SPECIAL THANKS TO:

SANDAG
Antoinette Meier, Danielle Kochman

UC SAN DIEGO DESIGN LAB
Michèle Morris, Stephanie Sherman, Ian Strelsky, Nina Baker, Colleen Emmenegger, Jennifer Taylor

UC SAN DIEGO YOUNG PLANNERS’ SOCIETY
Erik Mumm, Elizabeth Owen, Lindsey Volz

UC SAN DIEGO CAMPUS PLANNING
Rae Hartigan, Stephanie Ellsworth

UC SAN DIEGO URBAN STUDIES
Dr. Mirle Rabinowitz-Bussell
UC San Diego is difficult to access by transportation other than private car. The La Jolla campus, located on a hilly plot north of downtown San Diego, has limited public transit service. While some small incentives exist to bike, ride the bus, and take campus shuttles, these services do not meet current mobility demands. Public transit infrastructure is in need of enhancements to improve convenience, rider experience, and service coverage. Drivers, meanwhile, encounter a frustrating parking shortage. All in all, transit and mobility present significant challenges for the campus community.

Thanks to Transnet, a local half-cent sales tax for transportation projects, SANDAG is constructing a new trolley line that will connect the border and downtown San Diego with the UC San Diego campus. The Pepper Canyon Station will provide a new entrance to campus adjacent to the new Design and Innovation Building and the Visual Arts Facility. The station will also be surrounded by new housing, amenities, service projects, and natural elements.

The growth of new modes of mobility such as e-bikes, scooters, and autonomous vehicles means that the plans for the Pepper Canyon Station, developed in 2003, need to be updated to meet present and future mobility technologies. Pepper Canyon Station will not only serve as a trolley station, but a mobility hub, a center where various modes of transit converge, serving the diverse transportation needs of students, staff, and campus visitors.
On April 6 and 7th, 2019, 250+ students, faculty, staff, government and industry leaders, and transit riders assembled under a giant tent in the heart of UC San Diego’s campus for the Pepper Canyon Mobility Hub Designathon. Their mission was to design futures to transform the incoming Pepper Canyon station into a dynamic multimodal mobility hub, advancing connectivity between the station and the rest of campus.

From 9am-9pm on Saturday and Sunday, 32 interdisciplinary teams of students and community members occupied Warren Mall with plans, prototypes, maps, scooters, and more. Although teams competed for $5000 in cash prizes, there was a sense of collaborative investment in improving everyday life at UC San Diego for generations to come. 50 mentors from academia, industry, and government with expertise in design, technology, and planning fields, were there to support their work.

The Pepper Canyon Designathon was produced as a practicing partnership between SANDAG, UC San Diego Campus Planning, UC San Diego Urban Studies and Planning, and the UC San Diego Design Lab. The Design Lab is the campus’s center for design research and education, focused on human and user-centered design, led by world famous design scholar and practitioner Don Norman. The UC San Diego Design Lab partnered with the Young Planners Society, a group of highly talented students, to organize the Designathon and engage students across campus and beyond.
DESIGNATHONS are intensive, immersive events where interdisciplinary teams design solutions to real world challenges over the course of a few days. Designathon participants deploy user-centered design techniques including observation, prototyping, testing, iteration, and storytelling. Undergraduates, graduate students, high school students, neighbors, designers, engineers, technologists, media-makers, planners, artists, future users, and youth are all welcome to participate. Mentors, judges, and partners from academia, industry and public institutions support the team's design and technical process throughout the event. The design process encourages empathy and access for all kinds of mobility users and participants. This designathon was modeled after the Design-a-Hack-a-thon hosted by the Design Lab and MIT City Science in the fall of 2018.

The Pepper Canyon Designathon invited participants to propose physical and digital designs, policies and protocols, art and culture interventions, and short term and future multimodal augmentations for the station that make it a better place for users and the environment at large. Projects applied the tenets of placemaking, multimodal transportation, technology, public health and well-being, and innovation. The challenge was framed into three focus areas—Programs + Services, Urban Design Plans, and Technology + Data Solutions. Teams were invited to work on present projects (navigating current mobility challenges with construction), near future projects (as part of existing campus plans through 2030), and far future projects.

Teams adopted a user-centered approach to learning about the various users of the station, prototyping and testing their solutions for their project pitches. Emergent themes included wayfinding/navigation, art and culture to augment the currently austere campus landscape, and responsive and adaptive lanes, although solutions touched on various integrations of data, applications, and in some cases, radical mobility proposals like gondolas and moving walkways. Five winners were ultimately selected for their innovation and creativity, but the 32 submitted projects are already shaping thinking and planning for the new mobility hub, serving as inspiration and resource for architects, planners, leaders, and stakeholders.

The Multimodal Mobility Hub will be aligned with UC San Diego values and goals, including support for public health and well-being, minimizing ecological footprint, and demonstrating the experimental, non-traditional approach of the university. UC San Diego Chancellor Khosa is committed to reducing GHG emissions from commuting by 2% per year (based on the previous year’s emissions) from 2009 to 2050 by continuing to decrease the number of single-occupant vehicle commuters. These projects are just the beginning of a community co-designed transit vision that supports a more robust social life, ecology, and ease of getting between UC San Diego and the rest of the city.
**SCHEDULE**

**SATURDAY APRIL 6**

9-10 Breakfast + Final Team Formation Session
10-11 Welcome + Orientation
11-1 Ideation + Observation
1-2 Lunch
2-3 Feedback: Roundtable Session
3-6 Design Development, Prototyping + Testing
5:30-6 Optional Lime Joyride
6-7 Dinner
7-9 Work Session

**SUNDAY APRIL 7**

9-9:30 Breakfast
9:30 Announcements + Storytelling Workshop
10-12 Work Session
12-1 Feedback: Presentation Session
1-2 Lunch
2-5 Work Session
5 Submissions Deadline!
5:15-6:15 Final Presentations
6-7 Dinner
6:40 Announcements + Finalists decisions
7-8 Finalists Present to Public
8-8:15 Dessert
8:30 Winners Announced!
8-9 Celebration
PEOPLE
218 participants
32 teams
56 mentors
14 organizers
17 special speakers + guests
5 judges
## PARTICIPANTS BY DISCIPLINE

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>2</td>
</tr>
<tr>
<td>Architecture</td>
<td>2</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>2</td>
</tr>
<tr>
<td>Bioengineering</td>
<td>3</td>
</tr>
<tr>
<td>Cognitive Science</td>
<td>69</td>
</tr>
<tr>
<td>Communications</td>
<td>6</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science</td>
<td>9</td>
</tr>
<tr>
<td>Data Science</td>
<td>6</td>
</tr>
<tr>
<td>Design</td>
<td>1</td>
</tr>
<tr>
<td>Electrical &amp; Computer Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Global Health</td>
<td>1</td>
</tr>
<tr>
<td>History</td>
<td>1</td>
</tr>
<tr>
<td>ICAM</td>
<td>1</td>
</tr>
<tr>
<td>Interior Design</td>
<td>3</td>
</tr>
<tr>
<td>International Business</td>
<td>2</td>
</tr>
<tr>
<td>International Studies</td>
<td>1</td>
</tr>
<tr>
<td>Marine Biology</td>
<td>1</td>
</tr>
<tr>
<td>Math</td>
<td>1</td>
</tr>
<tr>
<td>Math &amp; Computer Science</td>
<td>5</td>
</tr>
<tr>
<td>Mechanical &amp; Aerospace Engineering</td>
<td>18</td>
</tr>
<tr>
<td>Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>NanoEngineering</td>
<td>1</td>
</tr>
<tr>
<td>Neurobiology</td>
<td>1</td>
</tr>
<tr>
<td>Oceanic &amp; Atmospheric Sciences</td>
<td>1</td>
</tr>
<tr>
<td>Physics</td>
<td>1</td>
</tr>
<tr>
<td>Physiology &amp; Neuroscience</td>
<td>1</td>
</tr>
<tr>
<td>Pre-Art</td>
<td>1</td>
</tr>
<tr>
<td>Product Design</td>
<td>1</td>
</tr>
<tr>
<td>Psychology</td>
<td>2</td>
</tr>
<tr>
<td>Real Estate &amp; Development</td>
<td>4</td>
</tr>
<tr>
<td>Speculative Design</td>
<td>4</td>
</tr>
<tr>
<td>Structural Engineering</td>
<td>4</td>
</tr>
<tr>
<td>Systems Engineering</td>
<td>2</td>
</tr>
<tr>
<td>Urban Studies &amp; Planning</td>
<td>12</td>
</tr>
<tr>
<td>Visual Arts</td>
<td>6</td>
</tr>
</tbody>
</table>
## MENTORS BY AFFILIATION

<table>
<thead>
<tr>
<th>Mentor</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>APA</td>
<td>1</td>
</tr>
<tr>
<td>Caltrans Multi-modal Planning</td>
<td>1</td>
</tr>
<tr>
<td>Carmen Artigas Consulting</td>
<td>1</td>
</tr>
<tr>
<td>CAT</td>
<td>1</td>
</tr>
<tr>
<td>Chen Ryan Associates</td>
<td>2</td>
</tr>
<tr>
<td>City of San Diego Planning Department</td>
<td>1</td>
</tr>
<tr>
<td>County of San Diego</td>
<td>1</td>
</tr>
<tr>
<td>Cubic Transportation Systems</td>
<td>1</td>
</tr>
<tr>
<td>Design at UCSD</td>
<td>1</td>
</tr>
<tr>
<td>Design for America</td>
<td>7</td>
</tr>
<tr>
<td>Design Lab at UCSD</td>
<td>2</td>
</tr>
<tr>
<td>Estrada Land Planning</td>
<td>1</td>
</tr>
<tr>
<td>IBI Group</td>
<td>2</td>
</tr>
<tr>
<td>Kimley-Horn</td>
<td>1</td>
</tr>
<tr>
<td>KTUA</td>
<td>1</td>
</tr>
<tr>
<td>Linscott, Law &amp; Greenspan</td>
<td>1</td>
</tr>
<tr>
<td>MTS</td>
<td>3</td>
</tr>
<tr>
<td>NewSchool of Architecture &amp; Design</td>
<td>1</td>
</tr>
<tr>
<td>Qualcomm Institute</td>
<td>1</td>
</tr>
<tr>
<td>Safdie Rabines Architects</td>
<td>2</td>
</tr>
<tr>
<td>San Diego State University</td>
<td>1</td>
</tr>
<tr>
<td>SANDAG</td>
<td>10</td>
</tr>
<tr>
<td>Sony</td>
<td>3</td>
</tr>
<tr>
<td>The Idea Guy</td>
<td>1</td>
</tr>
<tr>
<td>UC San Diego (General)</td>
<td>5</td>
</tr>
<tr>
<td>UC San Diego Campus Planning</td>
<td>3</td>
</tr>
<tr>
<td>UC San Diego Department of Family Medicine and Public Health</td>
<td>1</td>
</tr>
<tr>
<td>WSP Consulting</td>
<td>1</td>
</tr>
</tbody>
</table>
MENTORS

Alex Morrow
Aman Gupta
Andrew Baez
Ash Smith
Brer Marsh
Brian Gaze
Coleen Clementson
Colleen Emmenegger
Danielle Kochman
Danielle Zusman
Dave Schumacher
Debbie Leung
Ehsan Ziaekajbaf
Elisa Arias
Eliud Escobedo
Elyse Sanchez
Erin Glass
Ginger Stout
Greg Gastelum
Israel Maldonado
Jan Eric De Castro
Jane Clough
Jennifer Taylor
John Dorow
Jonathan Hernandez
Joseph Kennedy
Karyn Shore
Katie Busch-Sorensen
Katie Crist
KC Yellapu
Kevin Popovic
Kim Kawada
Kyle Schertzing
Lauren Ibarra
Leslie Stahl
Lindsay Miller
Lucy Cummings
Mara Shank
Marvin DeMarchant
Matt Horton
Matthew Cox
Matues Guzzo
Mike Singleton
Muggs Stoll
Nensi Lakrori
Philip Trom
Phuong Nguyen
R. Lee Brown
Robert Clossin
Robyn Wong
Rodrigo Carrasco
Ryan Manalastas
Sharon Humphreys
Todd Pitman
Vicki Estrada

JUDGES

Antoinette Meier, SANDAG
Michèle Morris, Design Lab
Raeanon Hartigan, Campus Planning
Mirle Rabinowitz Bussell, Urban Studies
Matthew Anton, Lime
# JUDGING CRITERIA

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A Clearly-Defined Problem</strong></td>
<td>Teams provide a clear description of the particular problem they address, or define the opportunity for mobility hubs their project takes on. Teams show how this problem was determined through evidence of existing conditions (e.g. interviews with users, image, videos, plans etc.) or forecasted based on social and technological development trends. Responses to Mobility Hub challenges from SANDAG and Campus planning (transit accessibility, integrated mobility, equity) are encouraged, but other general or specific problems for mobility hubs can also be identified. Teams should identify, whenever possible, the specific subset(s) of users their projects support.</td>
</tr>
<tr>
<td><strong>An Excellent Design Process</strong></td>
<td>Teams should demonstrate a smart human-centered design process that includes thinking, observing, testing, and iterating. This should include observations of people in the world that help identify problems and interactions. It will probably include prototypes (low or hi fi) or simulations that test proposed solutions in the real world with people who are as close to the intended target users as possible, to help understand possible behaviors, interactions, and outcomes of the proposal. Value is placed on observing, testing and iterating on designs by learning from engagement with the real world, not only the results or findings.</td>
</tr>
<tr>
<td><strong>A Well-Articulated Proposal</strong></td>
<td>The Proposition addresses the defined problem through a proposition/story that articulates and visualizes the design problem, proposition, and process. Propositions might include photos, videos, drawings, audio, writing, and prototypes for proof of concept. Documentation of attempted solutions—and iterations—aimed at addressing the identified problem and capturing the design process are encouraged.</td>
</tr>
</tbody>
</table>
Got lost, Okay.

"It's so quiet today?"

"We're confused about the system."

"We took the tour to car."
PROPOSALS
TOPICS

- Promoting Arts & Culture
- Improving Mobility/Congestion
- Wayfinding
- Accessibility
- Trolley Station
- Destination
- Safety
- Micro-Mobility
- Technology
- Shuttles
- Amenities/Retail
- Community
As a replacement for micromobile vehicles, Autonomous Navigational Transit System transports people across campus more efficiently by adapting accordingly to ongoing traffic.

PROBLEM
Accessibility on campus

GOAL
Increase accessibility around campus with more mobility devices

FEATURES
- Lime ANTS would have set lanes which they cannot deviate from
- Lime ANTS would replace bikes, electric scooters, and skateboards in areas of operation
- Bikes, electric scooters, and skateboards would not be permitted on these new pathways
- Accessible by all parties of any disabilities
As an active space, the Conch acts as a beacon for activity and community-building, promoting socialization at the trolley stop and beyond class.

**PROBLEM**
UC San Diego has the perception of being socially “dead”

**GOAL**
Improve campus social life with an active space

**FEATURES**
- Would establish a nexus of student culture and new heart of UC San Diego
- Active, central space near the train station that promotes gathering and socializing near transit amenities
- Promotes the idea of staying beyond class

**WINNER: EXCELLENT STORYTELLING**
Pick-up shuttles with food services make food more accessible to commuters who don’t have time to buy food on their way to class.

PROBLEM
Students who live off campus don’t have time to eat on their way to class

GOAL
Make food more accessible and convenient for commuters

FEATURES
- Food app combined with pick-up shuttles
Using data from popular social media sites, an interactive app features local activities and recommended destinations to improve the wayfinding experience; recommendations are displayed on rotating kiosks.

PROBLEM
First-time students are unfamiliar with campus and wayfinding

GOAL
Improve wayfinding for incoming students

FEATURES
- Interactive station uses students’ collective knowledge of campus to aid first timers
- Appeals to faculty, new students, and visitors who want to know where local spots are
UC SOCIALLY DYNAMIC

SALT & PEPPER  Gregory Boscaiu, Zijian Ding, Xirui He, Kristi Lin, Jennifer Phelps, Sophie Siemsgluess, Priyan Vaithilingam

An initiative to activate spaces around Rupertus Way to promote community and activity; highlights include promoting events on and off campus accessible by the trolley, interactive art installations, and nature benches.

PROBLEM
Improve campus social scene and perception

GOAL
Re-engage the student population

FEATURES
- Community center with information kiosks to highlight events on and off campus
- Interactive art spaces such as light shows, a public theatre stage, and nature benches

WINNER: READY TO LAUNCH
ON THE PROBLEM OF HILLS

ARGO  Maria Adams, Darvesh Gorhe, Chris Cyril, Joao Geraldini, Adam Gomez, Kimberly Kopp

Inspired by Nordic solutions to hilly terrain, gondolas improve accessibility around campus and assist in transporting students and microtransit vehicles up and down campus.

PROBLEM
UC San Diego hills are a major deterrent for intra-campus mobility

GOAL
Increase efficient mobility across campus with a gondola skyway system

FEATURES
- Cable car connects the entire campus from SIO to Pepper Canyon
- Network of bike lifts placed in strategic steep paths for those who want to avoid the cable car or heights

SEMI-FINALIST
UCSD DIGITAL ASSISTANT

ALIEN  Stefanie Mendoza, John Robert Wilson, Saurabh Nimsarkar, Divya Seshradi, Aaron Truong, Sanae Wilson

Smart routing app uses AI and acts as a digital assistant to suggest transportation methods based on personal preferences and live traffic; optimized for students’ efficiency.

PROBLEM
“Last mile” issue from the mobility hub to destination

GOAL
Optimize travel time for students

FEATURES
- Uses AI to suggest transportation methods based on class schedule, user preference pattern, and congestion
- Offers real-time updates and suggests other methods of transportation when there are delays
- School can use student data to improve traffic conditions and implement smoother transit options

SEMI-FINALIST
Three distinct proposals on shifting the perception of public transportation and its unreliability: a customizable app, an interactive kiosk, and positive rebranding.

PROBLEM
Public transportation is perceived as unreliable

GOAL
Consolidate trolley station information into digestible mobile content

FEATURES
- **Solution 1**: app that helps navigate around campus
- **Solution 2**: kiosk that displays transit options
- **Solution 3**: positive rebranding to build trust and reliability
Smart technology puts together real-time information on the best paths to take, places to visit, and things to do; with the option to go mobile, King Triton facilitates wayfinding on campus.

PROBLEM
Campus visitors have difficulties navigating to their destinations
Unfamiliarity with transportation options for visitors

GOAL
Improve wayfinding for visitors through interactive stations

FEATURES
- King Triton assists new visitors in getting to their destinations from the mobility hub
- Provides accessible, real-time information
- Identifies optimized paths, available amenities, and ongoing events
- Offers the option to go mobile
Color coded paths and signage use virtual reality to assist navigation, using landmarks to support wayfinding while showcasing digital work, histories, events, and student art.

PROBLEM
UC San Diego campus navigation difficulties
Newcomers are physically disoriented

GOAL
Sufficient wayfinding technology

FEATURES
- Color coded paths & signage
- Incorporate virtual reality to showcase digital artwork
- QR Codes to educate visitors on college history, events, landmark history, and virtual galleries of student artwork
Interactive wayfinding signage placed on desire lines between campus connect services and amenities to safe paths and transit schedule information.

PROBLEM
Rider mobility impairments
Safety

GOAL
Guide people to and from Trolley and Gilman Transit Center

FEATURES
- Iconographic signage to bridge language barriers
- Stations at mobility hub and nearby intersections
THE TYDE APP
IKIGAI DESIGN COLLECTIVE  Julian Atienza, Brian Chen, Will Everden, Hyseoo Kim, Cameron Lewis, Nam Nguyen, Darshan Patel, Cindy Vides

Utilizing machine learning, Tyde incorporates multi-modal movement to maximize transportation efficiency and produces paths based on transit options, duration, and cost.

PROBLEM
Crowding and congestion
Dynamic campus

GOAL
Optimize paths of travel for an ever-changing, active campus

FEATURES
- Utilizes anonymous aggregated location data and machine-learning for micromobile transportation
- App can be displayed on phones and kiosks
MEMORY MAP

NAVIGATORS  Alex Knyazev, Melissa Reynolds, Ashlesha Sathe, Mihir Sathe

Color-coded map system leverages campus landmarks to ground users to current location and connects the campus to Pepper Canyon Mobility Hub.

PROBLEM
Large campus is difficult to navigate with current visual navigation system

GOAL
Implement a color-coded system that leverages unique campus landmarks

FEATURES
- Use of mental maps
- Color-coding
- Dominate toponyms for map augmentation
- Accessibility features
Kiosk placement in every college provides information about Stuart Art Collection pieces to promote campus art; kiosks also help orient people by providing navigation around campus.

**PROBLEM**
Lack of events and culture advertisements around campus

**GOAL**
Introduce people to the Stuart Art Collection and provide navigation around campus

**FEATURES**
- Kiosk locations at every college to ground navigation
- Offers information on the Stuart Art Collection
Mobile app guides visitors around campus by providing locational information on campus points of interest, alleviating visitor congestion so that visitors are more knowledgeable about the area.

**PROBLEM**
General lack of familiarity with the region and its existing resources
Congestion

**GOAL**
Provide real-time updates, information, and e-tickets for the trolley system

**FEATURES**
- Live updates on campus events and trolley/shuttle arrival times
- Provides points of interest, similarly to Google Maps

**PROJECT SHOOTING STAR**
704D  Jason Cai, Andy Fong, Daniel Gomez, Andrew Liang, Sina Mokhtarian, James Phillips, Omkar Rao
Modeled after airport terminals, a moving walkway transports pedestrians across campus with a touch of natural elements to soothe travelers.

**PROBLEM**  
Location of the station is decentralized

**GOAL**  
Alleviate a pedestrian pain point between Rupertus Way and central campus

**FEATURES**
- Moving walkway along Rupertus Way
- Glass enclosure to protect people inside
- Resembles a terrarium
- Breaks in the walkway to accommodate foot traffic and need to get off at different places
Minimize the “last mile” problem for students by creating three routes that shuttle to major campus points, minimizing effort made to travel.

PROBLEM
“Last mile” between trolley and destination points

GOAL
Connect students more easily to their destinations and minimize travel time and effort

FEATURES
- 3 routes covering major parts of campus
- runs on electricity
- Pepperides can be reserved through the app
- Each vehicle carries up to 10 students
- Students may upload schedules to the app for personalized transit planning
THE WAVELENGTH
DYNAMIC DESIGNERS  Bryan Chen, Sarah Diaz, Xinyi Huang

A skatepark breaks building clusters, doubling as an art piece and recreational area for students to gather in the open air.

PROBLEM
Lack of usable open space on campus
Building congestion

GOAL
Develop an open-air recreational space for students

FEATURES
- Glow-in-the-dark aesthetics
- Complimentary stepped seating
- Art exhibit opportunity for students
The Canyon Daddy

Diego Amador, April Gau, Albert Hernandez, Amaya Mali, Rishabh Singhal, Enrique Zavala, Basil Hu

Canyon Daddy item transportation service helps students reach their destinations faster and minimizes collisions, tardiness, exhaustion, and personal property damage from the heavy traveling.

**Problem**
Safety
Students are often exhausted from carrying their belongings across campus

**Goal**
Provide station resources and transportation infrastructure for item delivery to lockers around campus

**Features**
- App-based locker system
- Transports heavy materials upon arrival to destination
- Similar to Amazon Lockers
Open-air amphitheatre encourages community engagement and establishes a welcoming environment upon trolley station arrival, offering a clear sense of arrival.

PROBLEM
Students don’t feel a sense of community at UC San Diego

GOAL
Develop an interactive space for community-building

FEATURES
- Open-air amphitheatre to promote outdoor community life
- Information station to showcase campus events and directions
- Piezo bridge that welcomes visitors with a built-in sign
THE NEIGHBORHOOD
SPICY HOT CHILI PEPPERS  Hao-in Choi, Viviana Davila, Vince Li, Connie Luong, Niki Tran, Cynthia Van

The Neighborhood is a culturally immersive hub that brings the community together by providing an active space for vendors, local businesses, and students to host events and pop-up shops.

PROBLEM
Campus structure obstructs growth of students beyond academics

GOAL
Promote a stronger sense of community

FEATURES
- Farmer’s Market and community garden
- Versatile space for students and local businesses to host activities and businesses
An outdoor convenience store provides snacks and information about transportation and navigation, acting as a one-stop location for student needs.

**PROBLEM**
People are unfamiliar with a large and spread-out campus

**GOAL**
Integrate UC San Diego culture while serving transportation and navigational purposes

**FEATURES**
- Convenience store sells snacks, souvenirs, and other useful amenities for last-minute purchases
- Builds culture and image around this “T-Spot”
An Arts & Humanities corridor uses artful wayfinding that integrates visual and performing arts facilities on campus, promoting student art and culture.

**PROBLEM**
Lack of attention to student art on campus

**GOAL**
Enhance the student experience and provide opportunities for showcasing student art

**FEATURES**
- Artful wayfinding
- Integrated, legible arts corridor
- Trolley station plaza that showcases student art
Art installations direct visitors away from student pathways toward their desired locations, allowing students to navigate through minimized congestion.

PROBLEM
Congestion
Making UC San Diego a destination for visitors

GOAL
Reduce congestion by seamlessly guiding visitors towards their destinations

FEATURES
- Solar-powered kinetic art exhibit in collaboration with the Visual Arts Department
- Light color changes depending on speed to encourage movement
Restructuring path textures and materials will distinguish more organized pedestrian and micromobile pathways, leveraging visual navigation.

PROBLEM
Micromobile options often compete with foot traffic
Safety

GOAL
Promote safety and accessibility for all parties

FEATURES
- Smooth concrete pavers divided into sections by strips of textured cobblestones
- Designated center lane for people on wheels and crosswalks that function as “speed bumps” for cyclists and skateboarders
Encourage visitors to participate in community activities by offering special features, such as stationing food trucks nearby the station and ensuring that micromobile options are present for continuing travelers.

PROBLEM
Lack of social community at UC San Diego

GOAL
Create an interactive and dynamic mobility hub

FEATURES
- Solution 1: Symbol Walkway that represents UC San Diego
- Solution 2: offer a convenient mobility system to ensure that Micromobile options are present at the trolley station
- Solution 3: unique food trucks located on Warren Field for different cultures
Visually appealing docking stations centralize microtransit vehicles to designated spaces in order to declutter traveling pathways, minimizing hazards and collisions.

PROBLEM
Safety and clutter
Microtransit rideshare vehicles are frequently parked in walkways and intersections

GOAL
Declutter open spaces with centralized docking stations

FEATURES
- Multipurpose docking stations offer versatility
- Interactive light displays are dynamic, inclusive, and entertaining
- Solar panels for charging
An immersive onboarding system utilizes colors and symbols to guide users to their destinations by simplifying the steps needed to reach the destination.

**PROBLEM**
New riders need an intuitive way to use the trolley system

**GOAL**
Make the trolley experience intuitive and easy to navigate

**FEATURES**
- Assist users with finding their destination, route, and schedule
- Trip planner optimizes MTS routes into a detachable travel plan
- Unobtrusive ground-level signs distinguishing trolleys and their directions
UCSD MOBILITY NETWORK: IMPROVING CAMPUS NAVIGATION

SANDAD  Sarah Austin, Rachael Escobedo, Jae Lee

A wayfinding app orients users in their physical space and allows for easier navigation, improving congestion from users who are unfamiliar with the area.

PROBLEM
Navigating complex landscape of UC San Diego

GOAL
Assist visitors in planning and navigating campus

FEATURES
- Assistance is tailored to the type of user (student, faculty, visitor, other)
EXTRA THANKS TO:

DOCUMENTATION
Ash Eliza Smith, Alice Medrano, Yimeng Sun, Qi Yi Fan, Clint Evangelista, Steven Phung

EDITING
Christal Vo, Kathryn Link-Oberstar

SUPERMENTORS
Kyle Schertzing, Josh Kavanaugh
EXTRA STUFF NOT GOING TO USE BUT HERE JUST IN CASE....
THE DESIGN CHALLENGE
Increase mobility and access for all between the light rail trolley station and the broader UC San Diego campus via the Pepper Canyon Mobility Hub.
THE STRATEGIC OPPORTUNITY
<table>
<thead>
<tr>
<th>TIME HORIZONS</th>
<th>NOW</th>
<th>NEAR</th>
<th>FUTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>INTERVENE + HACK THE SYSTEM</td>
<td>2020-2030</td>
<td>AUGMENT, ADJUST, ADD TO OR DISRUPT CAMPUS PLANS</td>
</tr>
</tbody>
</table>
Composition of Students, Staff, and Other

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>209</td>
</tr>
<tr>
<td>Staff</td>
<td>2</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
</tr>
</tbody>
</table>

- Students: 69.2%
- Staff: 7.7%
- Other: 23.1%
Participants

Aaron Truong      Brian Han
Abigail Kostuvosky Bryan Chen
Adam Gomez        Bryan Young
Aditi Mukund      Byungchang Kim
Aditya Mangharam  Cameron Lewis
Albert Hernandez  Chris Cyril
Alex Branch       Christina Leuong
Alex Knyazev      Cindy Vides
Alexis Vergnet    Connie Luong
Alicia Tam        Cynthia Van
Alistair Vizuet   Daniel Gomez
Allison Chen      Daniel Kim
Alvaro Mejia      Daphne Kim
Amaya Mali        Darin Lee
Andrew Liang      Darshans Patel
Andy Fong         Darvesh Gorhe
Anne Xu           David West
April Gau         Devanshu Gulati
Basil Hu          Dian Yu
Benjamin Yang     Diego Amador
Brandon Dang      Divya Seshradi
Doris Liu         Dylan Holub
Erika Morozumi    Enrique Zavala
Felicity Yin      Fernando Morales
Gabriel Aganon    Grace Chen
Gregory Boscaiu   Hao-in Choi
Hana Vaid         Haoyi Tian
Horim Yu          Hyseoo Kim
Inna Karamyan     Isabel Rivera
Jaclyn Chao       Jaclyn Chin
Jade Muckler      Jae Lee
James Phillips    Jason Cai
Jefferson Chen    Jennifer Phelps
Jiali Qian        Jiarui Han
Jiayi Li          Jinhao Liu
João Geraldini    Jodi Kim
John Abboud       John Robert Wilson
Julia Xu          Julian Atienza
Kam Look          Katrina Warren
Katya Noble       Kegan Wong
Kenny Ta          Kevin Barron
Kim Luong         Kimberly Kopp
Kwanbok Roh       Kristi Lin
Kyle Mumm         Lauran Irion
Laron Ring        Ludi Duhay
Maddy Froemming   Maria Adams
Marina Pardini    Matias Flores
Maya Kulkarni     Melissa Reynolds
Michelle Duong    Michelle Nguyen
Mihir Sathe       Mingzuan Fan
Myah Lunceford    Najeem Kanishka
Nam Nguyen        Natalie Duprey
Natalie Tran      Neve Foresti
Niki Tran         Nyla Hekier
Omkar Rao         Osgood Gunawan
Osvaldo Vasquez Lara Owen Cruise
Owen Getz         Pablo Diaz
Pooja Yadav       Priyan Vaitthilingam
Rachel Escobedo   Raquel Adessi
Raveen Johal      Rishabh Singhal
Robert Huffstutler Ruoyu Zhang
Ryan Chambers     Samual Huang
Sanae Wilson      Sara Mei-Yuen Wang
Sasri Dedigama    Sarah Austin
SidraN S. Nimsarkar Sarah Diaz
Seyra Dediqama    Sasri Dedigama
Shihao Shen       Sicily Panattil
Sidney Chan       Yizhi Yuan
Sina Mokhtarian   Yiwen Hou
Sophia Boss       Yundi Yang
Sophie Siemsgluess Zijan Ding
Stefanie Mendoza  Stephan Somers
Stephanie Ellsworth Theo Duffaut
Thomas Xu         Tianfu Zhang
Viviana Davila    Vince Li
Whitney Tsai      Will Everden
Xinyi Huang       Yijun Wang
Yingxin Long      Yijing Siu
Senyan Luo        Yiwen Hou
Shihao Shen       Yizhi Yuan
Sidney Chan       Yundi Yang
Zijan Ding
<table>
<thead>
<tr>
<th>Participants Cont.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron Truong</td>
</tr>
<tr>
<td>Abigail Kostuvosky</td>
</tr>
<tr>
<td>Adam Gomez</td>
</tr>
<tr>
<td>Aditi Mukund</td>
</tr>
<tr>
<td>Aditya Mangharam</td>
</tr>
<tr>
<td>Albert Hernandez</td>
</tr>
<tr>
<td>Alex Branch</td>
</tr>
<tr>
<td>Alex Knyazev</td>
</tr>
<tr>
<td>Alexis Vergnet</td>
</tr>
<tr>
<td>Alicia Tam</td>
</tr>
<tr>
<td>Alistair Vizuet</td>
</tr>
<tr>
<td>Allison Chin</td>
</tr>
<tr>
<td>Alvaro Mejia</td>
</tr>
<tr>
<td>Amaya Mali</td>
</tr>
<tr>
<td>Andrew Liang</td>
</tr>
<tr>
<td>Andy Fong</td>
</tr>
<tr>
<td>Anne Xu</td>
</tr>
<tr>
<td>April Gau</td>
</tr>
<tr>
<td>Basil Hu</td>
</tr>
<tr>
<td>Benjamin Yang</td>
</tr>
<tr>
<td>Brandon Dang</td>
</tr>
<tr>
<td>Brian Han</td>
</tr>
<tr>
<td>Bryan Chen</td>
</tr>
<tr>
<td>Bryan Young</td>
</tr>
<tr>
<td>Byungchang Kim</td>
</tr>
<tr>
<td>Cameron Lewis</td>
</tr>
<tr>
<td>Chris Cyril</td>
</tr>
<tr>
<td>Christina Leuong</td>
</tr>
<tr>
<td>Cindy Vides</td>
</tr>
<tr>
<td>Connie Luong</td>
</tr>
<tr>
<td>Cynthia Van</td>
</tr>
<tr>
<td>Daniel Gomez</td>
</tr>
<tr>
<td>Daniel Kim</td>
</tr>
<tr>
<td>Daphne Kim</td>
</tr>
<tr>
<td>Darin Lee</td>
</tr>
<tr>
<td>Darshan Patel</td>
</tr>
<tr>
<td>Darvesh Gorhe</td>
</tr>
<tr>
<td>David West</td>
</tr>
<tr>
<td>Devanshu Gulati</td>
</tr>
<tr>
<td>Dian Yu</td>
</tr>
<tr>
<td>Diego Amador</td>
</tr>
<tr>
<td>Divya Seshradi</td>
</tr>
<tr>
<td>Doris Liu</td>
</tr>
<tr>
<td>Dylan Holub</td>
</tr>
<tr>
<td>Enrique Zavala</td>
</tr>
<tr>
<td>Erika Morozumi</td>
</tr>
<tr>
<td>Felicity Yin</td>
</tr>
<tr>
<td>Fernando Morales</td>
</tr>
<tr>
<td>Gabriel Aganon</td>
</tr>
<tr>
<td>Grace Chen</td>
</tr>
<tr>
<td>Gregory Boscaiu</td>
</tr>
<tr>
<td>Griffin Mittleman</td>
</tr>
<tr>
<td>Hana Vaid</td>
</tr>
<tr>
<td>Hao-in Choi</td>
</tr>
<tr>
<td>Haoyi Tian</td>
</tr>
<tr>
<td>Horim Yu</td>
</tr>
<tr>
<td>Hyseo Kim</td>
</tr>
<tr>
<td>Inna Karamyan</td>
</tr>
<tr>
<td>Isabel Rivera</td>
</tr>
<tr>
<td>Jaclyn Chao</td>
</tr>
<tr>
<td>Jaclyn Chin</td>
</tr>
<tr>
<td>Jade Muckler</td>
</tr>
<tr>
<td>Jae Lee</td>
</tr>
<tr>
<td>James Phillips</td>
</tr>
<tr>
<td>Jason Cai</td>
</tr>
<tr>
<td>Jefferson Chen</td>
</tr>
<tr>
<td>Jennifer Phelps</td>
</tr>
<tr>
<td>Jiali Qian</td>
</tr>
<tr>
<td>Jiarui Han</td>
</tr>
<tr>
<td>Jiayi Li</td>
</tr>
<tr>
<td>Jinhao Liu</td>
</tr>
<tr>
<td>João Geraldini</td>
</tr>
<tr>
<td>Jodi Kim</td>
</tr>
<tr>
<td>John Abboud</td>
</tr>
<tr>
<td>John JoungSeo Kim</td>
</tr>
<tr>
<td>John Robert Wilson</td>
</tr>
<tr>
<td>Julia Xu</td>
</tr>
<tr>
<td>Julian Atienza</td>
</tr>
<tr>
<td>Kam Look</td>
</tr>
<tr>
<td>Katrina Warren</td>
</tr>
<tr>
<td>Katya Noble</td>
</tr>
<tr>
<td>Kegan Wong</td>
</tr>
<tr>
<td>Kenny Ta</td>
</tr>
<tr>
<td>Kevin Barron</td>
</tr>
<tr>
<td>Kim Luong</td>
</tr>
<tr>
<td>Kimberly Kopp</td>
</tr>
<tr>
<td>Kristi Lin</td>
</tr>
<tr>
<td>Kwanbok Roh</td>
</tr>
<tr>
<td>Kyle Mumm</td>
</tr>
<tr>
<td>Lauran Irion</td>
</tr>
<tr>
<td>Lauren Ring</td>
</tr>
<tr>
<td>Ludi Duhay</td>
</tr>
<tr>
<td>Maddy Froemming</td>
</tr>
<tr>
<td>Maria Adams</td>
</tr>
<tr>
<td>Marina Pardini</td>
</tr>
<tr>
<td>Matias Flores</td>
</tr>
<tr>
<td>Maya Kulkarni</td>
</tr>
<tr>
<td>Melissa Reynolds</td>
</tr>
<tr>
<td>Michelle Duong</td>
</tr>
<tr>
<td>Michelle Nguyen</td>
</tr>
<tr>
<td>Mihir Sathe</td>
</tr>
<tr>
<td>Mingzuan Fan</td>
</tr>
<tr>
<td>Myah Lunceford</td>
</tr>
<tr>
<td>Najeem Kanishka</td>
</tr>
<tr>
<td>Nam Nguyen</td>
</tr>
<tr>
<td>Natalie Duprey</td>
</tr>
<tr>
<td>Natalie Tran</td>
</tr>
<tr>
<td>Neve Foresti</td>
</tr>
<tr>
<td>Niki Tran</td>
</tr>
<tr>
<td>Nyla Hekier</td>
</tr>
<tr>
<td>Omkar Rao</td>
</tr>
<tr>
<td>Osgood Gunawan</td>
</tr>
<tr>
<td>Osvaldo Vasquez Lara</td>
</tr>
<tr>
<td>Owen Cruise</td>
</tr>
<tr>
<td>Owen Getz</td>
</tr>
<tr>
<td>Pablo Diaz</td>
</tr>
<tr>
<td>Pooja Yadav</td>
</tr>
<tr>
<td>Priyan Vaithilingham</td>
</tr>
<tr>
<td>Rachael Escobedo</td>
</tr>
<tr>
<td>Raquel Adessi</td>
</tr>
<tr>
<td>Raveen Johal</td>
</tr>
<tr>
<td>Rishabh Singhal</td>
</tr>
<tr>
<td>Robert Huffstutler</td>
</tr>
<tr>
<td>Ruoyu Zhang</td>
</tr>
<tr>
<td>Ryan Chambers</td>
</tr>
<tr>
<td>Samual Huang</td>
</tr>
<tr>
<td>Sanae Wilson</td>
</tr>
<tr>
<td>Sara Mei-Yuen Wang</td>
</tr>
<tr>
<td>Sarah Austin</td>
</tr>
<tr>
<td>Sarah Diaz</td>
</tr>
<tr>
<td>Sasri Dedigama</td>
</tr>
<tr>
<td>Saurabh S. Nimsarkar</td>
</tr>
</tbody>
</table>
Participants Cont.

Senyan Luo       Xinyi Huang
Shihao Shen      Xirui He
Sicily Panattil  Yijun Wang
Sidney Chan      Yingxin Long
Signe Wurtz      Yingying Siu
Sina Mokhtarian  Yiweng Hou
Sophia Boss      Yizhi Yuan
Sophie Siemsgluess  Yundi Yang
Stefanie Mendoza Zijan Ding
Stephan Somers
Stephanie Ellsworth
Tamuz Hod
Theo Duffaut
Thomas Xu
Tianfu Zhang
Vi Sinh
Vince Li
Viviana Davila
Whitney Tsai
Will Everden