

Architecture Students Design & Build Multi-purpose “YOUnity” Bench for Multicultural Center at Cal Poly’s University Union

Building the bench, they designed, for a place they value, provides students rich educational experience and will result in an improved space just outside Cal Poly’s Multicultural Center.

Cal Poly San Luis Obispo (March 31, 2020) -

The “YOUnity Bench” is the most recent in a series of site-specific benches designed and built by **Architecture Professor Jonathan Reich’s** design lab called “**Cave Studio**.” Similar to the other Cave Studio benches, YOUnity Bench is fixed and added to a site that was leftover, in-between, under-utilized and available - revealing the latent potential of such a place and turning it into a vital comfortable social space, in this case **outside the Multicultural Center at the University Union**. The YOUnity bench is over 36’ long and provides seating, a small group table, and counter-height surfaces in order to transform the patio into a more comfortable place to sit, study, have small meetings and to support activities – in general to improve the existing mini-plaza as a space for diverse, inclusive, social interaction. The design helps realize the site’s full potential for use by the MultiCultural Center as well as other Cal Poly users in a variety of ways.

A collaborative project:

“YOUnity Bench” was designed and built by a diverse team of Cal Poly Architecture students to celebrate how education promotes and benefits from diversity, inclusion, and civil social discourse by enhancing multi-cultural understanding. Fourth-year Architecture students **Lettie Lopez, Nathan Lundberg, Kevin Marer, Geoffrey Sanhueza, and Andrew Stratford**, selected the site, designed the bench, and pre-fabricated the structure in Spring Quarter 2019. They presented the project to **Marbeya Montero** of the **Multi-Cultural Center** who helped it get approved by the **University Union Advisory Board (UUAB)**. Then former **Director of the Cross-Cultural Center Bryan Hubain** presented the project to **Vice President of Student Affairs and Dean of Students Dr. Kathleen N. McMahon** who signed the application for the building permit. **Michael Hogan and Cal Poly Facilities** approved the building permit in October and the team began construction in November 2019.

A useful, durable artifact and example of sustainable design for a specific place:

Bolted together and designed to hang securely on an existing low concrete wall, the YOUnity Bench is clad with a durable very low maintenance, composite decking made from 100% recycled material; bamboo fibers and HPDE (water bottle plastic). The decking was donated to Cave Studio by **CaliBamboo** of San Diego, California. The structure is hot-dip galvanized steel with Forest Stewardship Council Certified Redwood “sleepers” as interface between steel and decking. We believe this site-specific ingeniously designed comfortable bench of sustainable materials, made by Cal Poly students, represents the value we place on particular settings and diverse uses – and our education, better than the mass-produced concrete benches distributed throughout the campus.

A bench with a message:

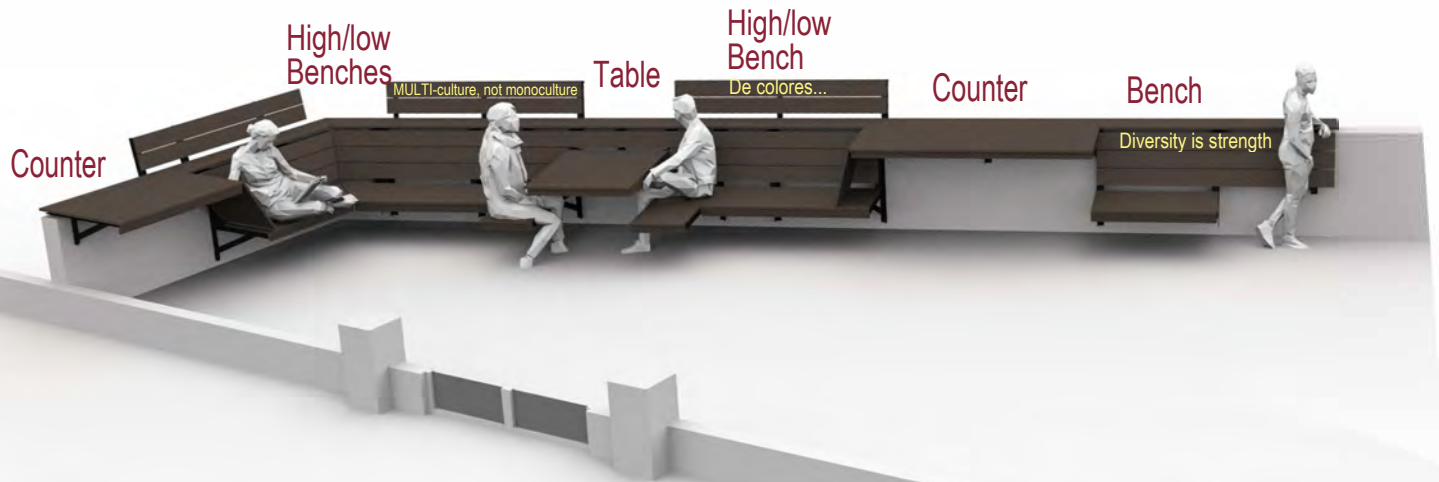
Places we make are persistent evidence of what we value or believe in. Such places continuously enculturate the young, orient both visitor and habitué in time and space, articulate attitudes, express feelings, and cue individual and social behavior. Designed places serve as a channel of social communication through which a commonwealth of denotative, connotative, and prescriptive images become established - which are prerequisites to a cooperative social life. To this end the design team has solicited short phrases or quotations that will be engraved into the bench to memorialize the larger meaning and objectives of the project and why we did the project where we did, similar to what was done at the Cave Studio “Biblio Bench” in front of Kennedy Library. Phrases suggested to be engraved so far include: “*MULTIculture (not monoculture)*” and “*Diversity is resilience !*”

###

If you would like more information about this project, please contact Professor Jonathan Reich at jreich@calpoly.edu



The YOUnity Bench will include crowd-sourced quotes related to diversity, equity, & inclusion. contenders so far are: "Diversity is strength" , "De colores..." , & "MULTI-culture, not monoculture."



This is a combination bench / table / counter being built right now to serve social events outside the Multi-Cultural Center at the University Union as well as for casual use





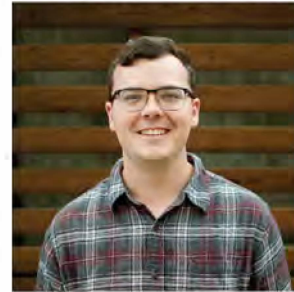
APPROVED
By mhogan at 4:45 pm, Oct 22, 2019

YOUnity Bench | Cultural Cove

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A7.0	SPECIFICATIONS
A8.0	RENDERS

STUDENTS INVOLVED



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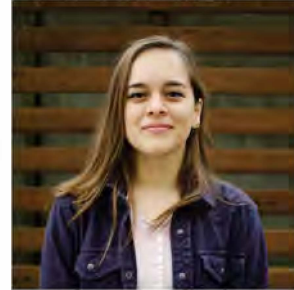
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Leticia Edith Lopez
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KANGL Group

Cave Studio Productions
CPSLO Bldg. 05-108
San Luis Obispo, CA 93407

INSTRUCTOR:

JONATHAN REICH 8058018848

STUDENTS:

KEVIN MARER	9166228622
ANDREW STRATFORD	7208626243
NATHAN LUNDBERG	6507736590
GEOFFREY SANHUEZA	6268078421
LETICIA EDITH LOPEZ	7078576126

GENERAL NOTES

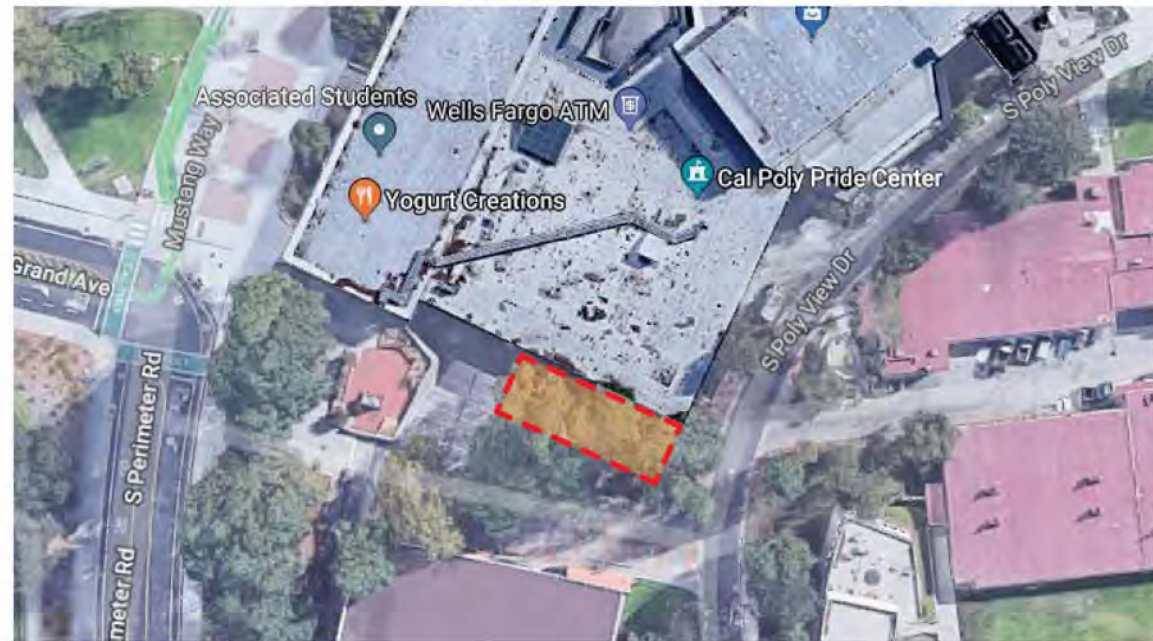
- 1 - ALL WORK SHALL CONFORM TO;
(A) THE MINIMUM STANDARDS OF THE CALIFORNIA BUILDING CODE THAT MAY BE APPLICABLE TO THIS INSTALLATION.
(C) ANY SPECIAL CONDITIONS REQUIRED BY ALL LOCAL GOVERNING AGENCIES OR CAL POLY.
- 2 - ALL WORK DESCRIBED IN THE DRAWINGS WILL BE DONE BY STUDENTS AND SUPERVISED BY PROFESSOR JONATHAN REICH.
- 3 - DIMENSIONS SHOWN SHALL TAKE PRECEDENCE OVER DRAWING SCALE OR PROPORTION. LARGER SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS.
- 4 - APPLICANTS ACCEPT RESPONSIBILITY FOR INSTALLING, MAINTAINING, AND REMOVING BENCH AS REQUIRED.
- 5 - DESIGNATED PORTION OF BENCH MEETS ACCESS COMPLIANCE PER SECTION 11B-903 OF THE CALIFORNIA ACCESS COMPLIANCE ADVISORY REFERENCE MANUAL.
 - (11B-903.3 SIZE) BENCHES SHALL HAVE SEATS THAT ARE 48" LONG MINIMUM AND 20" DEEP MINIMUM AND 24" DEEP MAXIMUM.
 - (11B-903.4 BACK SUPPORT) THE BENCH SHALL PROVIDE FOR BACK SUPPORT OF SHALL BE AFFIXED TO A WALL ALONG ITS LONG DIMENSION. BACK SUPPORT SHALL BE 48" LONG MINIMUM AND SHALL EXTEND FROM A POINT 2" MAXIMUM ABOVE THE SEAT SURFACE TO A POINT 18" MINIMUM ABOVE THE SEAT SURFACE. BACK SUPPORT SHALL BE 2 1/2" MAXIMUM FROM THE REAR EDGE OF THE SEAT MEASURED HORIZONTALLY.
 - (11B-903.5 HEIGHT) THE TOP OF THE BENCH SEAT SURFACE SHALL BE 17" MINIMUM AND 19" MAXIMUM ABOVE THE FINISHED FLOOR OR GROUND.

STATEMENT OF INTENT

"YOUnity Bench" provides useful fixed seating and table/counter surfaces to the paved area immediately outside the new exterior doors recently installed in the Multi-Cultural Center while leaving the floor area of the patio itself available for flexible uses. This project was developed with full cooperation of the ASI UU Advisory Board and representatives from the Multi-Cultural Center.

This design helps realize the site's full potential and to be used by the Multi-Cultural Center users and other Cal Poly students. A quote selected by University Union Advisory Board and Multi-Cultural Center is intended to be engraved on the project.

VICINITY MAP



YOUnity Bench | Cultural Cove
Cal Poly San Luis Obispo, California

General Information

No.	REVISION	DATE

DATE: May 31, 2019

Sheet

A 0.0

APPROVED
By mhogan at 4:47 pm, Oct 22, 2019

Yosemite TruOrganics™
Composite Decking



The granite majesty of the High Sierra is captured in Yosemite TruOrganics™ Composite Decking, providing an outdoor refuge where you can step away from reality and lose your thoughts in wonder. Stately gray planks recall the towering awe of Half Dome -- inviting adventure and escape. Like its namesake valley, Yosemite offers unmatched resiliency, resulting in a low-maintenance space that liberates you to enjoy your #DeckLife.

The Most Realistic Wood Decking Available

- **Low-Gloss Matte Surface** - Enabling more natural, modern designs
- **Next Generation Construction** - 3G core ensures higher tensile strength & resiliency
- **Full Wrap Shield** - A four-sided ProFormance360™ wrap guards against wear and tear
- **Ultra-Low Maintenance** - Weather & stain resistant with no painting, sealing, or sanding required
- **25-Year Residential Warranty** - Quality guaranteed



Durability or Bust



Permission to Party



Weather Resistant



Realistic Wood Grain



Eco-Friendly

Model #:	7502004200
Deck Type:	Composite
Core:	Wood Plastic Composite
Color:	Yosemite
Plank Length:	16 feet
Plank Width:	5-7/16 inches
Plank Thickness:	7/8 inch
LFT./Box:	32 LFT.
Sqft./Box:	14.48 sqft.
Surface:	Wood Grain / Flat
Edge Milling:	Hidden fastener, grooved
Hardness:	3364psi (flexural strength ASTM D7032)
Maximum Joist Span:	16 inches on center
Minimum End to End Gap:	1/16 inch per 20°
LEED Points:	MRc4 , EQc4.4
Installation:	Residential, Commercial
Residential Warranty:	25 Years
Commercial Warranty:	10 Years



KANGL Group

Cave Studio Productions
CPSLO Bldg. 05-108
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8058018848

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YOUunity Bench | Cultural Cove
Cal Poly San Luis Obispo, California

Specifications

No.	REVISION	DATE

DATE: May 31, 2019

Sheet

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YOUnity Bench built outside MultiCultural Center to promote discussions on diversity

MEGHAN PICKETT - FEBRUARY 3, 2020



A group of Cal Poly architecture students are creating a “YOUnity Bench” outside the MultiCultural Center (MCC) of entirely recycled materials to celebrate how education promotes and benefits from diversity, inclusion and civil discourse by enhancing multi-cultural understanding.

The YOUnity Bench was designed by architecture seniors Kevin Marer, Andrew Stratford, Nathan Lundberg, Geoffrey Sanhueza and Leticia Lopez, with the help of architecture professor Jonathan Reich.

The layout was designed to utilize the entire space so students could benefit from it in a variety of ways, such as through hosting guest speakers or other events, according to Sanhueza.

“We went to the MCC first to get feedback on our original design and see how they would want the different aspects of this area being used, so that we could edit and accommodate for those various activities,” Marer said.

The surface is made of tough, weather resistant material donated to the students by CaliBamboo and is made entirely from recycled bamboo and plastic water bottles. The fixed seating and counter surfaces line about 25 feet around the wall outside the doors of the MCC while keeping the patio floor area open.

“The MCC holds events and dialogues every week, such as Talk It Out Tuesday, which I’ve personally been a part of and it gets pretty crowded inside,” Lopez said.

“This is a perfect opportunity, especially when it gets nice out, to open up the doors and have people spill out to the outside or just move the entire dialogue out here.”

The team’s goal for this project was to create something that was not only functional, but also an outside extension of the MCC’s positive and inclusive space, according to Reich.

“These projects are meant to be very useful, very durable, principled on themes that we think are important and values that we want to promote for places that we care about,” Reich said. “We’re not just building a ‘cute, little thing’ — we have a lot of deep values behind it.”

The students want to engrave short phrases and positive messages into the YOUnity bench to emphasize the bigger meaning and purpose behind this project.

“This bench is not generic, not mass produced, but instead, site- and people-specific,” Reich said. “It really is the best aspects of design made by good people.”











NEWS

Student-built bench completed outside Kennedy Library

AIDAN MCGLOIN - NOVEMBER 16, 2018



Carolyne Sysmans | Mustang News

The finishing touches have been put on a new bench outside of Robert E. Kennedy Library, designed and built entirely by three architecture seniors to promote tolerance. The project was built for Architectural Design 4.3 (ARCH 453), commonly referred to as “Cave Studio.”

“It’s such an awesome experience to design something raw like this,” architecture senior Sergio Ochoa said.

Ochoa was joined by architecture seniors Jackie Budidharma and Lucas Johnston on the project. The bench has a quote from Helen Keller that reads, “The highest result of education is tolerance.”

✈ The group decided to build their bench in front of Kennedy Library, where many students will see the quote. They also hope to create a sense of community.

“We saw a lot of potential at this site,” Budidharma said.



Architecture senior Sergio Ochoa worked during his studio time to install a bench in front of Kennedy Library. Aidan McGloin | Mustang News

The three students came from different backgrounds and began designing the bench after conversations were swarming on campus about the alleged blackface incident, Budidharma said.

The bench is made of galvanized steel and composite decking made of recycled bamboo donated by [Cali Bamboo](#). Bamboo is quicker to grow than other woods and better for the environment.

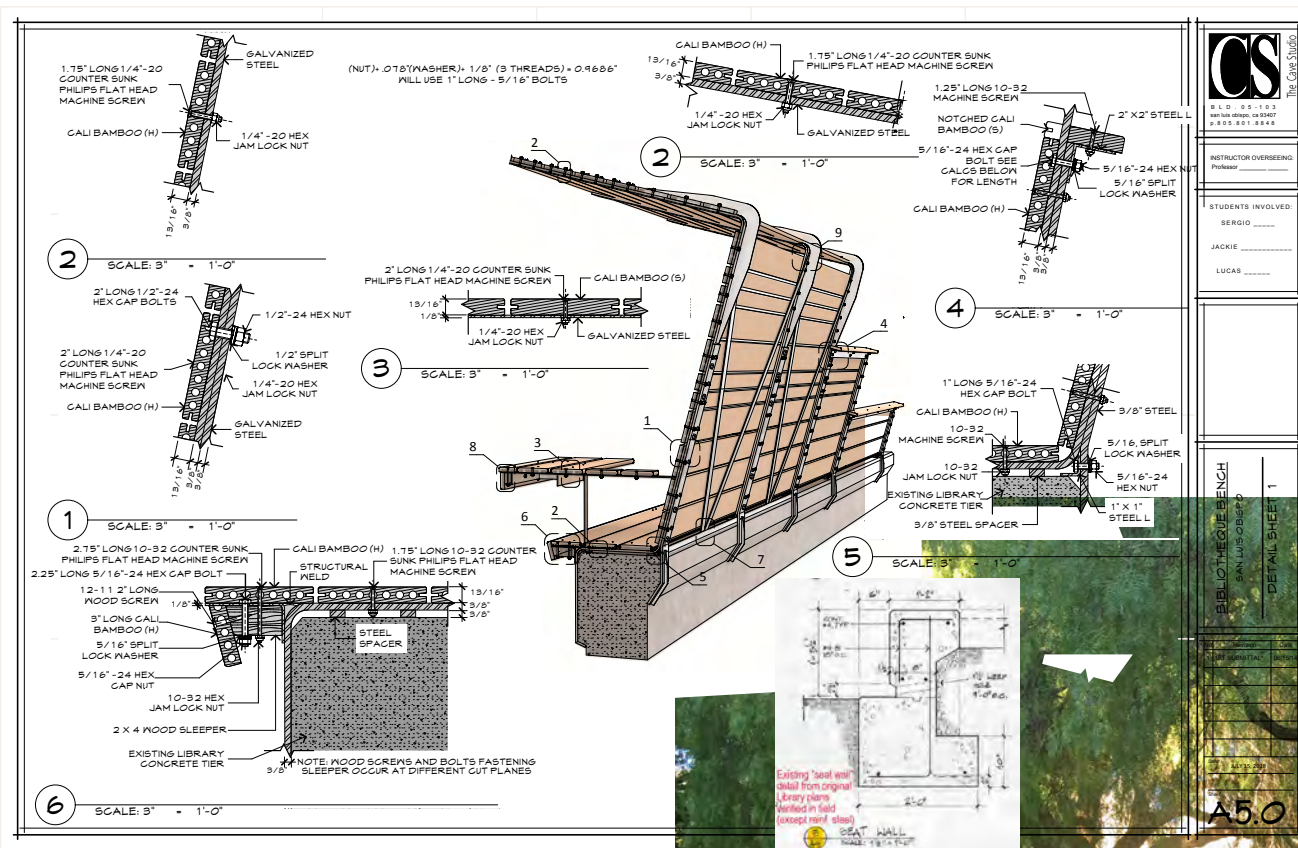
Cali Bamboo was surprised to see the materials they donated to the department used for benches, architecture professor Jonathan Reich said. The company said they were excited to see the finished project.

“We’re trying to emphasize green building materials in these projects,” Reich said, who has supervised the construction of several benches around the architecture building.

Since April, the group has spent 20 hours a week planning the bench. They galvanized the steel, counted the screws and cut the wood themselves, Johnston said. According to Ochoa, the the bench cost more than \$1,000 in total.

The students also built desks on the bench, inspired by previous models around campus, Budidharma said. The desks will allow students to work off their laptops outside the library, under an overhang that provides shade.

The students decided to tier the bench advancing vertically to the right as a design choice to make it adapt to the environment.



Our “Biblio Bench” project, by Sergio _____, Jackie _____, and Lucas _____, was designed and prefabricated in Spring Quarter 2018, approved for a building permit in early October 2018, and installed on the site in front of Kennedy Library by Halloween. It has been well used and because of its design, durable construction and materials, its perfectly suitable location and its message, it has become a valued amenity in that area.

Completed Bench Projects...

These Bench Projects Provide Great Education AND Are Durable Useful Artifacts That Improve Our Lives at Virtually No Cost to the CAED.

We have established an excellent track record of high quality design, materials, construction, and maintenance of the “bench” projects we have installed. These projects provide excellent “learn by doing” opportunities for Architecture students. They are “real,” requiring careful site analysis, budgeting, analysis and acquisition of materials, learning fabrication methods, and construction experience installing them. They contribute very little to the waste stream and remain as durable artifacts that become undeniably useful amenities for the areas they are installed.





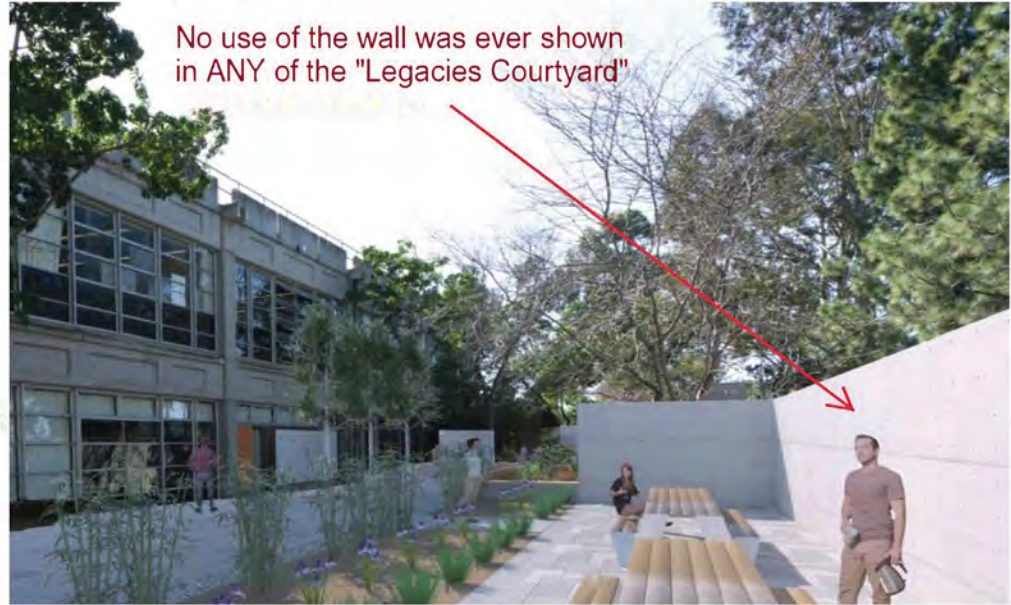
The Biblio Bench in use



legacies courtyard: These were proposed "before / after" renderings of the "Legacies Courtyard"



Before



No use of the wall was ever shown in ANY of the "Legacies Courtyard"

Proposed after the landscape "makeover"

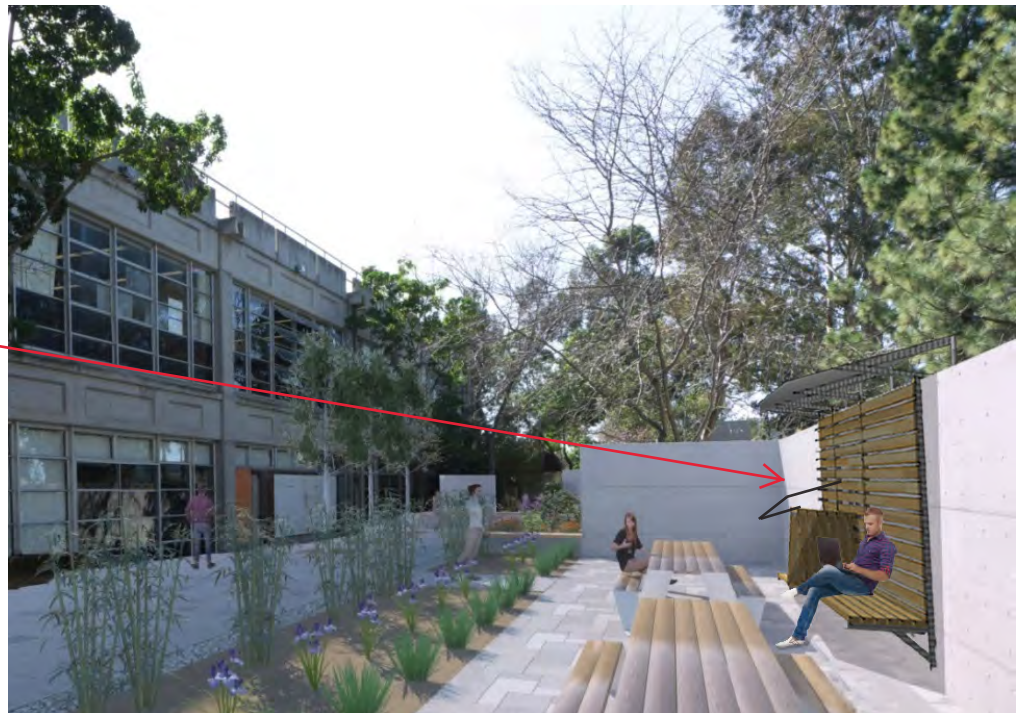
The "Solar Bench" Proposal:

The "Legacies" courtyard on the north side of a 4-story building was to get a landscape "makeover." The courtyard has an **existing eight foot high concrete wall on its north side which** we noticed **receives sun year-round** and that there was no proposed use for this wall.

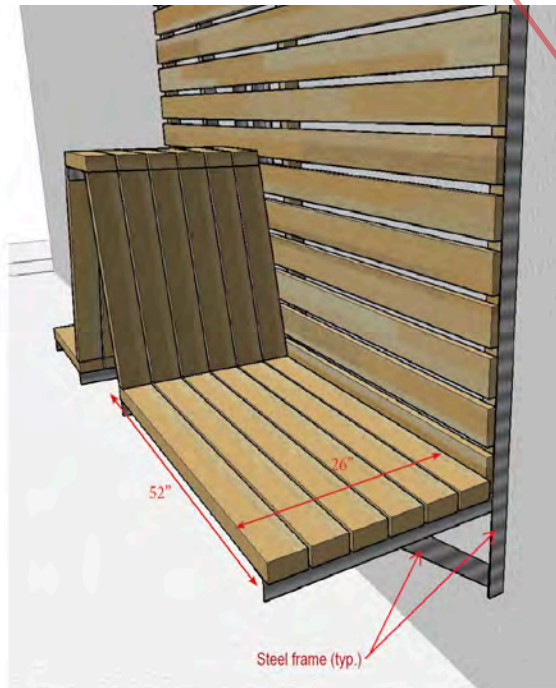
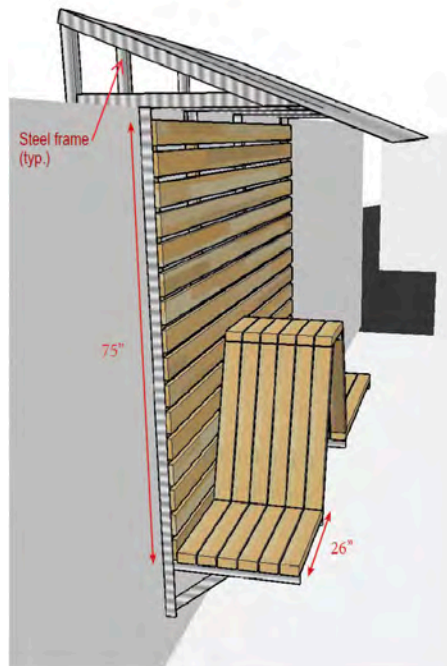
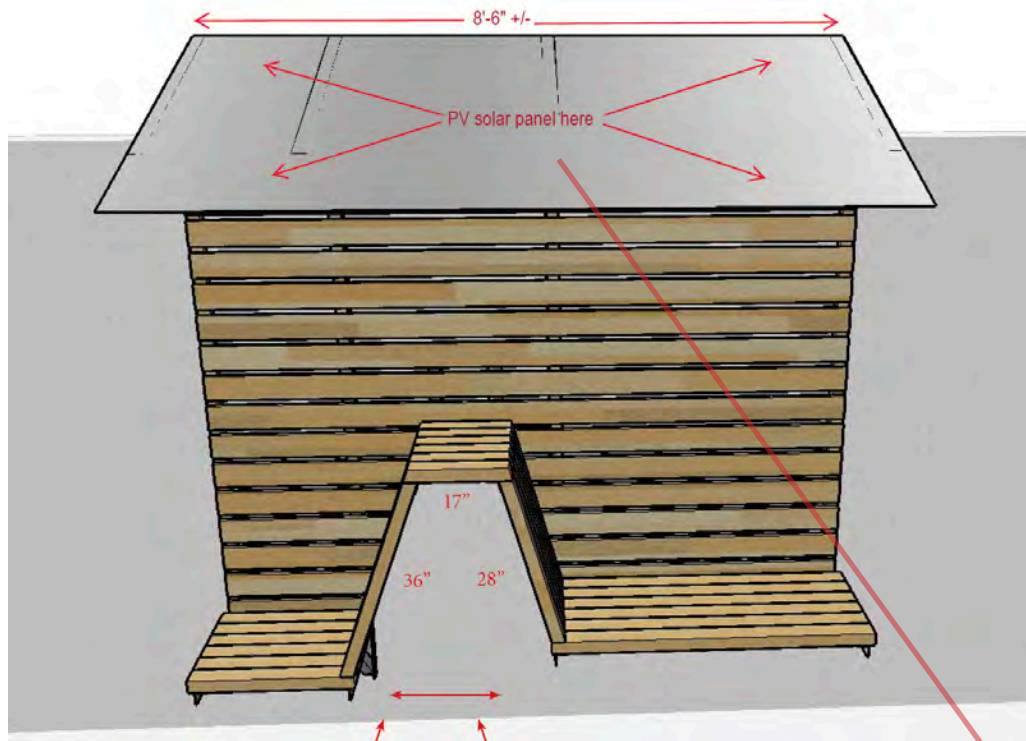
We see such walls as opportunities which have not been recognized.

We designed and are installing a hanging bench on the north wall that includes a photo-voltaic panel above, both to provide shade and to generate electricity for charging digital devices and to power some lighting 12 months a year - from the sun!.

This design will provide a comfortable place to sit in the shade, or in the sun (depending on the season) and preserve space in the courtyard for other uses. This design will "engage" the courtyard with the existing wall AND the sun.



Addition of the "Solar Bench" turns an unused wall into a multi-use asset.



This excellent prototypical "learn by doing" project is nearly complete due to the committment and energy of a wonderful interdisciplinary team of students and faculty.



Students designed and built the solar bench as well as the PV sytem.



Sunpower e20 435w solar panel



Renology Rover Li 20 Amp MPPT
Solar Charge Controller



SB12 12V 12AH
Lithium Ion Battery



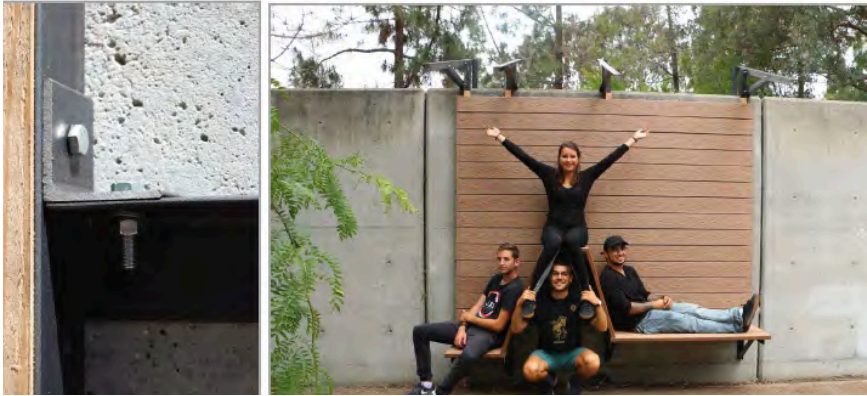
Pair of 10Ft. Renogy 10AWG Adaptor Kit
Solar Cable Wire PV
with MC4 Female & Male Connectors -
Connect Solar Panel and Charge Controller



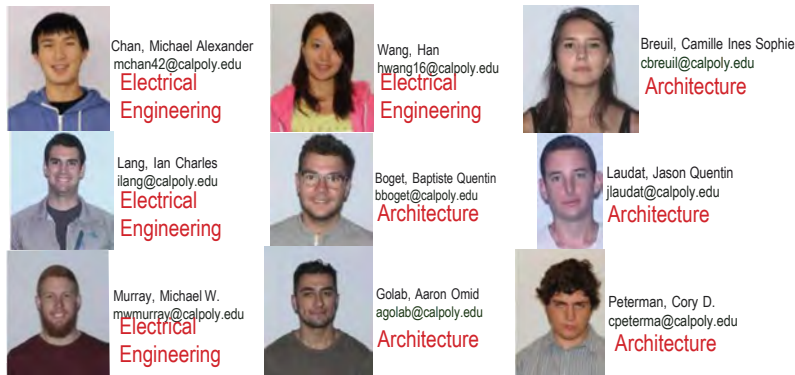
Hard Wire Power Cord Cable Car Charger
Dual USB Female Plug DC 12V to SV 3A 1 SW
Power Inverter Regulator Converter Kit



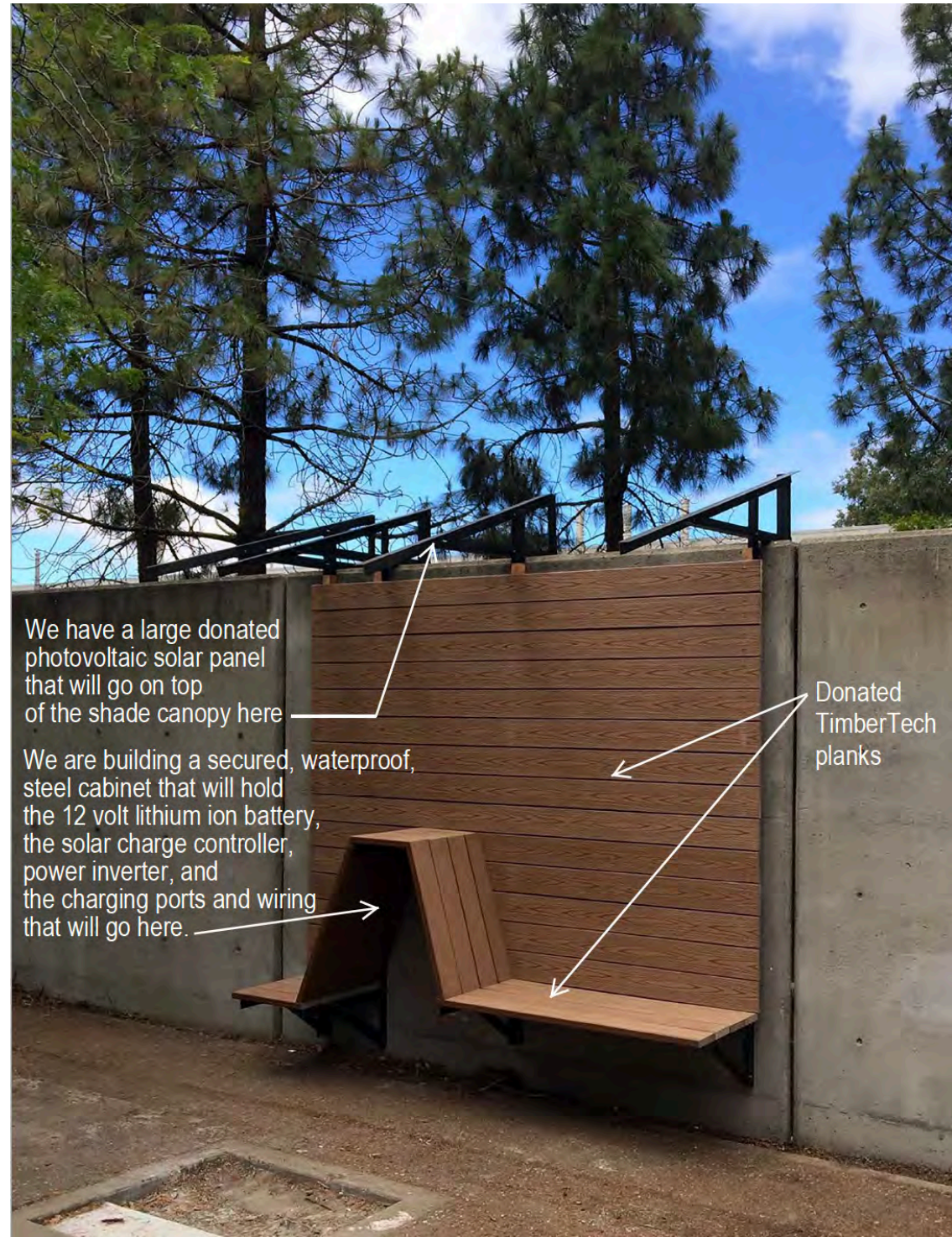
150W Car Power Inverter DC 12V to 110V AC
Converter with 3.1A Dual USB Charger



Four faculty from two colleges have been involved in this project so far



Nine Students from three colleges have been involved in this project so far





The bench structure with its cladding was completed in June 2017. But completion of the entire solar bench project was interrupted by the “Legacies Courtyard” project demolition and construction for a year and a half. We would like to complete it now.

There was some concern expressed that the bench projects would be in the way of the construction. But because the bench projects hang on the wall, they have not been in the way of the construction work at all.

The contractors found the bench(es) we had installed in the area to be assets to their work. They used them to keep tools out of the dirt, to eat lunch on, and even for the occasional nap - proving the usefulness of the concept.

And the benches are not in the way of the current uses of the courtyard either. In fact they make use of the walls which would otherwise be only walls...



“I wanted to shout!

For standing on the top of a scaffold in front of a good new wall always goes to my head. It is a sensation something between that of an angel let out of his cage into a new sky and a drunkard turned loose in a royal cellar.”

- Gulley Jimson (mural painter) in The Horses Mouth by Joyce Carey

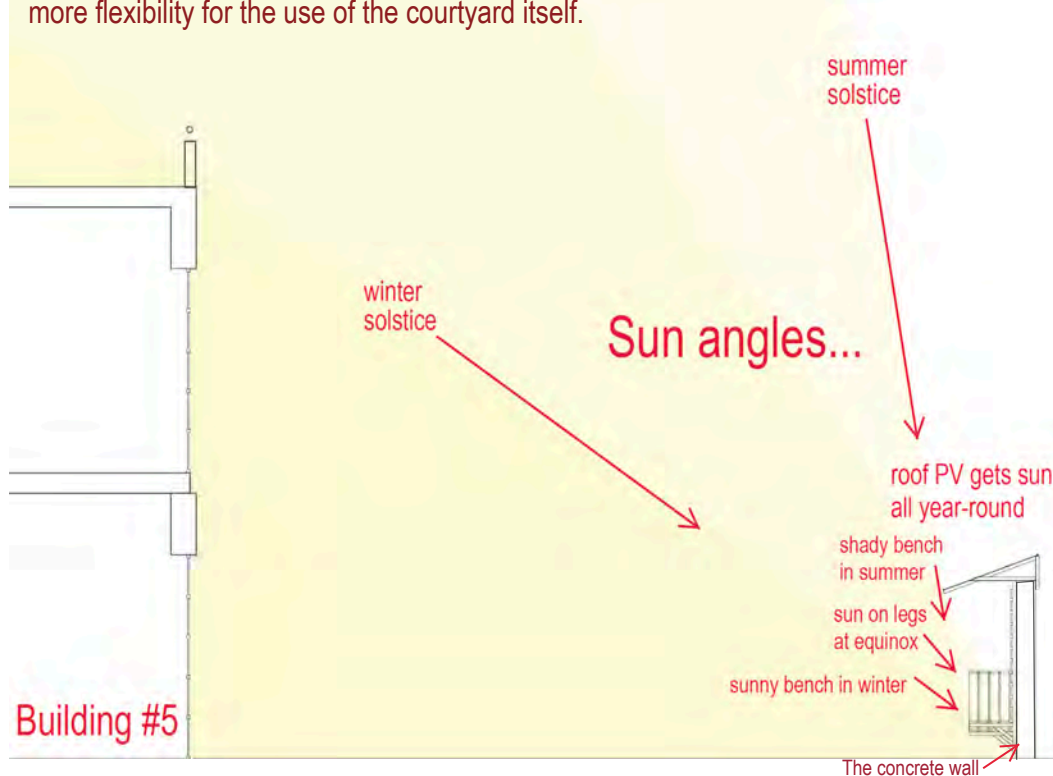
We added a solar bench to make excellent use of a wall's sun exposure year 'round...

The original design for the "Legacies Courtyard" makeover did not indicate any use of the walls whatsoever - and apparently did not consider the major impact that the sun has in the Spring, Summer and Fall, or that the shadow of the adjacent building has in the Winter on the thermal comfort of the space.

Our proposal for hanging solar bench works with the wall and its exposure to the sun to create comfortable places to sit, provide power for lighting and recharging digital devices, and leaves more flexibility for the use of the courtyard itself.



Nearly Winter solstice on December 20, 2018 - and the top of the wall where the PV panel will be, - is still in full sun at 2:30pm.



Nearly Winter solstice on December 20, 2018 - and the top of the wall where the PV panel will be, - in full sun at 1:30pm.

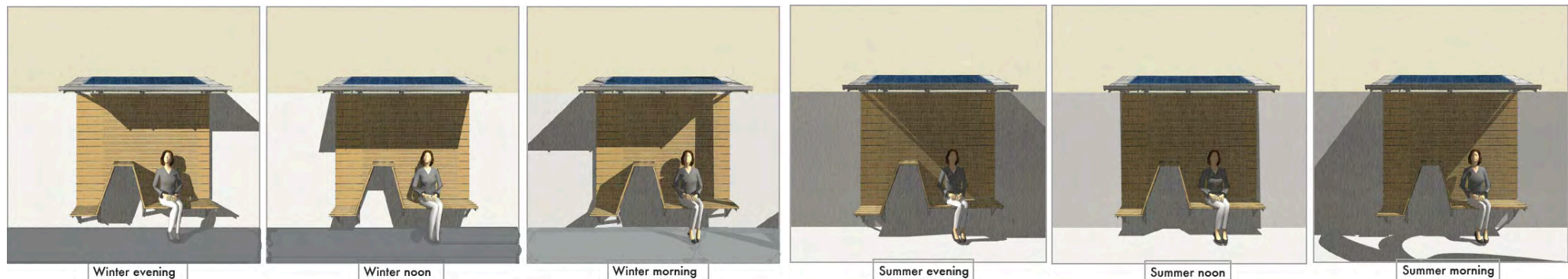


On a chilly January 18, 2019 at 1:15pm, the “Legacies Courtyard is in the shade, but the north wall is in full sun and provides a pleasantly comfortable place to study. (The proposed benches in the “Legacies Courtyard” plans would be in the shade.)



This photo taken in early May shows how the solar panel awning will provide welcome shade for the bench in the warmer months.

“One can see a whole lot just by looking.” - Yogi Bera



The solar panel awning will allow sun in the winter months and provide shade in the warmer months while always remaining in the sun itself to provide power - as our simple but clear and accurate drawings illustrate.

Solar Bench Design

Prepared by students in Electrical Engineering Professor David Braun's EE.413 class.
The students also set up, tested the equipment, and confirmed its functionality.

TABLE 1: Solar Bench Requirements and Specifications

Marketing Requirements	Engineering Specifications	Justification
2	The charging system will have a front panel.	The system requires a designated location to place output ports.
3	The front panel will have at least 2 three-prong outlets.	The customer desired laptop charging capabilities and laptops usually require three-prong outlets to charge.
3	Each three-prong outlet will output at least 70W at 120VAC.	70W is the average power output required for most laptops to charge.
3	The front panel will have at least 4 USB charging ports.	The customer desired 3-5 USB charging ports.
3	Each USB port will output at least 5V, 900mA.	5V at 900mA is the basic output of a USB port that is capable of charging modern smartphones.
3	The USB ports will be type A.	USB Type A charging ports are the most prevalent charging ports available on the market.
3	The interface of the solar panel supports peak power of 435 W, 72.9 V mp, and 5.97 Imp.	The solar panel provided provides 435 W, 72.9 V mp, and 5.97 Imp.
1	The interface of the solar panel can handle the open circuit voltage of 85.6 V and short circuit current of 6.43 A.	The solar panel provides this engineering specification.
3	The system can store at least 100 Wh.	100 Whs will keep they price down as well as provide a storage battery.
4	The electronic charging system will be contained in a weather resistant box.	The weather resistant box can resist weather conditions that might cause damage to the system.
5	The box's door will have a padlock.	The padlock provides more security to the system, which leads to higher resistant to theft.
1, 4	All wires must be insulated and all connection must be in the water resistant box.	Provides safety for the system and users.
1	Our system follows the NEC 690 certification.	By following certification, it assures user safety and correct operation.
Marketing Requirements 1. Safe 2. Intuitive to use 3. Charge electronics 4. Weather resistant 5. Resistant to theft		

The "TwiniwT" Bench makes use of two areas adjacent to stairs built in 2005 that remained uncompleted and abandoned since. They are "TwiniwT" because the spaces form kind of a palindrome.

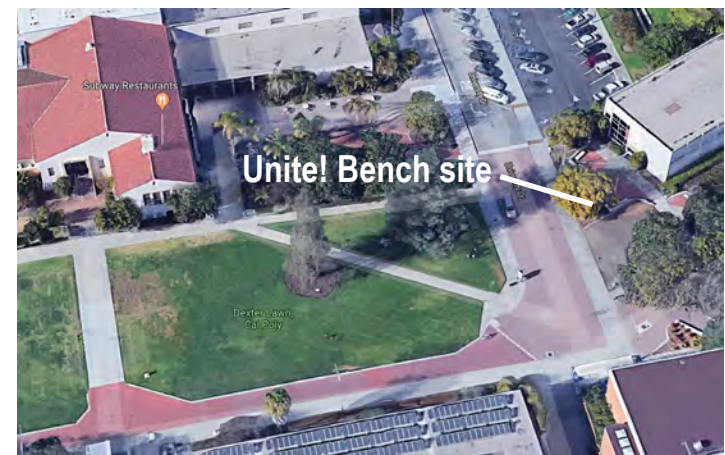


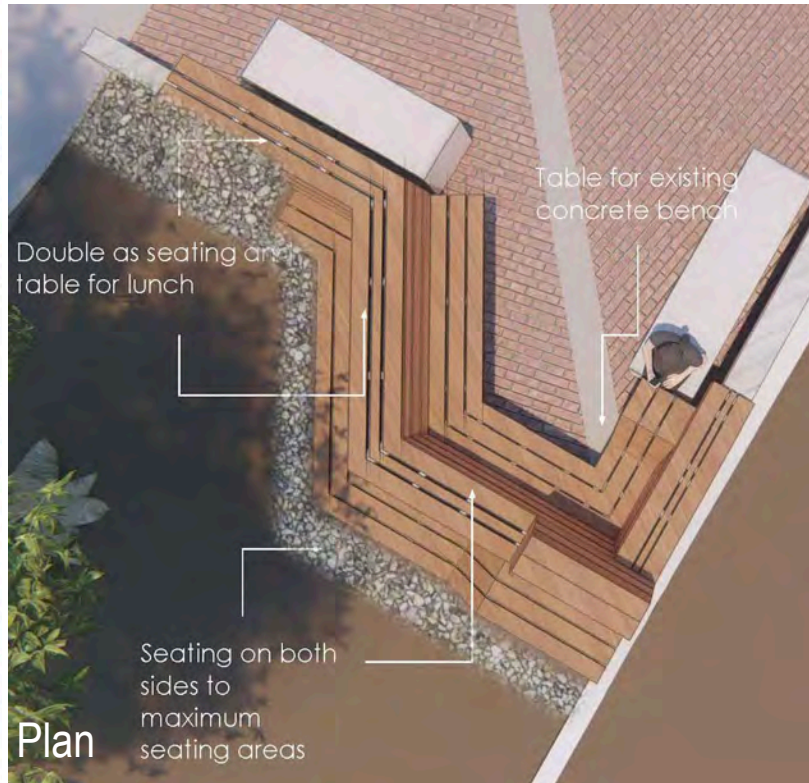
"TwiniwT" reverse twin benches being built to infill left-over space adjacent to recently built stair from Engineering West Building to Dexter Lawn



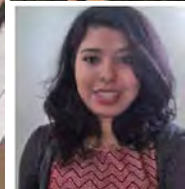
Unite! Bench Project is underway...

The **Unite! Bench** has been pre-fabricated and received a building permit. With reference to its design "saddling" the concrete wall, it will include a metal plaque inscribed with the phrase: **"Inequity is Instability"**, which also refers to consciousness in use of materials and also diversity, equity, and inclusion. The cladding is CaliBamboo.

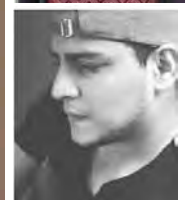




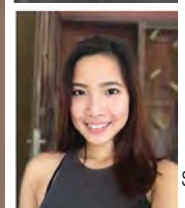
Karla _____



Maria _____



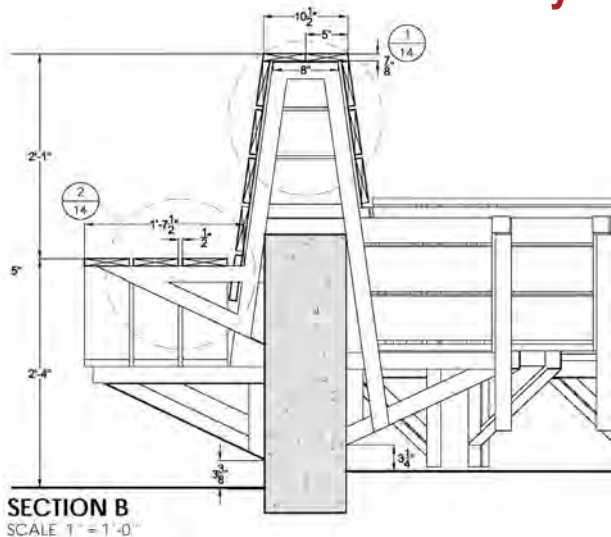
Karim _____



Sarah _____

Projects like these ask students to learn skills of making and result in “real,” durable, public design interventions for which they take responsibility. This is a tremendously empowering experience.

Unite! Bench Project is underway...



Other Completed Bench Projects...

Shou Sugi Ban Bench Spring 2018: by **Ander** _____ simply added a wood seating surface, back rest, and recliner to an existing concrete bench outside of an Engineering building. The wood is supported by a steel frame ingeniously wrapped around the concrete slab, and treated for weather resistance by charring it with a torch, a Japanese technique of wood preservation called “Shou Sugi Ban.”



Two Palms Bench Spring 2018 by **Noemié** _____, **Riwane** _____, **Michael** _____, and **Hannah** _____ takes advantage of two concrete planter boxes at the base of two palm trees to turn a thoughtless space into a multi-purpose social interaction space. Cladding is Cali-Bamboo..





CaliBamboo clad "Two Palms" bench with Architecture students



CaliBamboo clad "Two Palms" bench with parasol

Dali Wall
Work
Bench
Project is
underway...



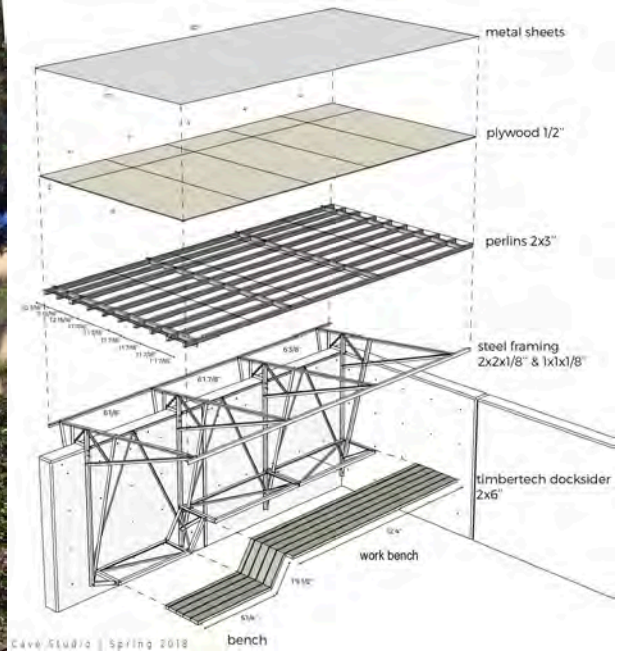
Design rendering of the Dali Wall Work Bench suggests the benefits of the shade it will provide.

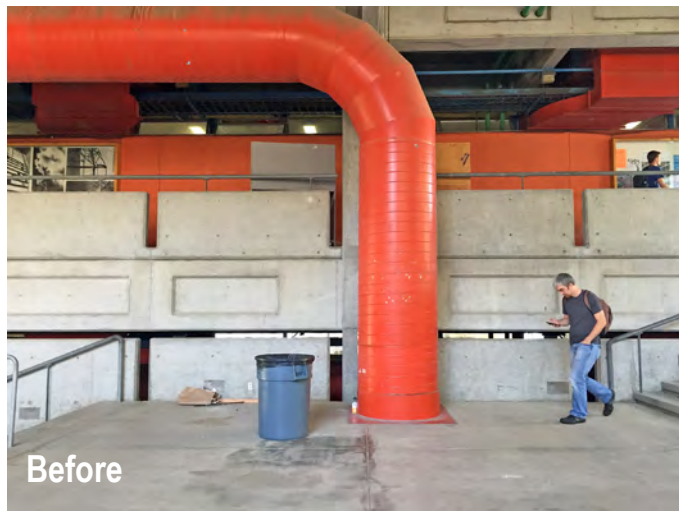
Dali Wall Work Bench + Awning: As part of the Legacies Courtyard project, the old shed in the north east corner of the area was demolished (even though plans indicated it was to remain). This created an area which was mostly unusable from April - October due to it becoming oven-like from its SW sun exposure. To remedy this we have partially completed what we call the “Dali Wall Work Bench” which will provide a designated place to work outdoors protected from the extreme sun and rain. We have installed solar lights for nighttime lighting. Our next step is to complete the project’s roof, gutter and downspout.

We consulted **Emeritus ARCE Professor Jake** _____, who worked on the original engineering of the building, and who confirmed that the reinforcing steel shown on the plans was in fact installed and that the wall could support the project as designed. We consulted **ARCE Professor Ed** _____ on the design of the scissor-trusses which we prefabricated, hot-dip galvanized, and connected using high strength bolts. The bench surface is Azek “Timber Tech” composite which was donated by the company to this project.



Work Bench Project is underway...





Before

Prior Completed Bench Projects:

A **Stair Court** has great potential but for many reasons is also a design that is difficult to provide needed improvements for. Our efforts have demonstrated 3 experiments.

The “**Stair Chair**” attempts to improve the usability of the stairs as bleachers. It is fabricated to be durable, heavy, and fit precisely and only in the stair court stair profile. It can and has been moved around by users for two years.

The “**Orange Duct Bench**” replaces a bulletin board that wrapped the orange duct for years and provides seating and small tables and as a setting designed to support ceremonial functions held in the Stair Court.

It also provides a safety screen for a very dangerous gap condition (to toddlers) that existed behind the orange duct.



Orange Duct Bench

Arena Column Bench

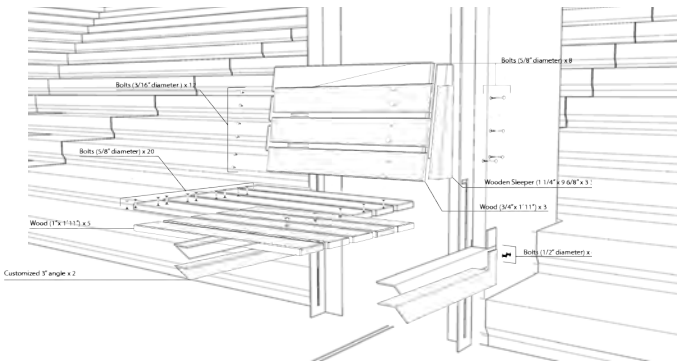
Stair Chair

ARENA COLUMN

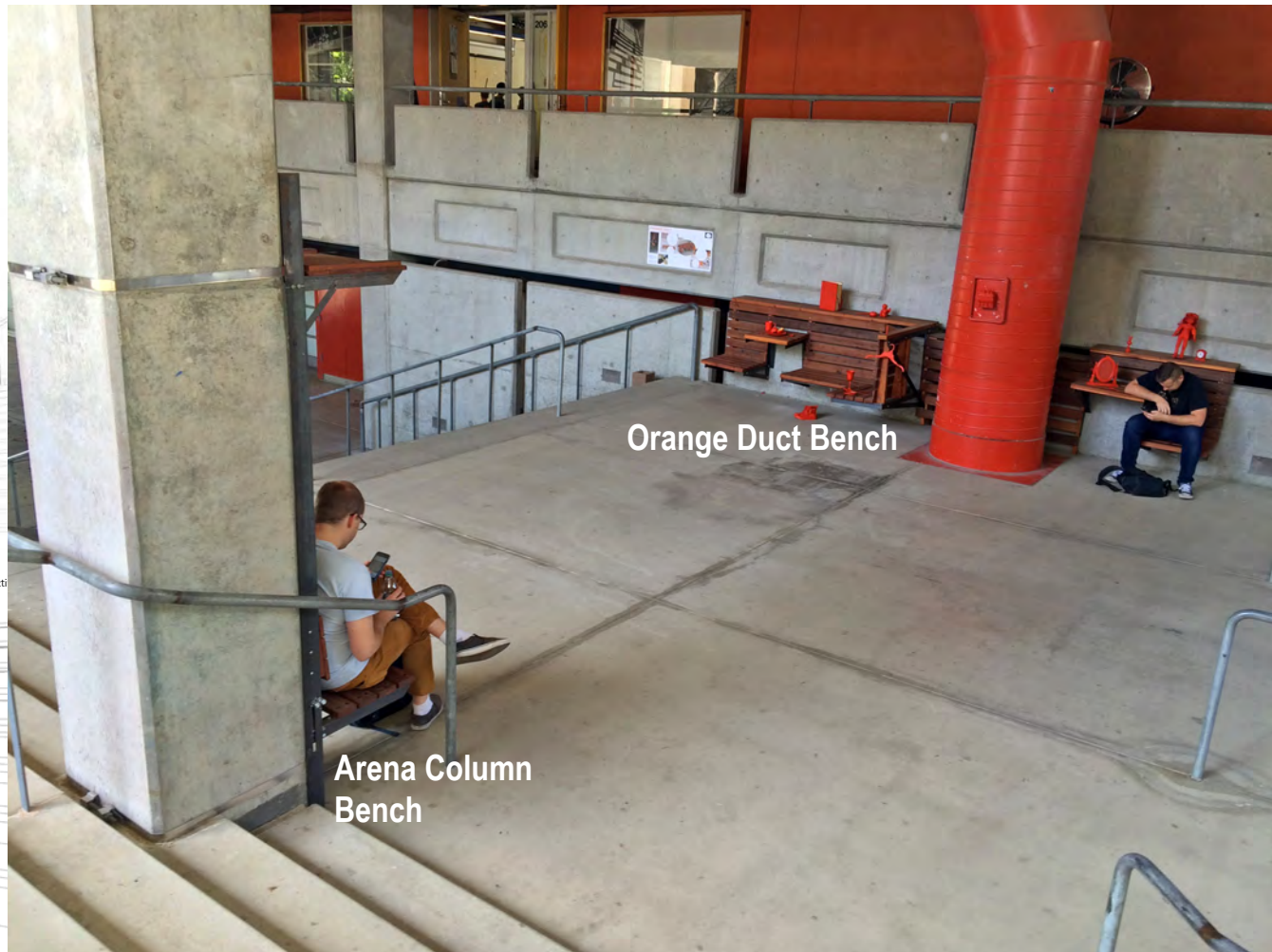
People like to sit - where there are places to sit!



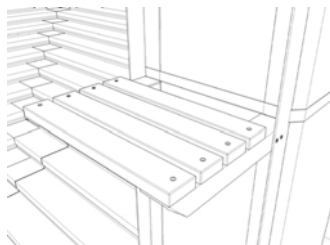
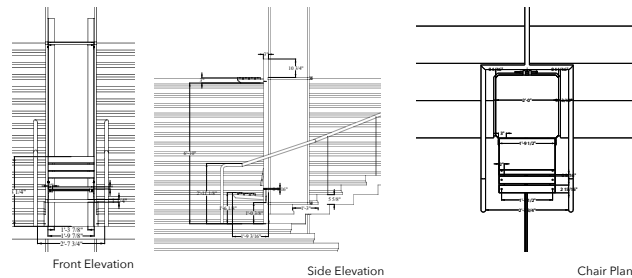
Perspective



Exploded Axonometric



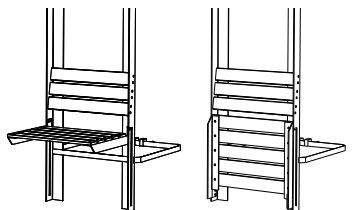
Proposed Projector and Usage



Shelf Perspective



Brought to you by:
Cave Studio Productions



Folding Mechanism

With Special Thanks To:



for their donation of the
BOLT-A-BAND

and
for his generous donations
of time and materials.

The “**Arena Column Bench**” came about from noticing that its space, the result of handrail extensions, was out of the way, protected, and not used.

The original plans for the building actually refer to this column as the “Arena Column.” We thought that a convertible seat with a projection platform above could be useful for mounting a projector on for film shows or presentations in the stair court.

It is strapped to the Arena Column using two industrial grade stainless steel strap mechanisms normally used in infrastructure applications such as strapping electrical transformers to utility poles. The manufacturer donated them to our project.

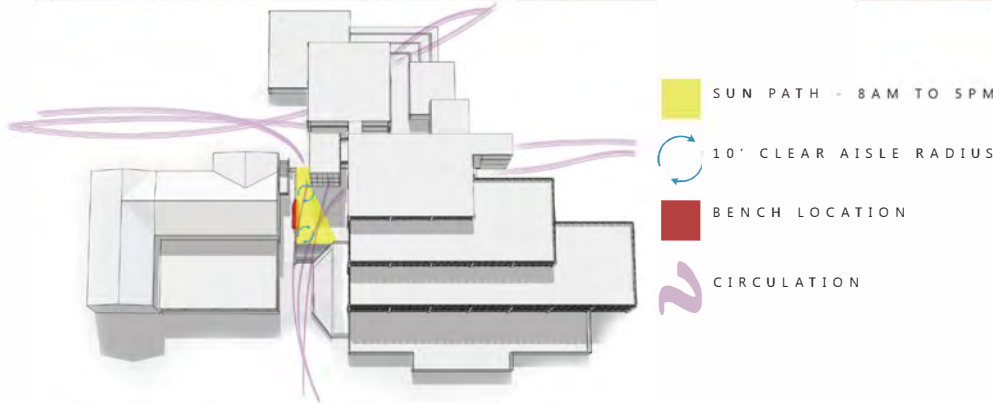
Prior Completed Bench Projects...

"First life, then spaces, then buildings – the other way around never works." Jan Gehl

2015: Travis _____: "The Lost In-Between: Research on life between buildings, design and installation of improvements."

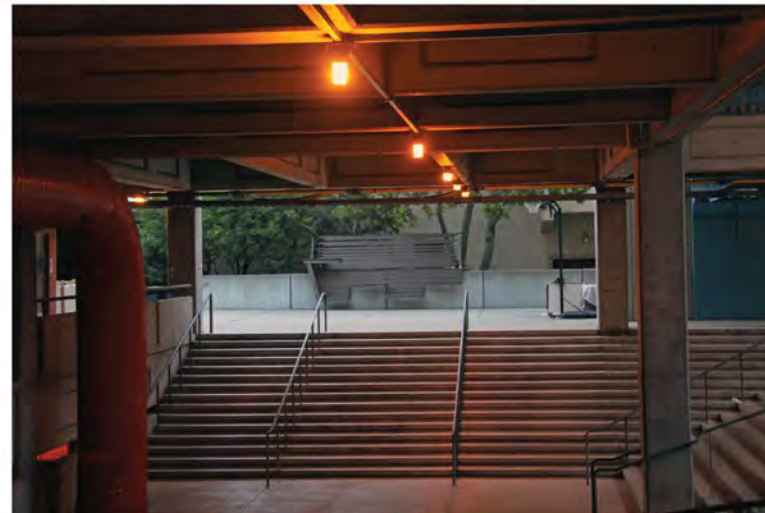
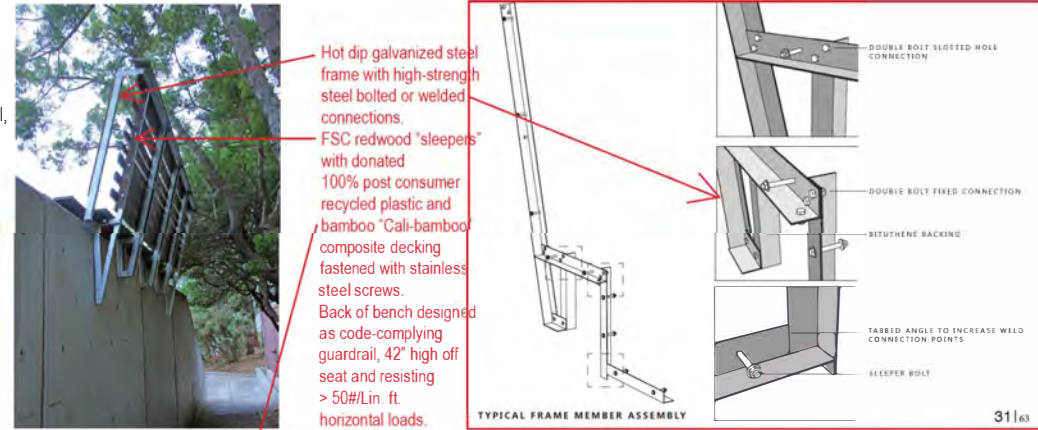
The university's history of placing buildings with less regard for the space between has left opportunities for improvement and to do meaningful work at full scale while still in school. Close and careful observation and documentation of selected areas over 6 months suggested potentially valuable interventions.

We observed that students use this space along a major north-south pedestrian route adjacent to the Architecture Building for basket-ball, design reviews, etc. We also noted how students habitually sit on the same stretch of a concrete wall with a dangerous 10' drop-off behind. We decided a carefully designed bench in this location could (1) provide a comfortable place to sit and socialize, (2) facilitate outdoor meetings and design reviews for a studio size group, and (3) improve safety by providing a guardrail on top of the existing concrete wall.



Guard-rail Bench (2015)

Also see: <https://www.calibamboo.com/blog/cal-poly-architecture-student-wins-award-with-bamboo-design/>



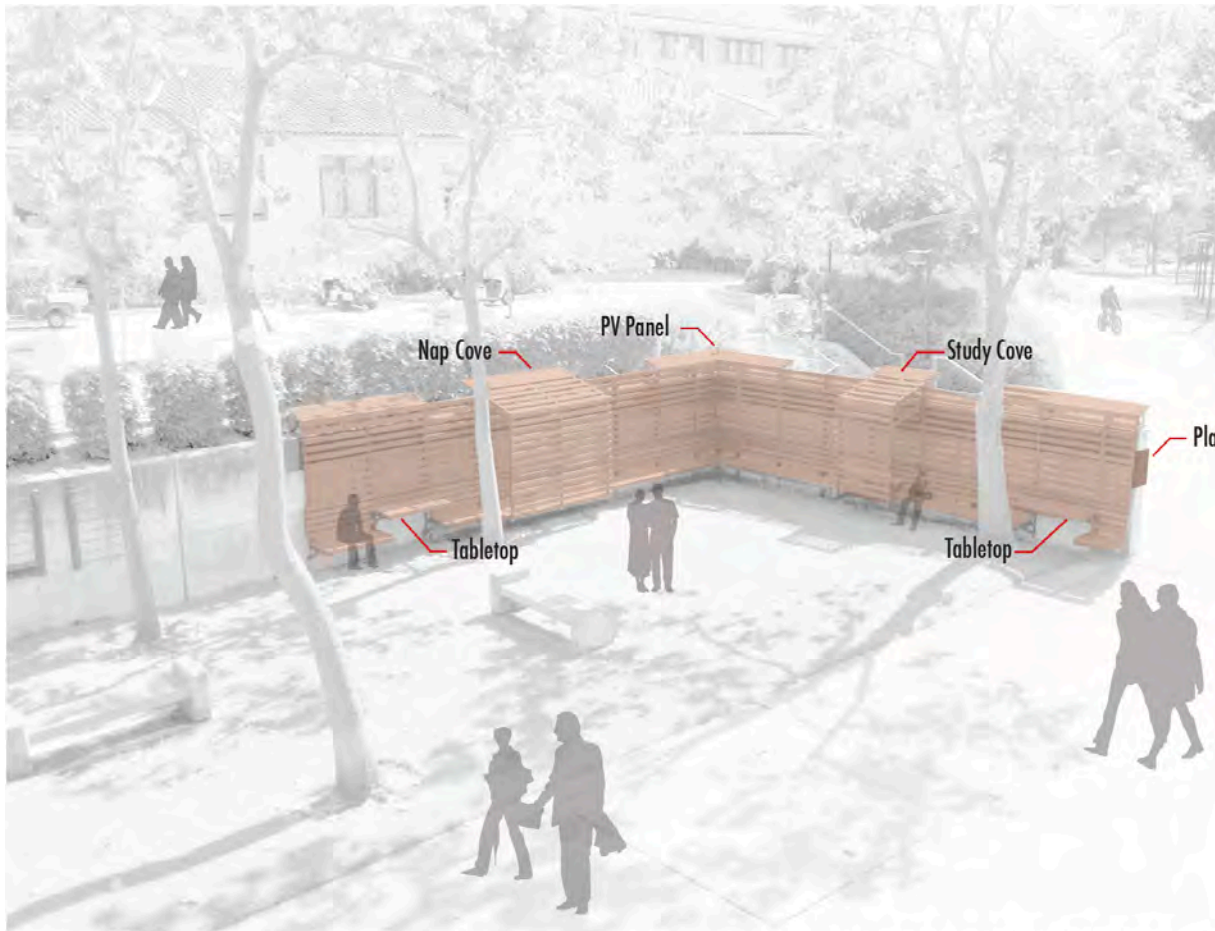
Recent years have witnessed attention by mostly younger designers in the creation of "guerilla" street furniture, pocket parks, and "parklets" in attempts to improve the urbanity and livability of spaces around and between buildings.

This kind of small scale but full-size work is valuable for the lessons that can be learned about urban design in general. Because the work is not simulated, but instead "real," the feedback is actual about such concerns as material, budget, code, etc. and actual results can be observed. This bench immediately became beloved and well-used by the community - but rather than working to address any concerns, the institution summarily removed it.

*"The sense of place
is not within the grasp of the architect alone...
It is not the designer who creates the sense of place.
It is the user or observer.
The designer merely sets out opportunities for others to use
- to make distinctions, to perceive connections,
and to take advantage (or not)
of the structure of thought that is there."*

Donlyn Lyndon,
"Caring About Places,"
Places: A Quarterly Journal of Environmental Design
(Vol. 2, No. 1, 1987)





HANGING Bench

The project is a bench but also a lot more than a bench. It was designed to catalyze social interaction in the area and provide for sitting, relaxing, socializing, studying, eating, napping, space for seminars and small class meetings, and pin-up space for presenting students' architectural design projects. Accordingly the bench form morphs to accommodate the various uses, providing seating for a variety of postures, tables for eating and studying, semi-enclosed "coves" for studying and napping, and a vertical pin-up surface. The study cove is adequately lit

at night by photo-voltaic powered, photo-cell switched LED lights.

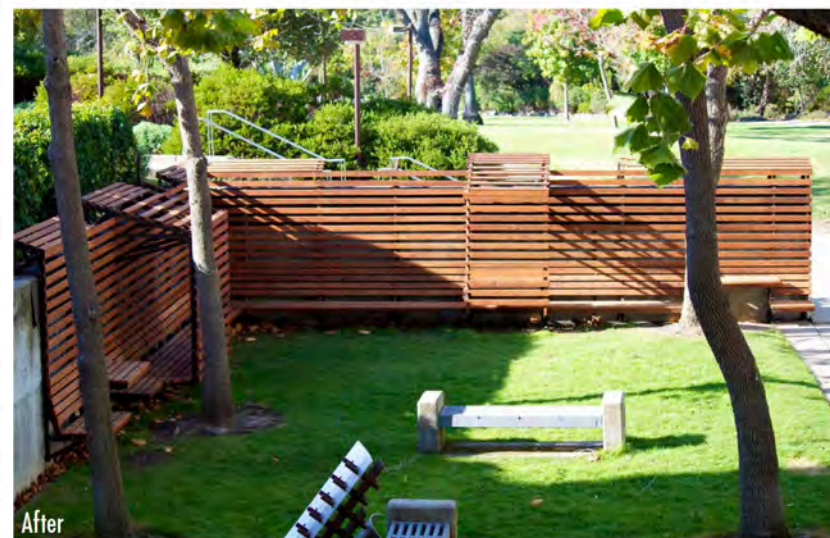
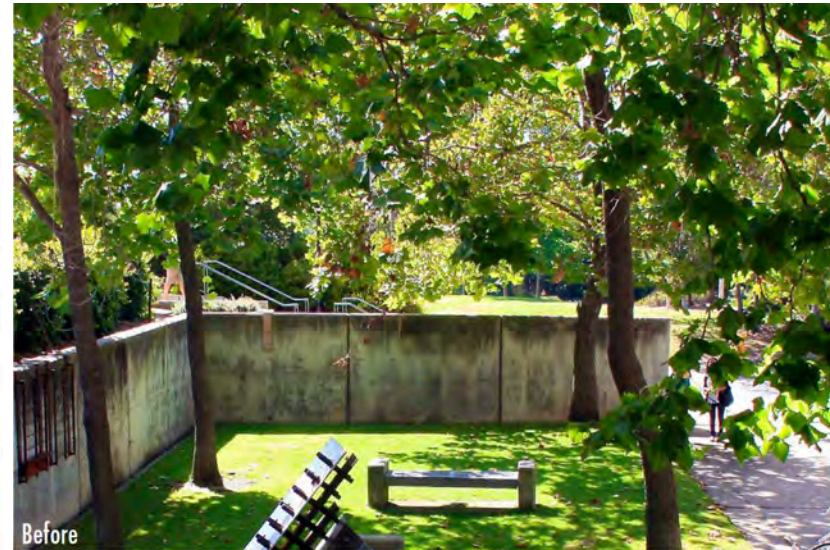
The project was designed to be a hybrid of modular pre-fab and site finished construction that would not be attached to, but hung over the concrete wall. The steel and wood hanging bracket frames and most of the Redwood pieces were pre-cut and assembled in our shop entirely by students. The students purchased the steel and the professor purchased the hardware. There were many hours of hard work.

Big Creek Lumber Co. of Davenport, CA donated the

Redwood, procured from Cal Poly's nearby Swanton Pacific Ranch, a major living learning laboratory asset of the university which includes an FSC certified Redwood forest. Students visited the forest and the lumber mill.

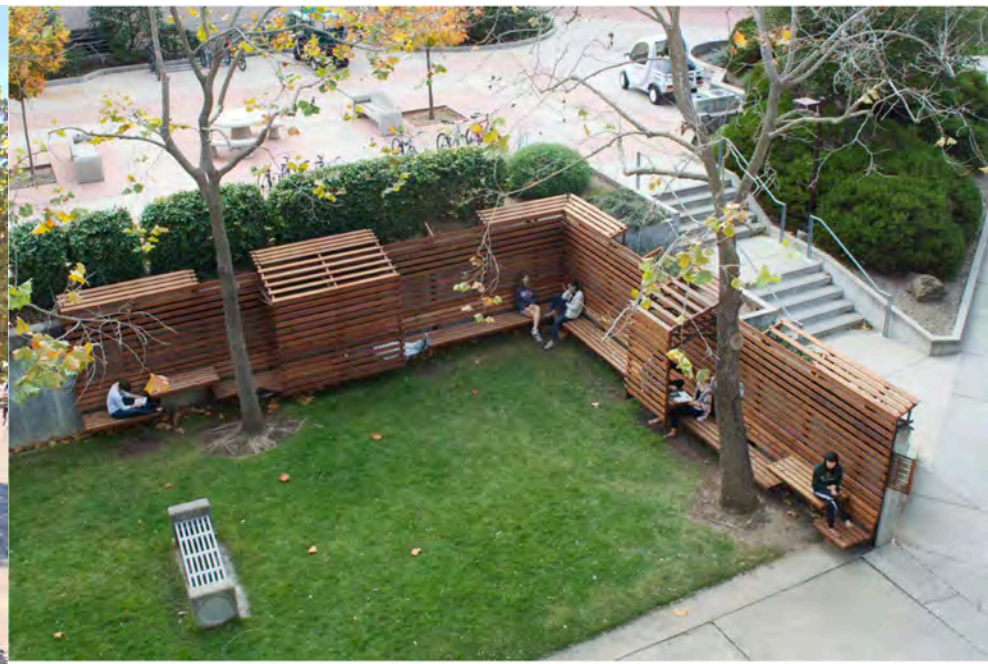
The design is original, unique, imaginative and successful. It is a useful prototype for the many similar dreary concrete walls elsewhere.

But it is the beautiful warmth and resilience of the Redwood which makes the project both comfortable, useful and beloved by all.



Studio Consilio Bench (2012)

8 years installed, well-maintained, well respected, has suffered no graffiti or vandalism. Projects like these, arising out of participation, that respect day to day users by enhancing livability and sociability also build a sense of shared stewardship.



"Hanging Beach" Receives 2012 Special Design Award



"Studio Consilio's" Hanging Bench
received a 2012 Special Design Award
in the American Wood Product Council's Woodworks for
Non-Residential Construction design award program.





Spring 2019



Three "Floating Deck" benches being built for in front of the Architecture Building
(This is a high-profile location, currently an abandoned dirt area, adjacent to a major pedestrian walkway.)



The "Resist Bench"

was our first use of the CaliBamboo material, and as a material test, it has been located in an area where it gets the most rain & sun since 2017 and seems to be resistant to weathering.