2015 Graduates

UNDEGRADUATE
Leega Tran
Morgan Ramirez
Penelope Leggett
Karly Behncke
Sara Harmon
Ruyan Xie
Johnathan Hallet
Emanuel Gonzales
Elizabeth Bailey

MLA/MEP
Caroline Acquistapace
Stephanie Brucart
Joseph Burg
Cacena Marteen Campbell
Delagah Dadbeh
Eden Ferry
Yue Fy
Patrick Haesloop
Allison Marie Jacobson
Mengyuan Jin
Yang Ju
Kaleen Juarez
Elaine Luanzon Laguerta
Maria Lorena Landoni De Rosa
Kevin Thomas Lenhart
Adam Alexander Molinski
Erica Lynn Nagy
Saori Ogura
Kyle Ian O’Konis
Katrina Ortiz
Serin Park
Justin M. Richardson
Grant Saita
Mariel Steiner
Benjamin Waldo
Patrick Webb
Bingyao Zhu

PHD
Sara Carr
Allison Lassiter
Raymond Wong
Strategy - Use freshwater flows from wastewater treatment plants and local creeks to foster protective marshes that rise as fast as the sea.
Phase 1 - Establishment of accreting marsh and parkland

Phase 2 - Gradual retreat of surrounding development
DESCRIPTION: SF Bay retreat strategy at sea level rises

- **SLR +5' (~2010)**
  - Accreting tule marsh 12.5'
  - Levee 14'
  - Abandoned plant 14'
  - Levee 14'
  - Marsh accretion 8'

- **SLR +3' (~2060)**
  - Accreting tule marsh 10'
  - Rebuilt levee 14'
  - Rebuilt levee 14'

- **SLR +1.5' (~2050)**
  - Accreting tule marsh 7.5'
  - Levee 12'
  - Levee 12'
  - Tule back marsh 6'

- **Proposed (2020)**
  - Berm 3'
  - Accreting tule marsh 12'
  - Rebuilt levee 12'
  - Wastewater treatment plant
  - Rebuilt levee 12'
DESCRIPTION: SF Bay retreat strategy at sea level rises
STUDENT: Adam Molinski  |  PROJECT: Rise and Retreat  |  COURSE: LA 203C  |  PROFESSOR: Peter Bosselmann
DESCRIPTION: SF Bay retreat strategy to accommodate sea level rises
COMMERCIAL TRANSIT
60’ EAST-WEST TRANSIT STREETS
LINEAR PARKWAY
70' EAST-WEST STREET

SF Bay retreat strategy to accommodate sea level rises
NEW TOPOGRAPHIES

The brief for this project was to propose a park on the site of the long-defunct Francisco Reservoir in Russian Hill.

POINTS OF DEPARTURE:

140' elevation change between Bay St and Chestnut St
SFPUC wants market value (+$10 million) to sell the property
What program imperatives exist for a unique and "useful" open space within an immediate context rich in green space?
How can the site address the needs of the larger context of the city and the region while retaining its essential character?
How can this site prototype a new type of public space in San Francisco?

OPEN SPACE IN CONTEXT
1 mile radius
CREATING A PUBLIC PARK ON THE SITE OF THE DEFUNCT FRANCISCO RESERVOIR ON RUSSIAN HILL

WILDERNESS
existing vegetation + grade

LANDSCAPE
seasonally mown path

PARK
community center +
extensive green roof/walkway
5% grade

COST OF LAND ACQUISITION FROM SFPUC - PROFITS FROM PARTIAL DEVELOPMENT = SUSTAINABLE FUNDING
ACTIVATED EDGES + EYES ON THE STREET = DYNAMIC URBAN EXPERIENCE
LOOKING NORTH FROM THE PARK
STUDENT: Mariel Steiner | PROJECT: New Topographies | COURSE: LA 203 | PROFESSOR: Karl Kullmann
DESCRIPTION: Creating a public park on the site of the defunct Francisco Reservoir on Russian Hill

ALLEY TYPOLOGIES

CITY ALLEY
Allows access for deliveries and emergency vehicles (7.5% grade)

PARK ALLEY
More green space and terraces rise up the hill as the park topography fumbles down to the street level next.
FRANCISCO PARK
By Kyle O’Konis

DESCRIPTION:
Using microclimate to design Francisco Park to create productive landscape.
Sunken 15’ below the rest of the site, the existing reservoir creates a unique microclimate for an orchard and agriculture beds which are positioned on the visible remnants of an old roof support grid.
The architecture of the bridge is inspired by the water flumes that brought water to the old reservoir.

An overlook provides 180 degree views from the Golden Gate Bridge all the way to Berkeley across the bay.
Using microclimate to design Francisco Park to create productive landscape.
DESCRIPTION: Using beach boardwalk and dune adaptation strategy as protection against future flooding
STUDENT: Toni Toscano  |  PROJECT: Future Shores  |  COURSE: LA 204  |  PROFESSOR: Kristina Hill
DESCRIPTION: Using beach boardwalk and dune adaption strategy as protection against future flooding
STUDENT: Toni Toscano | PROJECT: Future Shores | COURSE: LA 204 | PROFESSOR: Kristina Hill

DESCRIPTION: Using beach boardwalk and dune adaption strategy as protection against future flooding
1. Tidal mudflat with rip rap edge.

2. Sand dredged from the San Francisco Bay is pumped onto the site and graded to maintain a backing tidal marsh.

3. Three years after construction the beach profile adjusts to a more natural form and dunes start building up. The boardwalk railings act as dune fencing. The slats slow the wind down and allow it to drop suspended sand particles.

4. Ten to twenty years after construction the beach profile will have eroded significantly and new fill will be placed on top.
STUDENT: Toni Toscano | PROJECT: Future Shores | COURSE: LA 204 | PROFESSOR: Kristina Hill

DESCRIPTION: Using beach boardwalk and dune adaption strategy as protection against future flooding.
Problem Statement

• Sea Level Rise (SLR) and Storm Inundation - A great concern of Coastal California.
• For planning, design, and decision making, it’s important to first map the potentially inundated area due to SLR and storm surge.

Photos during a near 100-year storm in the Bay Area, February, 1998. (Photos by Lea Suzuki and Vince Maggiora / copyright San Francisco Chronicle.)
Inundated Wetland

- Mostly impacts tidal marsh in San Pablo Bay and Suisun Bay

Wetland migration

- Moves to higher elevation and inland as tidal datum changes
- Constrained migration space due to:
  - Existing development
  - Levees

Projected SLR and storm inundation in San Pablo Bay and Suisun Bay

An excavator breaches the Hamilton Wetland Restoration Project outboard levee in Novato, Calif. on Friday, April 25, 2014. (Photo by J.D. Hardesty)
Inundated coastal development
- Treasure Island
- Alameda
- Foster City
- Redwood City
- Airports: OAK and SFO

Importance of immediate actions to avoid the rapidly increasing consequences with rising sea level.

Inundated area by development intensity

<table>
<thead>
<tr>
<th>Inundated area (km²)</th>
<th>0 m SLR</th>
<th>0.5 m SLR</th>
<th>1.0 m SLR</th>
<th>1.41 m SLR</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.98</td>
<td>14.69</td>
<td>26.23</td>
<td>31.67</td>
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<td>10.24</td>
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<td>43.25</td>
<td>63.75</td>
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<tr>
<td>25.76</td>
<td>45.14</td>
<td>87.92</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inundation by time sequence

• Simulated hourly inundation for a period of 72 hours
• 72 results were generated
• Animations can be made from the time-series results for area of interest
STUDENT: Sara Carr | PROJECT: Topography of Wellness | PhD Dissertation | PROFESSOR: Louise Mozingo
DESCRIPTION: Examining the historical & theoretical foundations of health & the built environment
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Street Continuity (Path)  Resources (Destinations)  Urban Landscape (Area)
STUDENT: Sara Carr | PROJECT: Topography of Wellness | PhD Dissertation | PROFESSOR: Louise Mozingo
DESCRIPTION: Examining the historical & theoretical foundations of health & the built environment
STUDENTS: Elizabeth Bailey, Karly Behncke, Sara Harmon, Penelope Legget
PROJECT: California Native Meadow | COURSE: LA112 | PROFESSOR: Dawn Kooyumjian
DESCRIPTION: Redesigning McCone Hall’s southern courtyard with a California native planting scheme
STUDENTS: Elizabeth Bailey, Karly Behncke, Sara Harmon, Penelope Legget

PROJECT: California Native Meadow  |  COURSE: LA112  |  PROFESSOR: Dawn Kooyumjian

DESCRIPTION: Redesigning McCone Hall's southern courtyard with a California native planting scheme
STUDENT: Justin Richardson | PROJECT: Modern Living | COURSE: LA202 | PROF: Linda Jewell/Jen Brooks

DESCRIPTION: Reconnecting Grand Park, City Hall & the Broadway Blvd. with downtown life
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Arrival from Broadway

DESCRIPTION: Reconnecting Grand Park, City Hall & the Broadway Blvd. with downtown life
STUDENT: Justin Richardson | PROJECT: Modern Living | COURSE: LA202 | PROF: Linda Jewell/Jen Brooks
DESCRIPTION: Reconnecting Grand Park, City Hall & the Broadway Blvd. with downtown life
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DESCRIPTION: Reconnecting Grand Park, City Hall & the Broadway Blvd. with downtown life
DESCRIPTION: ReAppropriate part of the 1st St Bridge in LA to accommodate additional public uses.
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ROAD DIET

0 - 1800 trips per hour

1800 - 3600 trips per hour

3600 - 5600 trips per hour

First Street Bridge has 21,000 ADT (average daily trips) or somewhere between 875 (24 hours) to 1,750 (12 hours) trips per hour.

Road diets are recommended for roads with less than 23,000 vehicles per day.

Existing 1st Street Bridge Section - 100' ROW

Proposed 1st Street Bridge Section - 100' ROW
DESCRIPTION: Reappropriate part of the 1st St Bridge in LA to accommodate additional public uses
DESCRIPTION: Installations in Blake Garden using bamboo, wire, string and webs
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STUDENT: Karly Behncke  |  PROJECT: Entwine  |  COURSE: LA101  |  PROFESSOR: Randi Johnsen
DESCRIPTION: Installations in Blake Garden using bamboo, wire, string and webs
DESCRIPTION: Conceptualizing memorials and their impact on a particular site and its visitors
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STUDENT: Karly Behncke | PROJECT: Waves & Tides | COURSE: LA102 | PROFESSOR: Karl Kullman

DESCRIPTION: Conceptualizing memorials and their impact on a particular site and its visitors
STUDENT: Karly Behncke | PROJECT: [CELL] la vie | COURSE: LA103 | PROFESSOR: Chip Sullivan

DESCRIPTION: Designing an ecological center at Half Moon Bay that works with the site and energy production

Legend:
1. nucleus (exhibit center)
2. concrete slabs (parking)
3. endospermic restitutum (dorms)
4. genpad body (recycling/truck access)
5. ribosomes (classrooms)
6. chloroplasts (green wall)
7. mitochondria (eating/planic area)
8. vacuole (water/thermals)

plan scale 1:40

[CELL] la vie

kargl behncke

course 103

section scale 1:40
DESCRIPTION: Connect the neighbourhood to the river through reshaping the open space

Site Plan

Public plaza provides flexible space for markets and modular food vending and distribution, with sight lines leading to the river.

Linear open space mends the existing urban fabric back into association with the river, providing green open space and recreational opportunity.

Armored vegetated terraces provide access, while creating flexible riparian habitat to be allowed to change over time through inundation and growth.

Re-purposed wholesale distribution center becomes a Certified Farmers Market, an open marketplace for more meaningful public engagements with food systems and providers.

Railway traffic continues over the new site elevation along an elevated trestle.
Aerial Perspective North

DESCRIPTION: Connect the neighbourhood to the river through reshaping the open space

DESCRIPTION: Connect the neighbourhood to the river through reshaping the open space

Physical Model Photos

Site Elevation
DESCRIPTION: Connect the neighbourhood to the river through reshaping the open space
STUDENT: Eden Ferry | PROJECT: Indian Basin EcoDistrict & Wetland Park | LA203C | PROF: Peter Bosselmann

DESCRIPTION: Developing collaboration between mixed-use dev., public space & wetland habitat

SEDIMENT ACCRETION + WETLAND SUCCESION

2015
Existing rip-rap edge + sedimentation

2025
Rotation of rip-rap into jetty
Sediment accretion

2050
Wetland extension
_larger vertical buffer for SLR
_carbon sequestration
_extension of Heron's Head
STUDENT: Eden Ferry | PROJECT: Indian Basin EcoDistrict & Wetland Park | LA203C | PROF: Peter Bosselmann
DESCRIPTION: Developing collaboration between mixed-use dev., public space & wetland habitat
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DESCRIPTION: Developing collaboration between mixed-use dev., public space & wetland habitat

WETLAND SUCCESSION | ACCUMULATE + GROW

Hunters view hill path
Promenade
Wetland boardwalk
Rip-Rap Jetty
Light weight bridge

2015

SEDIMENT ACCUMULATION

Horizontal buffer extension
Vertical buffer extension

2025

WETLAND SUCCESSION

2050
DESCRIPTION: Developing collaboration between mixed-use dev., public space & wetland habitat

SUB- SURFACE FLOW WETLAND IN BLOCK INTERIORS

UV filter
non-potable water recycled for toilet flushing

2-3 day circulation

weep holes allow water to move through treatment cells

settling tank
subsurface flow wetland

grey+blackwater collection
LAND USE CHANGE OF LEPCHA INDIGENOUS VILLAGES IN THE SIKKIM HIMALAYAS
-HISTORICAL ETHNO ECOLOGY APPROACH
Saori Ogura, Master in Landscape Architecture and Environmental Planning

SITE CONTEXT

INDIA
SIKKIM

UPPER DZONGU

STUDENT: Soari Ogura | PROJECT: Land Use Change | COURSE: LA206 | PROF: Louise Mozingo
DESCRIPTION: Land Use Change in Lepcha Indigenous Villages in Sikkim Himalayas Ethno Ecology Approach

METHOD
HISTORICAL ETHNO ECOLOGY

STUDY 1
GIS
Maximum Likelihood Classification
Post-Classification Change Detection

STUDY 2
ETHNOGRAPHY
Participatory Observation
Key Informant Interviews
Key Informant Group Discussions

STUDY 3
LANDSCAPE ETHNOBOTANY
Participatory Observation
Key Informant Interviews
Key Informant Group Discussions
Photos
Drawings

INTENTION
My research documents one snapshot of the Lepcha indigenous people's lives, in order to understand their persisting relationships with the natural environment, how they have changed due to outside contact within the global system, and the components of age-old and quickly disappearing indigenous livelihood strategies.

Dzongu provides a comparative example of the persistence and abandonment of traditional agricultural practices and its implications for sustainable livelihoods. I hope to learn lessons from the Lepcha experience that may be instructive for other areas with remnants of traditional agricultural practice.
STUDENT: Soari Ogora | PROJECT: Land Use Change | COURSE: LA206 | PROF: Louise Mozingo
DESCRIPTION: Land Use Change in Lepcha Indigenous Villages in Sikkim Himalayas Ethno Ecology Approach

STUDY 2: ETHNOGRAPHY

DIAGRAM OF LAND USE CHANGE

SECTIONS OF LAND USE CHANGE

1960s
- Shifting agriculture still exists.
- Expansion of wet rice.

1970s
- Expansion of wet rice continues.
- Expansion of cash crop cardamom.
- In-migration of Nepali labors.
- First jeep road constructed in Lower Passingdang.
- Settlement change to road side starts.

1980s
- Expansion of cash crop cardamom continues.
- In-migration of Nepali labors continues.
- Second jeep road constructed in Upper Passingdang.
- Settlement change to road side continues.
- Easy accessibility to market, and less use of forest product.

1990s
- Settlement change to road side continues.
- Taxi appears between the market and the village.

2000s
- Cash crop cardamom crashes due to the disease.
- Out-migration of Nepali labors.

2010s
- Replantation of cash crop cardamom.
- New jeep road constructed to Upper Lingthem.
**STUDENT:** Soari Ogora | **PROJECT:** Land Use Change | **COURSE:** LA206 | **PROF.:** Louise Mozingo

**DESCRIPTION:** Land Use Change in Lepcha Indigenous Villages in Sikkim Himalayas Ethno Ecology Approach

**STUDY 3: LANDSCAPE ETHNOBOTANY**

### Traditional Cultivated Crops

**6. Nohom**

- **Common Names:** Sakyong village, Nohom village
- **Habitat/Location:** Sakyong village, Nohom village
- **Description:** Ripe seeds are collected in a basket, and housed with sticks to get rid of the leaves. Seeds are used to make oil, flour, and oil with leaves. The plant is also used to prepare a traditional medicine.

**25. Kuching**

- **Common Name:** Nohem (black) village
- **Description:** Used to prepare a traditional medicine.

**30. Kunehat bee**

- **Common Name:** Nohem (black) village
- **Description:** Used to prepare a traditional medicine.

### Gathered Plants

**1. Kandack**

- **Common Name:** Sakyong village, Nohom village
- **Description:** Harvested once per year. Harvested with sickle. Can be harvested with sickle.

**2. Kutneyem**

- **Common Name:** Sakyong village, Nohom village
- **Description:** Harvested once per year. Harvested with sickle. Can be harvested with sickle.

**21. Kushiopatt**

- **Common Name:** Sakyong village, Nohom village
- **Description:** Harvested once per year. Harvested with sickle. Can be harvested with sickle.

**27. Yemoyot-pao/Ribid dong (bamboo shoot)**

- **Common Name:** Sakyong village, Nohom village
- **Description:** Harvested once per year. Harvested with sickle. Can be harvested with sickle.

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**Plant Family: Poaceae**

**Latin Name:** Dendrocalamus strictus

**Local Lepcha Name:** Ribid dam

**Nepali Name:** Taru (bamboo)

**Locality:** Khewlo, Lower Limping

**Description:** Used as a building material and for making baskets.

**Plant Family: Zingiberaceae**

**Latin Name:** Alpinia officinarum

**Local Lepcha Name:** Behkli

**Nepali Name:** Behkli (beehive)

**Locality:** Behkli

**Description:** Used to prepare a traditional medicine.

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**Plant Family: Acanthaceae**

**Latin Name:** Cordyline fruticosa

**Local Lepcha Name:** Bumtong

**Nepali Name:** Bumtong (butter)

**Locality:** Bumtong

**Description:** Used to prepare a traditional medicine.

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**Plant Family: Fabaceae**

**Latin Name:** Sophora japonica

**Local Lepcha Name:** Koto

**Nepali Name:** Koto (butter)

**Locality:** Koto

**Description:** Used to prepare a traditional medicine.
This thesis is a snapshot of how the global force has affected the Lepcha indigenous people in the Eastern Himalayas, and local reaction to external forces. I found decline in crop diversity in the area devoted to the monocultural cardamom cash crop system, which resulted in a forest cover increase after the crash of the cardamom, and the persistence of traditional food crops only in the most remote villages.

This thesis contributes to providing a base for re-integrating traditional ecological knowledge into our socio-ecological systems as a pathway to create societies that can adapt to environmental changes and have healthy interactions between people and nature.
STUDENT ASLA: Emanuel Gonzales, Erica Althans-Schmidt, Gino Orlando, Jonathan Hallet, Leega Tran
DESCRIPTION: San Francisco Garden Show
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DESCRIPTION: San Francisco Garden Show
STUDENT: Grant Saita, Micaela Balo, Stephanie Lin  |  Thomas Church Competition (1st Place)
DESCRIPTION: Master Plan for Bay View neighbourhood near SFPUC water treatment plant

CLEAVES V.2

verb klēvē TO ADHERE OR CLING TO;
TO REMAIN ATTACHED, DEVOTED, OR FAITHFUL TO

SFPUC/SOUTHEAST PLANT, NEIGHBORHOOD CLEAVE

GESTALT

SCALE

DEMOGRAPHIC CHANGE

SITE PLAN

NOT MAGNITUDE, NOT LAWSUITS,
 BUT FORM, THE SITE,
 NOT INNOVATION BUT PURPOSE,
 NOT RESISTANCE FOR THE ARCHETYPE,
— HERMAN MELVILLE

PHELPS ST WATER CHAIN

PHOTOGRAPHY: HANNAH BOPPRIN, NANCY HO, ANDREW WILCOX
STUDENT: Grant Saita, Micaela Balo, Stephanie Lin | Thomas Church Competition (1st Place)

DESCRIPTION: Master Plan for Bay View neighbourhood near SFPUC water treatment plant
DESCRIPTION: Liminal Sponge absorbs unwanted odors of wastewater plant & support ecologies under pressure
DESCRIPTION: Liminal Sponge absorbs unwanted odors of wastewater plant & support ecologies under pressure
STUDENT: Caroline Acquistapace/Elaine Laguerta/Kyle O'Konis/Joanna Salem | Thomas Church Competition

DESCRIPTION: Occupy the Fence: A Botanical Revolution

Occupy the Fence is a botanical garden revolution initiated by the students where they have created an edible fence that surrounds an area to protect the plants from the invasive nontreatable plants. The fence includes edible and nontoxic plants, providing not only a botanical revolution but also a place for the community to gather. The design incorporates multiple pathways for varying heights, facilitating the accessibility of the space for different age groups. The edible fence is not only a visual barrier but also a functional one, allowing for the growth of different edible plants along its length. The design includes a series of terraces, providing a place for community gatherings and educational activities. The use of local materials and the integration of natural elements create a harmonious environment that connects the community with their surroundings.