Zijing Chen (Landscape)  
Suzhou, China

Veronica Alatorre (Architecture)  
Monterrey, México

Daniela Orellana (Architecture)  
Guayaquil, Ecuador

Sean King (Landscape)  
Baltimore, Maryland

Zhuping Li (Architecture)  
Guangzhou, China

Eshana Masud (Architecture)  
Dhaka, Bangladesh

Asma Boutrick (Architecture)  
Algiers, Algeria

Amalia Carmona (Architecture)  
Lubbock, Texas

Jaime Varas (Architecture)  
Valparaíso, Chile

Wenjie Wu (Urban Design)  
Beijing, China
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3 closing remarks
Although the Berkeley Master of Urban Design program began only in 1993, urban design education has long played an important role in the College of Environmental Design. For many decades architecture faculty such as William Wurster, Richard Bender, Vernon DeMars, Charles Moore and Donlyn Lyndon added important urban dimensions to their work while planning faculty such as T. J. Kent, Jr., Corwin Mocine, Sidney Williams, and Francis Violich took a physical approach to city planning. In the late 1960s Donald Appleyard and Roger Montgomery joined the College, followed by Allan Jacobs in the 1970s. Many of these professors had appointments in several departments, allowing them to work across disciplinary lines.

Like the field of urban design, the program has continued to evolve over the years. Throughout all these changes, certain things have remained constant, such as the multidisciplinary nature of the program, governed by a faculty committee from the Architecture, Landscape Architecture and Urban Planning departments. The program continues to maintain a strong connection with professional practice, drawing lecturers and reviewers from local firms. In recent years, the program has attracted a highly diverse group of students from around the world who, bringing their knowledge, experiences and questions with them, have added a richly global dimension to the program.

Currently, Urban Design as an academic discipline and a professional specialization faces a vastly expanded set of challenges. Urbanization has become planetary, calling for new scales of intervention, far beyond the city limits, as suburbs, rural and even wilderness areas are shaped by development. At the other end of the spectrum, small, human scaled projects have taken on a new importance. Uneven urban development raises complex questions of how to balance global trends with highly specific local demands. Designers are confronted with contradictory urban dynamics that produce both enormous mega-cities and declining “shrinking cities.” In all of these circumstances, designers now must also address environmental problems that are inevitable outcomes of climate change. These issues include pollution, energy use, sea level rise, loss of biodiversity and many others. Social inequalities add another important set of concerns with equity an increasingly important issue.

This year’s final advanced design projects fit into this enlarged arena, demonstrating a global reach as students take on challenges in a multiplicity of settings in urban, suburban, rural, and wilderness sites in North America, Asia and Africa. The groups they propose to serve range from Bangladeshi women to rural Tanzanians to midwestern suburban immigrants, even including non-humans like bees. Some students focused on excavating the existing qualities of their sites, while others introduced radical new technologies, including non-place technologies such as social media. Whatever their site or approach, all of the students took on demanding issues that pushed the boundaries of urban design. Congratulations to you, MUD class of 2020, for your courage, thoughtfulness and creativity!
The Haitian Trail:
Establishing a pilgrimage route laying the foundation for future development.

Site Location: Haiti  |  Advisors: Margaret Crawford + Christopher Callot

Due to its persistent struggles, Haiti is commonly identified as being in a constant state of emergency and continuously needing assistance from NGOs. These forms of aid are sometimes intertwined with economic interests and political agendas that do not serve local priorities. Haiti has a complicated history, which has been exacerbated by continuous international intervention. It currently suffers from major environmental and economic problems.

The reason for addressing this issue started when I considered the global crisis that occurs when proposing development in vulnerable settings. There is an enormous struggle to provide fast, cheap, and massive developments that are also sustainable, resilient and just. This issue is extreme in Haiti, the poorest country in the Western Hemisphere. There, the struggle between development and preservation is a constant debate.

The goal of this thesis is to alleviate some of these tensions by designing a National Pilgrimage Trail for Haiti. This project takes a holistic approach, linking existing places of worship with other places where future development and local activities can occur. This ‘linear intervention’ prioritizes local and market realities and addresses them by synthesizing religious movement and development within a natural setting.

My approach was to use research to identify the path of the trail and then define how it could create guidelines for future development. The route is the main tool to justify the location of future services. I introduced a new physical and visual landmark that can expand to hold different services. In different places along the trail, depending on the context, the landmark can be transformed, acting as a way finding tool that stitches places together to create meaningful nodes.
The main action undertaken was the research to define the path of the trail and how this could act as the guideline for future development. This route works as the main tool that justifies the location of future services, therefore, a new landmark that can expand to hold different services is also introduced. This landmark transforms depending on the context and acts as a way finding tool that stitches places together to create meaningful nodes.
TOPOGRAPHY OF HAITI

Points of interest:
- Fort Piccolet
- Cap Haitien
- Quartier Morin
- Caracol Park
- Bahon
- Merchand Dessalines
- Fort Culbute
- Mirebalais
- Saut D’Eau
- Port Au Prince
- Furcy
- La Visite National Park
- Jacmel

North section:
- Fort Piccolet
- Cap Haitien
- Quartier Morin
- Caracol Park

Central section:
- Bahon
- Merchand Dessalines
- Fort Culbute
- Mirebalais
- Saut D’Eau

South section:
- Port Au Prince
- Furcy
- La Visite National Park
- Jacmel
In order to bridge this gap, my project redesigns the physical spaces of Dilemma Lands in order to invite both parties to engage with one another.

By injecting character into the Dilemma Lands and opening them up to the public, they become places of friction. This tension encourages a process of participation and interaction with the design. On the southern edge of Minneapolis, the Dilemma Lands are connected through a corridor along the Minnesota River. A series of interventions that juxtapose stereotypical Minnesotan activities and building scales aims to contradict their current state. As a result, this project imagines various alternatives to supplement the current absence of suburban identity and considers the many ways in which different individuals may come to coexist and grow with them.

Dilemma Lands:
Reconsider the suburban experience in the Twin Cities

Site Location: Shakopee / Minneapolis, Minnesota | Advisors: Chris Calott + Julia Grinkrug

This thesis proposes a new approach for looking at Urban Identity. It explores the relationship between suburban growth and the socio-economic phenomenon of the reverse commute, both in terms of commerce and leisure. The discontinuities between the initial intentions behind the places explored here and their current interpretation lead to inefficiencies in use. Thus, these spaces are in a state of dilemma, these Dilemma Lands are ill-defined places that are ripe for re-definition. They are currently underutilized because of their strangeness but in reality are excellent places to reconsider the suburban experience.

In the Twin Cities, this dilemma is embodied by the conflict between those looking for a change and the homogeneous and conservative suburban culture. In fact, the gap between the progressive downtown Minneapolis and the expanding horizontal Metropolis continues to grow.
8 | the projects

Safe Protest - Highway Installation

Section at current highway

A platform creates a visible landmark element on the highway

Visible signage for crossings

Unbound Education - Summer Camp

Section through summer camp

Service Hut

The Workshop Hut

Waterfront Trail

Remove fencing & replace with green strip

Unbound Education - Summer Camp

Section through Ski Hill

Savage: Old Downtown

Burnsville
Sanitary Ski Hill

Activity Center

Heavy Industry

Gas recovery system

Protective liner

Protective clay cap

Recreation for All - Landfill Ski Hill

Minneapolis

River

1 mi / 1.7 km
ASMA BOUTRIK

I believe this power starts from access to information and education, and that this can enable efficient use of resources. My role as an urban designer is to design those spaces, buildings, the sub-systems (power & water), and direct them to create growth. This will enable self-reliant economic growth, support local entrepreneurship, expand educational opportunities, upgrade agricultural innovation, and trading productivity.

The project is physically based in a regional town center in the Njombe region with satellite centers in surrounding villages. East Africa is an appropriate site since there is a culture of technological leapfrogging, a scenario in which communities leverage new technologies to rapidly adapt and evolve. This phenomenon creates an atmosphere suitable for transformative intervention. I use Afro-futurist imagery as a way of connecting the local with a global technological future.
Fig 88 Aerial View: The pieces of this framework come together to provide a central infrastructure that defines the area for the new center and allows for organic growth.

Njombe Town
The Wi-Fi tower and institutional center becomes the anchor for a new market and transit area, pulling its figural form from the cosmic radial beams of Afro-futurism and connectivity radiation, where the center becomes the mothership and allows for community growth. This 30-meter high tower provides a mesh-network that is supported by solar energy. This low-cost, low-energy system will be built by locals and be an informational tool that gives power to the people to create their own development.

The water collection system requires a sustainable prototype for development and growth. The main collection area is the highest zone of the plaza with the main reservoir integrated into the tower. The catchment areas are in the lowest elevation, integrated with the open green spaces with the Internet for public use. The water is collected and cooled by the wind to provide passive cooling by the wind to provide passive cooling for the servers and the return hot water can be recirculated for use, creating a close loop that supports various functions.

Solar panels on the roofs of the main building will provide power to the mesh network and central functions. The panels can be incrementally integrated with the emergent street market, covering an area of approximately 12,000 sq. meters and generating enough power for current and future phases of development. The total power generation could reach 3,600,000 KWh/year given that the local PVC panels generate 300 KWh/sm per year, which is the power required for a 72,000 sq. meter building on an annual basis.

The transit, located at the entry to the center, connects the villages and cities. Along this spine is the market and plaza, which are delineated for future development. The market will be defined by armatures that provide power sources for traders to plug into and appropriate the space for their needs. This structure can support the solar panels that allow for future expansion.
Urban Code-Switch: A landscape of exchange in the US-Mexico Borderlands

Site Location: Puerto Palomas, Chihuahua + Columbus, New Mexico  |  Advisors: Chris Callot + Scott Elder

Code-switching describes the act of customizing speech or language to the audience being addressed; however, people who live in multicultural communities code-switch not only linguistically, but spatially. Culture, identity, and experiences influence the way we move through the built environment. These factors shape how we interact with space, share space with others, or modify space to meet our needs. This thesis poses the question: how can the action of code-switching influence spatial design thinking to generate a new trans-border experience in the US-Mexico borderlands?

The ‘borderlands’ are an environment of conflict, between languages, cultures, and nations. This dichotomy results in a hybrid-experience, a “synthesis of duality, a third perspective.” A landscape of exchange characterizes this amalgamation as everything, from commodities and resources to privileges and people, flow across the border.

This condition is not an all-encompassing event sweeping across the borderlands. Rather it is a series of unique and nuanced occurrences of singular crossing points in relation to the landscape and the community they are situated in.

This thesis proposal presents a design strategy that synthesizes the systems of flows and exchanges with the spatial landscape of Puerto Palomas, Chihuahua and Columbus, New Mexico. The sprawling Chihuahua Desert separates the sister-cities, creating a three-mile divide between the communities. The proposal emerges from the need to activate the spatial divide by catalyzing the diverging flows of water and dust across the expanse. Through a series of interlinked interventions, the approach subverts the political realities of the region and engages the communities to participate in a new landscape of exchange.
XL Scale: The Dust Migration

L Scale: The Water Management

XS Scale: The Constellations

M Scale: The Border Hinge

S Scale: The Acequia Network

terrestrial strategy

territorial strategy

urban strategy

urban code-switch

Columbus, NM

Palomas, CH

XL: Dust Migration

L: Water Management

XS: Constellation Network

S: Acequia Network

M: The Urban Hinge
XL | the dust migration
The bi-national dust migration will be mitigated through seasonal grassland plantings that balance the local agricultural harvests.

L | water management
The existing arroyos are channeled into an underground system that collects and guides the water towards harvesting cisterns for collection and community use.

XS | the constellations
A series of XS design moments connect the invisible dust and water features of the site. These moments allow for human scaled engagement with the territorial flows that freely cross over the political demarcations.

Legend
- Dust Migration
- Watershed - Existing
- Water Management
- Constellation Network
- Water Harvesting Cistern
- Grassland Plantings
**Circulatory Framework**
At-grade circulation occurs within a country and below-grade circulation occurs between countries.

**Hydrological Framework**
New street acequias improve the micro-climate conditions at the existing crossing and connects to the secondary crossing and harvesting cisterns.

**Programmatic Framework**
The Academic District: NMSU + UAC

New Mexico State University + Universidad Autonoma de Chihuahua

- Educational:
  - Clinical Psychology Department (NMSU)
  - Educational Innovation (UAC)

- Economics + Human Rights:
  - Economic Development Extension (NMSU)
  - Human Rights Advocacy (UAC)

- Regional Hydrology + Ecology + Meteorology:
  - Agriculture, Consumer, + Environmental Sciences (NMSU)
  - Ecological + Environmental Engineering (UAC)
Urban Pollination: Rethinking Sacramento as a New Bee City

Site Location: Sacramento, California | Advisors: Harrison Fraker + Louise Monzingo + Julia Grinkrug + Eric Reeder

Native bees provide not only incalculable value for human society by pollinating crops and flowers, but also play an important role in maintaining the function of the whole ecosystem and biodiversity.

In order to mitigate the habitat fragmentation and the lack of adequate native pollinators due to mass urbanization and mono-cultural agriculture production in the Central Valley, this project will create new habitats for native bees, while providing spaces and activities for people to observe, learn and interact with the native pollinators.

Focusing on Sacramento City and its surrounding farms, this project will involve different parties in the region, proving multiple approaches and scenarios. Strategies include a long-term peripheral corridor along highways I-5 and I-80, the redesign of the Capitol Mall as a demonstration area, infrastructural interventions and mapping stewardships.

This project aims to not juxtapose human and non-human within an urban context but to let them connect and benefit each other, while making the capital a more resilient, sustainable and bio-diverse city.
Tower Bridge
Rail yard Development
American River Parkway
Crocker Art Museum & Park
Capitol Building & Park
South side Park
Trees and shrubs that are suitable for foraging should be planted along the river bank and highway medians, where there is limited pedestrian access, to ensure the habitat connectivity while at the same time protecting people who are allergic or afraid of bees.

Existing open spaces and parks will be designed to be habitat patches. New facilities, such as bee houses, and relevant re-landscaping is required.

Government buildings will be able to implement green infrastructures as an exemplary action.

Proposed building for habitat maintenance and event curating agencies.

Elevated platform for educational and recreational purposes.

Public Installation
- Flower Archway
- Street Light with Flower Basket
- Street Plant
- Bee/Bird Baths
- Manufactured Bee Planter
- Green Wall
- Green Roof

Vehicular Circulation
Light Rail
Pedestrian + Bike
Shared Path
Platform / Pedestrian only

Government buildings will be able to implement green infrastructures as an exemplary action.
Strategy 1
Reduce the vehicle land by half

Strategy 2
Make the central lawn into a habitat strip, with a bioswale in the center and nesting bare soils exposed to sun light.

Strategy 3
Build up an elevated platform for human interaction and a storm water system leading the filtered runoff water to the Sacramento River.
**Urban Resilience & Informality:**

Catalyze industry upgrade and culture heritage in urban villages through social media

Site Location: Kangle Village, Guangzhou, China | Advisors: Peter Bosselmann + Margaret Crawford

In times of rapid urban expansion and transformation, informal settlements have become an increasingly global urban phenomenon. Because of the formal city's incapacity to satisfy all of its residents basic needs, many people's only alternative is to live outside the regulations. In some ways, planning creates unplanned and formality creates informality.

Thus these informal settlements work like a sponge to absorb all the demands and issues that spill over from the city. They function to protect both its residents and the formal city from uncertainty and inadaptability during urban transformations.

My goal is to emphasize the key role these informal settlements play in creating an entire urban resilience system and to analyze the diverse possibilities that could occur there due to their unique histories and situations.

Based on my research about spatial justice, social stratification, and distinctive informal urbanization in Pearl River Delta, I choose Kangle village in Guangzhou as my site. In order to preserve its affordable living environment, I upgraded and catalyzed local industry, recalled its collective memory, responded to the natural environment and made sure that every group had access to engage in this process, all improving its comprehensive urban resilience.
Open Space System
Build open space systems that can service both original villages and migrant workers. Focus on waterfront space and build bridges between 2 sides to connect all education resources.

Public Space System
The public space system will protect cultural heritage and folklore. Ancestry still plays an important role to connect people; thus the view is opened towards it, from the other side, to bring a sense of ceremony back to the site.

Education System
Education systems include a worker training center and a fashion design school, one for designers and one for high-tech workers.

Online Sales System
Photography Spots
Online Sales System
Ins-Famous Spots
The key to building an ins-famous place is to extract local features then romanticize and exaggerate them. This will attract influencers’ attention and investment, giving a chance for future industry upgrade.

Offline Sales System
Commercial Street
Offline Sales System
Pedestrian Street
This strategy provides a comfortable shopping experience and sensible products for businessmen and customers.
**Handshake Alley**

- **Main Entrance**
- **Traffic Alley**
- **Mixed Residence Industry**
- **Commercial Entrance**
- **Family Workshop**
- **Camera rental store**
- **1F Retail**
reconstruction strategy of workshop groups

- original workshop group
- transfer temporary roof construction into transparent photography studio
- embed live streaming room into workshop building
- build watchtower in middle of this group to connect the function

connection

exhibition

promotion
Climate change presents an additional threat to populations already exposed to environmental and social injustices that impact livability and access to services. The Central Valley and surrounding areas of dispersed urbanization are projected to grow in both population and diversity in the immediate future, so providing benefits to local communities must be a priority for the state.

My thesis proposes a regenerative energy model at the neighborhood level, including reallocating existing public streets into production corridors for renewable solar energy to be distributed into adjacent blocks. At the district level, the Sunset Oleander community of Bakersfield becomes a site for district-wide renewable geothermal energy. An existing freight rail yard and brownfield sites throughout the community that borders downtown are converted to address degradation and pollution exposure. These solutions offer a framework for energy reliance that can be implemented at the larger city level.
California Power Grid
Community Energy Hub
Land area energy projections in acres:
California (2015 study): 975,000
Central Valley City (2020 census): 10,000 *Bakersfield, CA

Central Valley Focus
City Level / Renewable Energy
- Solar
- Biofuel
- Geothermal
- Wind Turbine
- Solar Array
Energy Regeneration
*Co-Beneficial Sustainable Network

Proposed Urban Form
*Complimentary growth

Existing Pattern
*Urban Isolation

Proposed Land Use
*District clusters

Open Space
*Green infrastructure

Existing Pattern
*Urban Isolation

Campus Section

Kern River

Focal Intersections

Movement Corridor

Market Corridor

Production Corridor

Downtown

Community Energy Zone

Aqueduct System

DISTRICT LEVEL ACTIONS AND FOCUS
Bakersfield
Retrofitting Stability:
Building a riverside community infrastructure to empower self-dependency of rural women in Bangladesh

Site Location: Meghna River Belt, Bangladesh | Advisors: Harrison Fraker + Julia Grinkrug + John Ellis

The financial livelihood of women residents in the rural areas of Bangladesh have long been ignored. Due to the social ideologies in those communities, where the male members of the family are primarily responsible for the household income, this situation limits women’s ability to support themselves, be it economically or socially. In addition, there are few available work opportunities that would allow these rural women to be financially independent.

Change, however, is already afoot. Currently, young rural women are moving to cities to find jobs to help provide for themselves and their families back home. A significant amount of these women end up working in the RMG (ready-made garment) industry where the majority of the overall workforce are female.

This expanding marketplace provides a high availability of jobs (since labor is cheap in Bangladesh) and doesn’t require a major educational background. The prospects of this type of employment continuously adds to the population flow into the already dense capital city of Dhaka. Few of these women move because they want to experience the city life, but because they have no job options in their hometowns. In order to address these issues, my project provides these women with new economic opportunities.

The vision is to create a multi-functional communal system that will provide rural women a series of spaces where they make use of the abilities in craftsmanship that they already possess, encouraging them to create and sustain a livelihood of their own.
Sections: River access systems

- Natural Landscape at 5m
- Below 5m Steps
- Fill above 5m
- Above 5m Floating dock
- 8m Levee
- 7m Fixed Pier

Existing parameters:
- Roads ending near a river bank
- Ferry terminals
- Ferry route

Locations:
- Narsingdi
- Raipura
Proposed layout of linear street typology

- School
- Trade Institutes
- Workshops
- Admin/NGO/Banks
- Hospital
- Mosque
- Retail/temporary stalls
- Main road
- Pedestrian road

Market Stall

- School
- Courtyard
- Hostel

Public transport station

Detention ponds

Exhibition area

Ferry station

Path to agricultural fields

Proposed layout of linear street typology
Unlocking the Santa Fe Dam:
Spanning Infrastructure and Strengthening Communities across San Gabriel Valley, CA

Site Location: San Gabriel Valley, CA | Advisors: John Ellis + Harrison Fraker + Margaret Crawford

The Santa Fe Dam, located in Irwindale in the San Gabriel Valley, is a flood control structure built in 1941. Even though the Dam has never been used at its full capacity, powerful storm runoff events moved high sediment loads downstream into the basin where they scoured and buried vegetation and physically altered its ecosystems.

Due to continued accumulation of sedimentation, there has been a reduction in its water storage capacity by 11%. In addition to these problems with natural processes, risk management and climate change, residents living in disadvantaged and isolated neighborhoods nearby suffer from a dramatic lack of open space and social infrastructure.

The creation of a park inside the Santa Fe Dam will provide open space and places for recreational activities in a disadvantaged neighborhood located in an area contaminated by past industrial use.

However inside the dam, a marvelous place left to nature exists. New flood-able trails, a swimming lake and beach area inside the dam, as well as a nature center, parking houses and a new metro station will make the park accessible to the surrounding communities, thus unlocking its full potential, while conserving its original purpose of flood control for the entire San Gabriel Valley.

New urban development in the proximity of the park will create affordable housing and encourage community engagement.
The Santa Fe Dam has never been used at its full capacity / Basin empty most of the year.

Return Period Santa Fe Dam 50 years - 475 ft.

Source by US Army Corps of Engineers

In dry seasons, the landscape experience will remain along the trail and protect the habitat of endangered birds, least bells Vireo and Coastal California Gnat catcher.

Smart irrigation system watering along the trail is adjusted by the weather conditions of the Valley.

Canopy captures and stores storm water from rainy seasons

California Native Drought Resistant Plants

Dam Embankment San Gabriel River Diverted River
Water Storage Optimization for Flood Risk Management
Inside Quarries in the Santa Fe Dam Northern Areas

Existing Condition

Spreading Grounds

Santa Fe District Quarry

Nature Center Quarry

Spreading Grounds Area

Historical Maximum Storage in 1966

475 ft NGVD

Total Maximum Capacity

30880 ac-ft

14400 ac-ft

460 ft NGVD

496 ft NGVD

5690 ac-ft

481 ft NGVD

5320 ac-ft Added Capacity

Diverted River

San Gabriel River

Dam Embankment
Recombining the City:
Leveraging social-ecological and food systems to save Osaka’s downtown

Site Location: Osaka, Japan | Advisors: Harrison Fraker + Julia Grinkrug + John Ellis

Japan has been implementing a “compact city” approach for the last 18 years, densifying what is known as the Tōkaidō Belt; a region of fifty million people in the core of the country. This is a unique phenomenon where cities keep growing but not sprawling.

Osaka – the “Kitchen of Japan” has been affected by the national compaction process, due to local migration of people moving from disinvested rural areas towards urban centers; Osaka has lost 40% of its urban agriculture during the last decade.

Revitalizing the relationship Downtown-Periphery can save Osaka poetically and practically. The soil on the periphery is deteriorated and produces low quality vegetables.

The young are not willing to work on farms while an aging population cannot take care of the peripheral patches. Relocating farming to downtown will release enough land to allow reforestation at the edge of the city. This change will reduce the carbon footprint and at the same time revive local food production.

The project redevelops 9.8 Acres near Osaka’s food district, using vertical farming typologies in an urban repair proposal. The new food production district can produce the same as 1,666 acres of traditional farming, feeding 636,636 people with locally produced food. By reforesting 1,666 acres of gradually released land, Osaka’s Carbon Footprint can be reduced by 74% by 2050 going from 58.9 to 15.3 MT/CO2 per year, Osaka’s Carbon Footprint will be similar to cities like Rome (IT) or Austin (TX).
Existing condition
Downtown Dotonbori, Osaka
1 km²

Masterplan
Downtown Dotonbori, Osaka
1 km²

Canal re-development initial concept
Vertical Farming Blocks

Section introducing freeway re-use with retail and PDR activities in ground floor

Vertical Farming Roofs

Educational center where vertical farming can be exposed in a sensorial environment

Affordable Housing

Downtown street food market under a hanging garden

PV Canal Canopy

Freeway Re-use
<table>
<thead>
<tr>
<th><strong>420,000</strong> Tons per year</th>
<th><strong>636,636</strong> People can be fed with</th>
<th><strong>15%</strong> MT/CO2, Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Produced Locally</td>
<td>Food Produced Locally</td>
<td>Carbon Footprint</td>
</tr>
<tr>
<td>1 person needs 0.66 Tons per year</td>
<td>1 person needs 0.66 Tons per year</td>
<td>Global Ranking N 156</td>
</tr>
</tbody>
</table>
Three economic drivers at each peninsula create new job opportunities and provide public infrastructure. In the Main Peninsula, closest to downtown, a new mini-campus of Cleveland State University provides accessible education and boosts development in the neighborhood. The Columbus Peninsula is planned for the 2030 World Sustainable Urbanism Expo and establishes a new station on the existing subway line, connecting the site to the airport. The Scranton Peninsula incorporates a health campus and Wellness Trails System based on the existing bike paths. The three peninsulas work together to provide affordable housing, resilient landscaping, and connection to the adjacent neighborhoods.

Through the creation of mixed-income neighborhoods, the activation of the waterfront, and the promotion of healthy walkable lifestyles, this thesis establishes a new urban pattern that revitalizes these disinvested neighborhoods in a sustainable and resilient way.

The modern world focuses on regions that are developing toward a prosperous economy and overall population growth, often neglecting declining cities. Cleveland is an exemplary Shrinking City, undergoing a steady loss of the U.S. population since 1950. Despite the loss of US residents, the city’s immigrant population is increasing due to a local Citizenship & Immigration Services office, leading to an overall increase in the number of city residents.

The selected tri-peninsula site is disinvested by the city and has lost much of its population as a result of redlining. Historically, it suffered from heavy industrial development, resulting in large-scale environmental contamination. Additionally, a demographic boundary of segregation divides white and non-white communities, with the population predominately African American. Major challenges include the derelict state of the site, which is dominated by parking, the legacy of pollution, and the need to stabilize the lives of the remaining population.

Site Location: Cleveland, Ohio | Advisors: John Ellis + Harrison Fraker + Stefan Pellegrini
The 11 students of the class of 2020 are the 24th group to complete the Masters of Urban Design program.

MUD students represent a small but significant tranche of graduate urban design study at the CED that includes an urban design concentration in the professional degree MCP program as well as the post-professional MUD program. MUD students are generalists who bring their previous professional experience in architecture, landscape architecture, and planning to the interdisciplinary design tradition at the CED and spend an academic year immersed in the urban laboratory of the San Francisco Bay Area. Their professional perspective and trajectory sets them apart from many of their colleagues as they build a foundation in urban design, theory, and research and collaborate with students in the other advanced degree programs. MUD students often serve as unifiers across design disciplines as they practice design leadership with other students and faculty.

As the capstone of the MUD curriculum, the Advanced Design Project provides an opportunity for students to apply what they’ve learned during their brief yet intense foundational program to a specific geography, program, or design problem. With the ADP, nascent urbanists bring their assumptions under new scrutiny and take up defensible positions that express their respective urban design thesis relying upon iterative testing, design exploration, and the support of their peers and mentors.

The CED provides a setting rich in institutional knowledge that allows and encourages students to build upon past design work and research and has encouraged much growth and evolution since the early years of the program. Over the past two decades, MUD students have leveraged the department’s resources and support of urban design travel and research to expand the definition of urban design, from an initial focus on the design of public spaces, quarters, neighborhoods, streets and corridors in the early years of the program, to the design of regions and territories in recent years. They have sought to confront a range of contemporary issues, from the disinvestment, disorder, and inequity of urban cores, to the retrofit of suburban places, and the adaptation of environments impacted by climate change and sea level rise. Along the way students have gained an immersive understanding of urban design’s overlap and intersection with economic forces, social and political systems, infrastructure, sustainability, cultural heritage, and natural systems (including geology, hydrology, geomorphology, and climate).

The increased availability of extensive satellite mapping data has helped to make project sites at every corner of the globe accessible and feasible and has enabled larger and more complex urban design projects; what may have needed a travel visa, a costly site visit and hours of documentation 20 years ago may today only require access to Google Earth. And the broad efficacy of 3-D modeling software has expanded students’ ability to both analyze data and effectively demonstrate their design outcomes.

Coming into 2019, the MUD students were poised to have what should have been another “ordinary” year of urban design stretching, building upon the work of previous classes, raising some new questions and answering some old ones while collaborating to explore project sites and themes under the guidance of faculty and reviewers. Then, 2020 happened. The advent of the pandemic greatly limited many students’ abilities to visit the ADP sites they had chosen, and lecture courses and design studios went online. Over the summer, students strived to make meaningful projects from the soltary of lockdown, as the California landscape was ravaged by unprecedented wildfires, nationwide protests over systemic racism and police reform erupted, and much of the program’s informal support structure vanished.

Despite these setbacks, the class of 2020 persevered pushing forward big ideas and grand projects. Students used social media to connect with local residents of their sites, who provided reporting and took site photographs, gaining unique perspectives that were otherwise likely to be overlooked. Interim reviews – which had traditionally been very effective in the iterative development of urban design concepts, transitioned to online formats that allowed the “pinup” to evolve seamlessly over the course of the entire semester. Students adopted new strategies for visual communication, leveraging digital workspaces and animations. And the breadth and scale of projects reached new levels, among them: A national trail through Haiti, a district energy strategy for the State of California, a sustainable land use strategy for western Tanzania.

The final ADP reviews have traditionally served as a reunion of locals: MUD graduates that have remained in the Bay Area, current and incoming students, faculty and staff, urban design professionals. This year, online reviews brought together a more international group, including broad and inclusive participation representing 5 continents – a testament to the continuity and community that has been created through 24 years of the program.

The need for urban designers, and multi-disciplinary design leadership, has never been more crucial. The summer of 2020 served as a reminder of the critical and pressing issues facing the built environment, and the abilities of Berkeley’s MUD students to respond in kind. These 11 will join the 184 students that have completed the program since 1997 in making their own important contribution.

Closing Remarks

Stefan Pelligrini, RA, AICP, MUD (2001)
Lecturer in Urban Design (2007 - present)
THE 6FT APART PHOTO

Attempting graduation pictures during the Covid-19 pandemic

GOODBYE - ADIOS - HASTA LUEGO - ZÀIJIÀN - AUF WIEDERSEHEN - TSCHÜSS - WADAEAAAN - KHODA HAFEZ - CIAO