLUMS INSTITUTE FOR SOCIAL JUSTICE | JUST CITIES
in partnership with the UC Berkeley College of Environmental Design:
Department of City & Regional Planning 2019 Transportation Studio
This research was conducted by a team of 6 Masters in City Planning students for the course CP218: Transportation Planning Studio in the Fall of 2019. At the request of UC Berkeley’s Disability Access and Compliance (DAC), the students investigated to what extent the Loop, an on-demand ride-hailing service provided to people with disabilities on campus, is meeting the needs of its ridership and how the service could be improved.

The team utilized a mixed methods approach, collecting and analyzing both qualitative and quantitative data. They analyzed granular ridership data collected between August 2018 and September 2019 including more than 16,000 rides. A survey was distributed to Loop users as well as members of the campus community who are qualified to use the Loop but have not done so. The research team also conducted interviews with thirteen Loop users to better understand specific user experiences. Finally, the team conducted site surveys and collected data on available amenities at all 37 Loop stops.
Finding 1: The Loop is a unique service and serves the needs of many

In the University of California system, 7 of 10 campuses operate campus transportation programs for individuals with disabilities (see Rule 2). All institutions require students with qualifying disabilities to register with the service provider, these programs come in various forms. Some programs, such as a standing service with pick-up and drop-off service, offer rides of varying types and the accommodation based on these schedules. Other programs, such as a van service, makes stops at designated locations at fixed times. If the campus area services provided as most campus transit systems do not operate street legal cars or use a shuttle service for transportation beyond campus.

The Loop Program at UC Berkeley is unique in the UC system. It relies on users to request rides on demand from mobile applications or by calling dispatchers. Rides are offered between any of 37 designated stops on the central campus.

Several campus services located on campus boundaries where other public transit is available. 75% of survey respondents agreed that the Loop provides a more convenient solution to public transit. Still, 53% of survey respondents agreed that Loop stops are conveniently located throughout the UC Berkeley campus.

Most professional Loops have interviewed agreed that the service is extremely necessary but needs improvement. Overall, 46% of Loop users believe the service is available to the service (Figure 4). More interviews are in progress to identify the difficulties in adapting their service. The Loop needs to be more reliable and to provide more frequent service.

Table 1: Disability transportation services offered at UC Campuses

<table>
<thead>
<tr>
<th>Campus</th>
<th>Independent</th>
<th>Assistance</th>
<th>Scheduling</th>
<th>On-demand</th>
<th>In-service</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC Berkeley</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

As a final student, my experience with the Loop system was a daily stress. However, the staff members were willing to meet our needs and even offer us an advance service to use the system. I do not have mobility issues, but I appreciate the level of support and service.

Table 2: Disability transportation services offered at UC Campuses

The Loop service is stand-alone in some cases and needs to be considered a part of a larger service. The Loop is an essential part of making campus accessible to all. - Mario Lázaro

History and Purpose

The Loops are in-demand and high-quality services provided to people with disabilities on the campus of the University of California, Berkeley. The service was created in 2001 as part of an agreement covering the campus area of the University of California Berkeley. The Loop is a physical barrier for people with disabilities and is provided by the University to provide transportation services for students, staff, faculty, and visitors with visual and auditory disabilities.

The Loops are committed to the provision of services to all students and employees with disabilities. The Loops are committed to providing services to the University of California, Berkeley, all employees, and visitors with disabilities. The Loops are committed to providing transportation services to meet the needs of all students and employees with disabilities.
Our group developed thoughtful collateral for Safer DIY Spaces, a group created in the aftermath of the Ghost Ship Fire to advocate on behalf of Oakland’s vulnerable DIY community. Along with a printed booklet including a pro-forma and demographic analysis, we produced a documentary and are in the process of building a website.

A 10 minute version of the documentary is available online.
MYTH BUSTING

"DIY spaces are dangerous."

Most DIY spaces are safe, but they’re not equipped with smoke detectors, fire extinguishers, or other safety devices that are typically found in commercial buildings. The risk of fire or other accidents is a concern, but with proper planning and safety measures, DIY spaces can be just as safe as traditional housing.

"DIY spaces barely exist in Oakland anymore."

While the number of DIY spaces may have decreased, they still exist and are being created. Many new DIY spaces are being built by people who are determined to find affordable housing options.

"DIY spaces are not a viable housing option."

While DIY spaces may not be a common option in Oakland, they are still a viable housing option for those who are willing to put in the time and effort to build their own homes. They can be an affordable alternative to traditional housing.

"The City shouldn’t be using its limited resources to preserve DIY spaces."

While the city may not have the resources to preserve every DIY space, they are still an important part of the city’s housing market and should be considered in any plans for future development.

DIY MANIFESTO

WE VOW to take the lead in preserving and expanding the DIY space movement as a fundamental right to create a sustainable and equitable housing economy.

WE ACKNOWLEDGE the role of social movements in the preservation and expansion of DIY spaces in Oakland and the broader Bay Area. We are committed to the continued cultivation of knowledge and strategies for creating and maintaining DIY spaces.

WE ADVOCATE for a non-punitive approach to code compliance. Building codes are a means to an end, and DIY spaces are inherently safe and sustainable.

WE RECOGNIZE that the city has a role in supporting and facilitating DIY spaces through various means, such as advocating for code changes and providing safety information.

WE SUPPORT the development of education and resources for DIY spaces, including workshops and training sessions.

WE CALL on city officials to provide support and assistance to DIY space communities, including funding and policy changes.

PROFORMA

What it’s doing: Disrupting the market

McGinnes has successfully acquired two small properties in the heart of downtown Oakland. He plans to turn them into commercial spaces, such as retail shops or offices, to generate income. The properties are located in bustling areas of the city and are expected to attract a lot of foot traffic, making them attractive investments.

The buildings have a total of 3,500 square feet and were purchased for $2.5 million. McGinnes plans to spend $500,000 on renovations, bringing the total investment to $3 million. He expects to sell the properties for $4.5 million in five years, earning a profit of $1.5 million.

The project is expected to create 15 permanent jobs in the city of Oakland. McGinnes estimates that the buildings will be fully occupied within 18 months, with tenants paying rent of $500 per square foot.

Surveys show that the demand for commercial spaces in downtown Oakland has increased in recent years, driven by the growth of tech companies and the development of new office buildings. McGinnes believes that the project will help meet this demand and contribute to the city’s economic growth.

SAFER DIY SPACES PROFILE

DIY spaces have been traditionally associated with crime and violence. However, recent studies have shown that DIY spaces can be safe and secure environments. The profile below highlights some of the key safety features of DIY spaces.

1. Community: DIY spaces are often located in established neighborhoods with a strong sense of community. This can help deter criminal activity.

2. Security: DIY spaces often have security measures in place, such as locks and surveillance cameras. These can help reduce the risk of crime.

3. Policing: DIY spaces are often monitored by local police officers, who are familiar with the area and can respond quickly to any incidents.

4. Enforcement: DIY spaces often have their own set of rules and regulations, which can help prevent criminal activity.

5. Education: DIY spaces often have educational programs for tenants, which can help them learn about safety and security.

6. Support: DIY spaces often have support networks, such as DIY space associations, which can help tenants stay safe and secure.

Survey findings

Survey respondents were asked about the safety and security of DIY spaces. The results show that DIY spaces are generally safe and secure environments.

Demographics

- Age: The average age of respondents was 35 years old.
- Gender: There were equal numbers of men and women (50%
- Employment: Most respondents (60%) were employed full-time.
- Education: The majority of respondents (70%) had a college degree or higher.

Employment

- Self-employed: 30%
- Work for a nonprofit or government: 20%
- Work for a for-profit company: 10%
- Out of work: 5%
- Out of work for a year: 5%
- Out of work for more than a year: 5%

Gender

- Male: 55%
- Female: 45%

Sexual Orientation

- Heterosexual: 55%
- Gay: 25%
- Lesbian: 10%
- Bisexual: 5%
- Other: 5%
What can the arts and humanities contribute to our understanding of cities? For the past seven years, with the support of a grant from the Andrew W. Mellon Foundation, the Global Urban Humanities Initiative has combined environmental design and humanities approaches in order to investigate urban life. CED faculty have co-taught courses with professors of art history, literature, music, rhetoric, and performance studies, using methods including literary and musical analysis, ethnography, photography, and mapping. Students have taken research trips to Guangzhou, Mexico City, the U.S.–Mexico border and have investigated neighborhoods in Oakland, Los Angeles, and along the San Francisco Bay shoreline.

In 2019, the undergraduate research studio, co-taught by Anna Brand (LAEP) and Bryan Wagner (English) traveled to New Orleans. Students researched and designed biographical and historical posters as “paper monuments” to replace recently-removed Civil War monuments in the city and interviewed residents about fighting displacement along the contested Claiborne corridor. The graduate research studio, co-taught by Charisma Acey (DCRP) and Ivy Mills (History of Art), traveled to Lagos, Nigeria. Students reflected on the complex ecologies, culture and spirituality of Nigeria’s largest city through sound recordings, photography, interviews and essays.

Art at Nike Gallery in Lagos taken by Ree Botts
Class photo at Nike Gallery with Profs Acey and Mills

Second Line parade on Claiborne Ave taken by Daniel Olea
Embedded almost entirely into New Orleans culture, voodoo was first introduced to Louisiana during the latter part of the 18th century while enslaved West Africans were being forced into the Americas. Along with their linguistic and culture, the enslaved brought their religion, voodoo, a form of spiritual practice, which would eventually merge with the dominating Catholic theology and give life to voodoo. Fabrication of the religion is misrepresented in pop-culture and media as a mysterious practice of conjuring or black magic. Although voodoo practitioners and believers are convinced their religion allows them to exist in harmony and maintain harmony with the spiritual world.

With regard to its Catholic roots, voodoo practitioners will seek the assistance of certain saints according to the type of help that the client is in need of. Saint Rita is recognized that everybody has a unique set of powers. One of these prominent figures is Saint Rita, who is prayed to fervently after having endured a demeaning relationship with her abusive and unfaithful husband, Pietro Mancini, whom she was forcibly married to at the age of twelve. Eventually, she managed to change him but it was not long before he was murdered by his enemies and Rita was left to raise their sons on her own. As a custom, one can perform a voodoo ritual to help a loved one return, or even to gain revenge on their behalf. Modern New Orleans practitioners claim that Saint Rita, in particular, became recognized as the figure for the battered wife and wronged mother.

That in mind, it comes to no surprise that she is widely recognized as the saint of the "impossible." As a result, many practitioners will pray to Saint Rita for a variety of reasons, with the most common being to a spouse who wishes to "win their love back." Their clients will often witness the practitioner trying to pay respect to a saint by means of anointing a candle, pouring a small ritual into a glass, or even praying. In some cases, the prayer will successfully be answered, and the client will often witness the healing or the return of the loved one. However, if the prayer is not answered, the client will often blame themselves as being the cause or reason to tilting the image of the saint. Many practitioners who claim to practice voodoo, should they prove promising or disappointing, will offer their clients a demonstration of the beauty that is associated with this long-existing traditional religion, that many New Orleanians are fond believers of.
This healing garden at Mission San Jose (Muwekma Ohlone occupied land) is a landscape manifestation of grief healing methods informed and guided by decolonized trauma theory (scan QR code). The sensitive emotional and political history of Mission San Jose cannot be erased but the healing garden attempts to amplify the needs of those historically silenced. The process of grief from both victim and oppressor can be met on the common ground of empathy when healing is the goal for the individual and the community.
This open-ended project prompted us to create a design focused on historical agricultural and water use on one and a half acres of land behind Old Mission San Jose. Through our design process we were to “make the invisible, visible” in the landscape. I chose to apply this phrase to the site’s challenging and often forgotten history. After colonization, indigenous food pathways and land management practices of the Ohlone people were nearly eliminated. I decided to help make invisible Ohlone food systems more visible by restoring the native landscape.

I researched edible native plants and management practices to create a planting plan design. The grasslands would provide opportunities for seed and root collection while the forest ecosystem would produce nuts, and berries for gathering. I identified the location of an onsite culverted creek and chose to restore the creek corridor. Ohlone people would be provided the opportunity to gather food, while informational signage would help visitors learn about Ohlone food pathways. Through this design process I learned that native landscapes are productive food landscapes. Designing spaces that are centered around native plant pallets helps to make indigenous histories more visible.
This project explores the pivotal and sacred role of water in the California landscape in response to our changing climate and unsustainable large-scale agricultural system. Intended as an educational landscape, this garden provides an alternative to energy-intensive irrigation and filtration systems by incorporating native ecology into agricultural areas and utilizing passive landscape design principles. By highlighting ancient water technologies, this project demonstrates a system of gravity-fed water transportation, irrigation, filtration, power generation, and storage that requires no energy input. The design emphasizes native and historically significant plants in the California landscape to develop a productive, medicinal, and regenerative garden that provides habitat and food to local wildlife as well as agricultural crops and medicinal herbs for use on site. This project is an attempt to apply principles of passive landscape architecture and ecology to illuminate and celebrate water’s generative potential.
Taking into account the traumatic history of the site, Body and Soul is a healing garden meant to help trauma victims reconnect with their body. I wanted the experience of the individual to lead the design, so I created comics to help understand the perspective of trauma victims. Traveling through the design, the user experiences different sections of the garden that corresponds to different parts of their body. In this way, users are encouraged to reflect on specific parts of their body, reconnect at a physical level, and approach their trauma in a safe and compartmentalized environment.
In redesigning the landscape of Mission San Jose, I was confronted with the site’s historical function as an oppressive system towards the indigenous Ohlone people. Through using the art of weaving, an important practice for Ohlone people, as a symbolic and thematic element for my project I designed a landscape to weave the history, ecology and program of the site together. The site plan is organized by ecosystems bands that run north to south across the site, and two paths and creek that move east to west down the site weave the ecosystems together.

On the left path the visitor explores and observes the various ecosystems. As the visitor finishes the observation path, they enter the Museum and continue onto the right hand educational path, characterized by the educational signs. Through an educational journey, the visitor understands more about the Ohlone knowledge systems and understanding that everything is connected in the landscape.
This studio project focused on the movement of water throughout the Mission San Jose site. Based on the surrounding watershed, my design is an agricultural timeline of the area. The plant palette is composed of species encountered on the site visit and plants that were historically grown at this mission for medicinal purposes. The visitor’s path was designed with this narrative in mind, and without altering the existing graveyards or the museum dedicated to the history of the mission.

A group of visitors begin their journey at the rain garden amphitheater where they are informed of the purpose of these improvements. The guests travel uphill, moving against the flow of water. As they walk, they witness the evolution of agriculture methods from the past (agricultural canals modeled after the Aztecs), present (a monoculture grid of olive trees), and future (a system of aquaponic tanks and produce). During this experience the visitor may discover that current water use and food production could be more efficient if we combined methods from the past with the technology of the present. This design also includes a small farmers market area facing the street to draw the interest of both consumers and farmers and to involve the public in the food growing process.
This project seeks to reuse dredged material that is removed from the Golden Gate shipping channel and around the bay to create a "soft" infrastructural armoring on Ocean Beach. As the sand machine is fueled, The O'Shaughnessey seawall is artfully deconstructed into a more sculptural form, a ruin to remind visitors of the engineering feats of the early 20th century.
Public parks reflect the values of the societies that produce them, and the climate crisis obliges designers to radically reconsider the formal arrangement and programmatic functions of parks. Moving beyond the romantic notion of parks as places for genteel recreation, modern parks can become sites to engage people in the public project of carbon drawdown.

Alarmingly, the way that we currently build parks emits more CO2 than projects sequester. This fact is particularly heinous given that the primary medium of landscape architecture, vegetation, is a carbon-sequestering powerhouse.

This concept diagram outlines the conceptual basis for the planting design and management systems underpinning the Civilian Conservation Park design. As a whole, the design leverages trees’ sequestering capacity by timing planting, thinning, and harvesting so as to maximize carbon drawdown. Seedlings are planted and cared for by Urban Conservation Corps staff, predominantly women and people color, two key demographics sidelined by the original New Deal social programs. After dense field planting, excess saplings and poles are donated to local environmental justice groups to distribute to under-served communities in need of urban canopy cover. Finally, mature trees are harvested at peak sequestration and incorporated into park features such as wooden boardwalks, benches, and elevated lookout towers. This process then repeats itself, creating a dynamic rotational matrix of meadows, young plantings, and mature forests in the park.
Envisioned as the Central Park of the West, Golden Gate Park was an anchor for a hopeful city in the outside lands. Through feats of engineering, design, and planning, the park continues to serve San Francisco and the Bay Area nearly 150 years later. With just over 1,000 acres of public land, the park was filled to the brim with programmatic elements, evolving to satisfy changing desires and values. Despite grand efforts to complete its destiny, Golden Gate Park terminates at a coastal threshold recognizable to first-time visitors as arriving at the Pacific Ocean. This project attempts to stitch the two together using an axis aligned with an autumnal sunset manifesting at first as a bridge and then as a pier. The western edge of the park is offered a significant highway realignment, a landmark building buried in the landscape, a rearrangement of treasured park amenities, and a phenomenological experience enjoyed today only by local city dwellers. The plan recalls a graphic expression long ago vanished, acknowledging the character of an original vision of Golden Gate Park and contemplating its future.
How do we bring the fourth dimension into the way we represent the landscape? Animating traditional 2D representations opens up a relatively unexplored realm of landscape communication. This speculative project explores the tension between the designer’s desire for clarity and the unpredictable nature of all landscapes.
As climate change shifts the regional distribution of plant and animal species, this project asks how urban landscapes can facilitate the migration of plants, rather than acting as barrier to it. In keeping with theories of socio-ecological resilience and urban landscape ecology, this project proposes that changes to the spatial configuration of urban habitat can increase ecological connectivity, human involvement can be reframed as a boon to urban plant communities, and that these goals should be part of a metropolitan strategy for improving ecological resilience to climate change.

I investigate strategies that could be implemented in urban landscapes, focusing on the Sacramento metropolitan area as its study site and a suite of focal plant species as the basis for design – primarily the valley oak, *Quercus lobata*. Future ranges for these focal species are modeled to project their migration trajectories and the associated climate velocities. A comparison of modeled velocities against the dispersal capabilities of the focal species reveals that three of the four focal species will likely be unable to migrate quickly enough to track their climate niche. Together with detailed mapping of the existing habitat network and urban conditions in Sacramento, these I apply these future trajectories to identify potential migration routes through the metropolitan area, as well as sites for trait-based assisted migration. Habitat design strategies for the Sacramento metropolitan region translate these migration routes to spatial frameworks. I use circuit theory to identify sites of potential connectivity, and test these frameworks against existing connectivity and against each other using graph theory. A final optimized plan applies aspects of each strategy to maximize connectivity. Assisted migration is a critical aspect of this plan, acknowledging my finding that migration will fall short of climate velocity. At the human scale, this project catalogs and visualizes strategies that facilitate colonization of habitat landscapes by the target species. Together, the habitat master plan and site strategies offer a vision of an urban open space network that supports and protects regional biodiversity in the face of climate change.
Aquaculture, the cultivation of aquatic organisms has grown rapidly in recent decades. This shift in production is attributed to the stagnation of wild-capture production, combined with increased demand for seafood. Most aquaculture operations are conducted in natural bodies of water, and can negatively impact the environment if managed ineffectively. I explore how a remote sensing-enabled decision support system can be applied to the monitoring and management of marine aquaculture in the Greek sea space. The scale and intensity of the marine aquaculture industry in Greece presents the opportunity to evaluate the effectiveness of this environmental management framework. 248 marine finfish farms were identified over 483,394 km\(^2\) of sea space, often in remote locations. This system, referred to as Sea Warden, combines several remote sensing, data processing, and ecological modeling techniques to locate marine finfish farms, estimate production capacity, and estimate environmental impacts relating to aquaculture waste emissions (feces and uneaten food). This system is intended to support the sustainable use of the marine environment via routine, system-scale assessments of all marine finfish farming activity in Greece. This capability has potential to make possible the efficient enforcement of aquaculture regulations relating to location adherence and allowable production limits. While some limitations exist, this approach is a promising solution towards supplementing existing monitoring efforts in a transparent and cost-effective manner. With sources suggesting that farmed finfish production in Greece is planned to double by 2030, the capability to efficiently monitor and manage the nation’s marine aquaculture industry at system-scale is likely to prove valuable.
Can Los Angeles See it has Driven Past its Tipping Point for Pollution?
This was my final project for LDARCH 1, in which we were asked to conceptualize an imaginary machine that solves an ecological problem. I decided to address the issue of Colony Collapse Disorder through the "invention" of a device that produces honey, bee "music" through buzzing, and encouraged the continuous reproduction of bees (hence the title "A Symphony of Bees"). The design is meant to celebrate the marvel that is the honeybee. Some considerations included materials and planting used, orientation, and how this machine would work diagrammatically.
Framed in the context of a Cartographic Representation course, this project is an experimental look at building an analytical framework for evaluating the state of women's reproductive health and education as a decision-based form of population control. While the United States' population is essentially stable, the data availability in the US allowed for experimentation on how to build nationwide scoring assessment as well as an argument for feminism framed in the climate discourse to inform possible application of such methods to developing countries experiencing exponential population growth and gender inequality.
Where should we prioritize resources to create equitable and comprehensive access to women's health and family planning services?
ArcGIS spatial analysis program was used to map the City of Berkeley with the goal of identifying the most suitable corridors for conversion to car-free streets. Similar to the car-free Market St. in San Francisco, the proposed corridor in this project would prioritize alternative transportation while allowing public transportation, deliveries, and certain taxi companies to use it. The final map identified Telegraph Avenue directly south of campus would be an ideal street for conversion. The GIS methods used to map this out included: Triangulated Irregular Network (TIN), Suitability Analysis, and Network Analysis.
The Oakland Coliseum site creates a unique opportunity to advance strategies that engage the East Oakland community to the bay shore and mitigate growing environmental concerns of groundwater and sea-level rise. The design strategy outlines four guiding principles: memory, economy, connectivity, and nature. The design preserves the memory of the site’s athletic history by establishing SOM’s Oracle Arena as a central landmark to promote future economic expansion, while also engaging the industrial presence of the region. The expanded street network connects the east Oakland community to the water’s edge through a land bridge over the I-880 highway. At the same time, the revitalized stream system engages public use and mitigates water inundation through a series of living levees and retention ponds. The central green spine bridges the community towards the bay, bringing to life the four guiding principles of the design strategy.
San Francisco Central Waterfront site combines the fine-grained scale Dogpatch District and the large-scale warehouse and industrial buildings along the waterfront. Much of the proposed development is infill and urban repair, extending the street grid and creating a new canal to connect Third Street to the water at 23rd St. Proposals include a new outboard sea wall similar to that in Lisbon to protect from sea level rise as well as creating a new waterfront destination at Pier 80.

The main spine of the site –3rd Street–was originally a long bridge connecting the south with downtown during the Gold Rush. Good part of this site is on the new land that made possible to build industrial facilities on Pier 70. Dogpatch neighborhood is mainly composed by very typical row-houses, and small PDR businesses. This site is characterized by the contrast of small houses and big industrial facilities. Industrial structures that are historical but preventing the community to reach the waterfront. The main design strategies are Re-shaping the Waterfront, adaptive Reuse, and create green infrastructure.
The vast size of Alameda Point offers the opportunity to build a small town on the former air station runways. The plan extends the formal layout of the existing base with a linear spine on axis with downtown San Francisco across the Bay. Two new BART stations are proposed together with an aerial tramway to West Oakland. The new street grid incorporates canals and a network of parks to give identity to the different neighborhoods. Wind turbines and agricultural fields line the Estuary. Proposed land uses include housing, retail and schools within each neighborhood. The plan retains the diagonal alignment of the main runway as a memory of the former air station.
BeSmart: Smart Campus Solutions’ is a consulting firm that provides services to University campuses in order to holistically upgrade its infrastructure and take measures in multidimensional fields to improve their interaction with the campus community at various levels. BeSmart creates Smart Area Plans (SAP’s) that engage orthodox campus spaces with sustainability, design, innovation and feasible technology in order to enhance the experience of the students and all other members of the campus community. BeSmart strongly values the importance of student voice and community engagement hence, there would be a student division of BeSmart that would have initial interaction with the project and selected sites. The Student Management Committee formed would also direct an annual event/competition in order to maintain the engagement culture and involvement of students in multidimensional fields of planning, design, architecture, sustainability, engineering, art, data analytics and economics. The benefits and savings would also be documented in the process.
**PROVISION OF SERVICES**

The project cycle phase will be kick started by the VP of projects. Who identify the site in consultation with the university for the Smart Area Plan (SAP).

Recruitment phase 1 - analyse requirements & there will be allocation of roles from different fields.

Recruitment phase 2 - Recruitment of the student division. This would decide the management, committee and the selection of student from multiple disciplines.

Shortlist - Students will be shortlisted and chosen through the structured rubric of BeSmart in order to ensure maximum productivity while ensuring the team talents are across diversity and inclusivity.

Training Phase - Train and encourage ideation while conducting project briefing.

Once the SAP is developed for the execution phase, the analysts will be working full time with required space inspections and evaluation for project fulfillment.

The management committee would then create logistics and details around conducting the ‘Berkeley Plan’.

**COSTING STRUCTURE**

<table>
<thead>
<tr>
<th>Scenario 1</th>
<th>Scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Consulting + Briefing + Project Execution + Report</td>
</tr>
<tr>
<td>Delivered</td>
<td>SAP of Client, Student Engagement, Club Formation + Consulting and Project execution</td>
</tr>
<tr>
<td>Cost</td>
<td>Contribution in execution of first annual event: $35,000 + Inc + Meals outside of meals and taxes</td>
</tr>
<tr>
<td>Time Period</td>
<td>1 Semester (including events) + Ongoing support up to the project completion</td>
</tr>
</tbody>
</table>

Typically, 15% of total project cost = $20,000 (Base Price) + Meals for Large Projects

Click here for Complete Proposal
Windcatcher is a large kinetic sculpture designed by Dezino, a student design cooperative at U.C. Berkeley. Wind propels the sculpture’s fins through an elevated ring, creating a fluid visual experience. Bikes attached to a plinth at Windcatcher’s base can be mounted and powered by observers. When a participant pedals a bike, they work in tandem with the wind, and the entire sculpture begins to rotate about its vertical axis. Submitted as part of the BRC Honorarium Program.
Dialogue as Research: Preliminary assessment for environmental planning purposes: A content analysis of cross-disciplinary knowledge to inform design processes, policy and interventions related to groundwater emergence due to sea-level rise in coastal plain landscapes. The case study of Oakland City, California.

Diego Romero Evans is an architect with professional experience in academia and practice. Currently, he is graduating from the Landscape Architecture Environmental Planning master’s program at the College of Environmental Design at UC Berkeley. His master’s thesis maps visualize and seeks to understand physical and socio-ecological vulnerabilities/opportunities in the interplay of shallow groundwater emergence due to sea-level rise in anthropogenic urbanized coastal cities. His chair advisor is Dr. Kristina Hill.

Groundwater emergence is relatively new in the sea-level rise complex phenomena. How can design and policy tackle this problem in an interdisciplinary way? Diego’s thesis approaches this question by using dialogue itself as a research method/project. He is interested in how people across disciplines and levels of expertise perceive the relationship between rising sea-levels and shallow groundwater. Methods involve online surveys to students, faculty, practitioners, and the public, as well as in-person interviews with experts from a range of disciplines including, but not limited to Science, Engineering, Design, and Public Policy, in order to understand how in the uncertain context of climate change they prioritized some variables as concerns to address this problem moving onward.
This project took examples of ordinary objects that had been scaled up as roadside attractions — the World's Largest Things. We then found the analogous objects and recontextualized them as representations in miniature.

The six dioramas track a family road trip halfway across the states. The miniatures portray a childhood memory associated with each place, with varying levels of nostalgia for the objects themselves.
Rising ocean levels and the near-ubiquitous response across design fields to solve this issue with an intervention to the urban fabric introduces a unique and topical design space. Should architecture combat or greet rising waters? Is flooding a disaster or source of beauty? Is waterfront property abandoned, or clad in durable materials?

The Ark proposes a reactive architecture that attempts to preserve urban fabrics at risk of flooding while simultaneously expanding and exciting existing spaces. The concept is simple. Create a bridge that expands under gravity when water levels are low, creating valuable public space; and folds closed under high tide water pressure, preserving passages of movement.
Technology is constantly and effectively altering society as we know it. This is also true of autonomous vehicles (AVs) that are expected to significantly change our modes of transportation. Tech companies, transportation engineers, planners, and designers have united in the quest toward autonomous urbanism. This juncture of automotive history and technology is truly a turning point, and environmental planners and designers can have a demonstrable impact in creating a more livable city.

The different nature between AVs and current mobility modes gives us the potential to alter our urban landscape.

There will be changes in future transportation, land use patterns, and ecological issues, either in a positive or negative way. In an optimized scenario, better and safer mobility will emerge. The smaller fleet size, lower number of required parking spaces and narrower fault-tolerant space will create potential for new development or recreational and ecological use. On the other hand, lower driving costs could result in boosting vehicle miles traveled (VMT) and further urban sprawl. Future streets might have more traffic even with less cars, eventually worsening the suitability and livability of urban life.
In the planning and design disciplines, some studies have been conducted on the feasibility and viability of AVs, and their impact on city life. Many believe encouraging subscription-based service, or shared autonomous vehicles (SAV), instead of purchasing private vehicles is the key. Relevant policies and design principles, like prioritizing pedestrian, are made. These earlier studies have raised important questions regarding how to sustain a livable city. However, only limited number of studies are grounded in specific site. Since future autonomous urbanism is not created from scratch but transformed from the existing cities, those studies neglect the current condition, and meanwhile miss the opportunity of improving urban design issue through future street design.

This study is built on these researches, taking the research findings into a design proposal. Using urban design in San Francisco as a practical experiment. Existing guiding policy and on-going projects study ground this project’s feasibility. This study generates ideas on how AVs can be a catalyst for improving existing issues in the built environment, especially street space.

The 61-acre area near San Francisco Civic Center and SoMa districts provide site for this study. This area has many SAV-related characteristics in terms of transportation and of increasing importance in the city. Besides, San Francisco’s two distinct street grids meet inside the study site. The dramatic change in street patterns brings both uniqueness and chaos to the city. Thus, this site is desirable as test field of autonomous urbanism and generate experience for the city.

This proposal is for a fully autonomous age and stand for a shared mobility scenario. It rethinks priority assignments in street planning and design. It reclaims automobile-oriented streets for walking, active mobility. Meanwhile, it promotes transit and shared autonomous vehicles to ensure traveling needs. Furthermore, a system of mobility hubs within walking distance are proposed for the increasing need. The fleet size and parking space reduction benefit from SAV makes the reversed hierarchy possible.

The first chapter is literature review on relevant research that provides a prediction of potential AV impact on the city. In the second chapter, existing transportation, land use, and demographic data of the site are analyzed. In the third chapter, design proposal for district-scale and the street-scale site shows how can we better prepare for future urbanism. The forth chapter is conclusion, providing takeaways and suggestions.