FOCUS

17

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College of Architecture and Environmental Design

California Polytechnic State University San Luis Obispo

FOCUS 17

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College of Architecture and Environmental Design
California Polytechnic State University San Luis Obispo

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A Note from the Department Head

I am proud to introduce this year's edition of FOCUS. At Cal Poly our primary mission is education and we see the journal as an important vehicle for sharing with a broader audience our professional values, what we teach, and what we do. We encourage you to consider writing an article or to share your professional story for the next issue.

In the Fall of 2019, we began another academic year with a great group of students, and enthusiastic faculty, and a full slate of activities and studios—then COVID-19 happened. I know many of you have struggled to cope with the new reality and Cal Poly was no exception. In Spring Quarter we had to make a last-minute, rapid shift to online teaching. Our biggest challenge was how to run our community-based urban design studios since we had to do everything virtually and could not physically visit our communities and sites. Our second biggest challenge was providing students with access to some of the more advanced software we use such as ArcGIS and AutoCAD since we could not use our computer lab. Our faculty, staff, and students rose to the occasion and we persevered. It wasn't perfect or ideal but I think we were able to deliver a positive learning experience and do the kind of creative, quality work for our client communities that Cal Poly is known for.

For Fall 2020, Cal Poly allowed for some labs and studios to return to face-to-face instruction, but most classes (about 85%) were taught virtually. This Fall I have spent more time talking to students than perhaps any quarter I have been at Cal Poly. Our students are amazing and resilient. None of them signed up for this but most of them have done well and maintained good spirits. As future planners, they understand what is going on and the social responsibility to minimize the spread of the virus. They also understand that professional planners have themselves had to make many of the same pivots: on-line meetings, virtual public participation, creative solutions, etc. Thus, they are learning-by-doing when it comes to how to be a professional planner during a pandemic.

Despite the distraction of COVID-19, we are undertaking an important endeavor to enhance diversity, equity, and inclusivity (DEI) in our curriculum. In CRP we have always seen ourselves as leaders in this area. We resolutely believe in and support the AICP Code of Ethics and Professional Conduct and are seeking to advance the social justice part of the code which states: "We shall seek social justice by working to expand choice and opportunity for all persons, recognizing a special responsibility to plan for the needs of the disadvantaged and to promote racial and economic integration. We shall urge the alteration of policies, institutions, and decisions that oppose such needs." As such we are evaluating our curriculum, consulting with students and university partners, and developing a CRP DEI Action Plan that builds on plans we have developed in this area.

I'd like to share two ways you can help CRP whether you are an alum, colleague, or just a friend of the program. First, we are in the midst of a campaign to raise $75,000 to support the CRP Cal Poly Scholars Program. This program provides a scholarship and support services to first-generation students (i.e., first in their family to go to college). In CRP we believe that everyone who wants to be a planner should not be held back because of their financial situation. Cal Poly is matching donations one-to-one, thus doubling your impact. You can donate at the following link by choosing CRP Cal Poly Scholars for your gift: *https://planning.calpoly.edu/support-city-regional-planning*

Second, we want to increase enrollment in our undergraduate and graduate programs and increase the diversity of students. We ask you to spread the word to young people about careers in planning. Consider giving a (virtual) talk at your local high school, community college, or university about the importance of planning for society and the impact they can have on creating great communities for everyone.

Finally, I want to acknowledge and mourn the loss of Dr. William "Bill" Howard, CRP professor emeritus and former Department Head. You can read more about his life and legacy in this edition of FOCUS. We send our love and support to his wife, Professor Zeljka Howard, and his family.

Michael R. Boswell, Ph.D., AICP
Department Head & Professor,
City & Regional Planning.

Editor's Overview

This has not been an easy year for anyone, with tensions coming from all sides: dooming disasters due to climate change, an increasing immigration crisis, political radicalism and social unrest, the fight for justice and equality, tense presidential elections and, making things worse, the COVID-19 pandemic and one of the worst health crisis this country has experienced. Almost overnight, academia was hit by the need to move to an online mode, and we can only speculate on the full consequences from such a move for students' learning and for education as a whole.

Although these contidions made planning for FOCUS more complicated, the journal's momentum allowed us to keep moving, and we were blessed with great contributions. However, instead of a color, for this issue we adopted gray as a way to mourn the 300,000-plus Americans and 1,7 million people worldwide so far who lost their lives to coronavirus.

The CRP community is also grieving the loss of our dear colleague William "Bill" Howard. Bill was department head from 1980 to 1989 and retired as professor emeritus in 1994. During his tenure, the department was granted its first professional accreditation and the number of students increased from 84 to 251. A dedicated, enthusiastic, and estimeed professor, he believed in educating students through real-world projects. In this issue, Bill is memorialized in a beautiful eulogy by his friend and CRP alumni Keith Gurnee.

This issue's **Special Events** section is dedicated to a series of four international talks promoted by CRP in the Spring. Inés Sánchez Madariaga, professor at the Universidad de Madrid, discussed gender equality in planning and design through her research and projects. Geoffrey Payne, an international consultant and lecturer at the University College London, discussed the current global crisis that is strongly affecting access to urban land and housing affordability. João Freire, a marketing professor in Lisbon, spoke about place marketing and destination branding through one of his professional projects. Kobus Mentz, one of Australasia's leading urban thinkers, discussed the future of sustainable urban design in a post-Covid 19 era.

The **Blind-Reviewed** section includes an article from the United States and another from Portugal. Meha Patel and Amir Hajrasouliha discuss how open spaces in university campuses impact student satisfaction and academic success through a behavior-based study of Cal Poly's campus. Carlos Smaniotto Costa, Joana Batista, and Marluci Menezes present us with a case study in Lisbon, centered on teenagers as potential co-creators of public spaces, as part of a larger research project under the auspices of the European Union.

The **Essays** section opens with two contributions from Carlos de Almeida. Firstly, through a series of beautiful sketches of city skylines, he reminds us of the importance of capturing and representing the essence of a place. Secondly, he presents an impressive project for a new transit station (subway and bus) in Scarborough, a suburb of Toronto, Canada. Next, Ivor Samuels discusses some of the implications of the new-urbanist design of Poundbury, a new town commissioned by Prince Charles in England. In this section's last essay, Kobus Mentz discusses the urban design charrette as a catalyst for investment, through one of his projects in Dunedin, New Zealand.

The **Faculty and Student Work** section opens with an article on the importance of outdoor learning environments and a series of design ideas for Cal Poly by Amir Hajrasouliha and Elizabeth Farin. Erick Valentine follows discussing the novel environmental concept of National Park Cities, and demonstrates how San Luis Obispo could become the first of its kind in the United States. Hemalata Dandekar and Vicente del Rio present the outcomes of their undergraduate and graduate studios, both taught online and dedicated to contributing the long-range planning efforts for the small rural community of San Martin in Santa Clara County. Vinson Kwan, Henry McKay, Trisha Tran, and Wesley Wong, student participants in one of those studios, reflect on their experience and make suggestions for future online studios.

In the **International Section** senior Peyton Ratto writes about her quarter-long stay in Florence, Italy where she studied art, culture, and Italian. The **Spotlight Section** includes essays by alumni Nicholle Narhi Wright (BSCRP, 2004) and Jaime Jaramillo (MCRP, 2015) on their professional trajectories, brief accounts on the studio projects, and a list and abstracts of master's theses and final projects from the 2019-2020 academic year.

To keep spirits high, **Cartoon Corners** appear throughout FOCUS, with original contributions by Simon Taylor, Tarcisio Bahia de Andrade, and myself. This issue also includes a classic 1886 political satire of the new Paris subway by Albert Robida.

Praying that 2021 will be healthier, safer, and more socially just for all, I hope you enjoy reading FOCUS 17. As always, I like to conclude by reminding you that our journal is always open to new articles, essays, and professional stories.

Vicente del Rio, Ph.D.
Professor Emeritus, City and Regional Planning
Founder and Managing Editor

How Deep is My State?

Chris Clark
J.D.; Lecturer, City and Regional Planning Department, Cal Poly.

Like it or not, fellow planners, you are a card-carrying member of the Deep State. And you should like it. You carry the institutional knowledge and stability that keeps government moving forward and afloat. And to further engage the metaphor, you are part of the keel that both directs the ship of state and keeps it from rolling over with every wave or disturbance on deck.

"Deep State" originally referred to the intelligence service of certain countries that used their secrecy as a disguise for unauthorized government control. It has since been bludgeoned into a very general notion about civil servants whose job lasts beyond an election cycle. This latter definition is not very useful other than for demonizing vast swaths of government employees.

Throughout a career, a planner will see many changes in leadership for the community they work in. This both creates opportunities and tensions. New leaders can bring ideas and inspiration. They can also thwart projects currently underway. What's a planner to do?

We work on two fronts, commonly referred to as 'current planning,' which is the granting and processing of land use permits (for the most part) and 'advance (or long-range) planning.'

Current planning doesn't change much. Demands of new leadership most often adjust the speed and complexity of processing permits. They need to be done more efficiently (faster), or with greater care (slower). But the substance of this work is resistant to change as it the product of many layers of regulations.

While most political leaders identify as democrats or republicans, that is not very relevant on the local level of politics. Generally, elected officials are either pro-development/business or pro-environment/social concerns. Construction may speed up, or slow down, depending on the election cycle. But the course of the city doesn't swerve much, given the rudder of the general plan. Consider a place you've known for your life, and how similar it feels today (unless you grew up in San Jose or Las Vegas).

Long-range planning can change. There is always the threat that a new majority on a council will stop large initiatives and start new ones. But most cities are administered by a city manager, as compared to a strong mayor. When new council members are ushered in, the city manager sits them down and gives them a talking to. "This is what we are doing, and this is why we are doing it. And these are the consequences (costs) of wholesale change." That's not to say city managers can't be replaced with someone more compliant. But it is uncommon at the local level to get new council members who have the wherewithal (knowledge of municipal operations and political acumen) to bring about a revolution.

However, this is not unprecedented. In Los Osos, a recall election seated an anti-sewer majority on the Community Services District board, and they stopped a wastewater treatment system that was permitted, financed, and under construction. For a community of 14,000 to halt a project that would eventually exceed $170 million is impressive and garnered national attention. In 35 years, I've not seen anything remotely close to that large and swift change, driven by political forces. It took an immense public engagement to pull that off. So unique was the effort that it resulted in a book by a local author; Small Town Perfect Storm, The Los Osos Sewer Saga, by Barbara Wolcott. A detailed look at that situation will show it is truly the exception that proves the rule proffered by former governor Jerry Brown; that the ship of state does not turn on a dime, but at most can be nudged in one direction or the other.

Not so for natural disasters. Demonically and undemocratically they advance upon us. Except for the COVID pandemic, natural disasters focus the thinking and energy of a community towards repair and rebuilding as a united front. Many people and organizations and government working together to bring things back to the way they were. And sometimes to improve upon what had been there before, especially if that reduces the chances of a recurrence. COVID is the exception because it encountered a divided public; one-half ready to follow science, the other half not. And it's much tougher to call wildfire a hoax.

Fire, floods, hurricanes, and earthquakes have destroyed much. In their wake come building code advances, zoning changes, and better technology resulting in safer, more resilient

construction. But of course, at an enormous cost. Lives and property are damaged or destroyed. And if ever there was a justification for a secure and deep state capable of repelling and responding to these threats from beneath the whims of politics, there you have it.

But day-to-day, we do not work in response to disaster. We carry on the "business" of managing the infrastructure that affords us access to a better city, a better life. This infrastructure – public safety, transportation, managed land use – is our responsibility. Irrespective of who sits behind the dais.

And what are the forces that resist change in a city? General Plans are resistant. They require professional planning work, a strong public involvement, integration with all its internal components, and adherence to state statutes. That is a formula for steadiness. It would be wrong-headed for anyone coming into office to make hasty and wholesale changes to the "constitution of land use," as the Supreme Court of California dubbed the general plan. Steady, consistent, long term, and established policy is the hallmark of a strong city. Rip through communities to build your highways or bulldoze neighborhoods for massive housing projects – and risk mistake.

I have sat through several thousand (not hyperbole) public hearings, and administrative meetings. The operation of a nefarious deep state would most likely be evident in the internal meetings of municipalities and other organizations. But I haven't seen it. I've seen arguments, heard snide comments made about leaders, and participated in the development of information campaigns designed to influence public thinking (Oh my!). But in all my years and all those meetings, I've never heard anything that would rise to the level of conspiracy. Was I not listening? I'm a lawyer, so I have an ear trained to spot that sort of thing. Was I ever close to where the real decisions are made? Not always, but I have been very close to the center of many big projects. An image suggested by many of "smoke filled rooms" has not been my experience. Most of the time I have been witness to people honestly engaging in difficult problems and spending their energies trying to find reasonable solutions. Have I heard bad ideas, selfish considerations, CYA, and poor judgment? Of course, I have, and many times coming out of my mouth. But nothing evil.

The recent scourge of allegations of election fraud raised some interesting considerations. I love conspiracy theories as much as the next guy. I love all sorts of fiction. But the argument against election fraud that dampened my excitement is this: it would take an enormous number of people to be in on the operation to pull it off, and they would all have to stay quiet. And as the number of underhanded players increase beyond one, the odds of maintaining secrecy diminish rapidly. Someone will spill the beans on a deep state action. This is a different kind of safety in numbers.

Do bad things happen? Yes. Can evil operate on a large scale? Yes, but only under the most awesome authoritarian rule.

We need a deep state in the sense we have come to know the term. We need people with long term institutional knowledge, who know the pitfalls and opportunities, and have the clarity of history to ascertain the productive path. We need expertise, both of technology and locality, to have security in knowing that we will have a better chance against the unpredictable future.

Preachy? Hell yes. When people rail against government, and civil servants, and municipal authority, you must be able to speak to them in measured tones about the government's purpose: the foundation and protection of society.

I have worked with many councils in many cities. I have agreed with and disagreed with many leaders. I have been happy to talk with anyone and explain what I do and make my case for how I do it. I have been shot down and corrected. And I have continued to learn and hopefully got better at what I do. And through all of this, I have been proud to say:

"I am the deep state."

• • •

William (Bill) A. Howard

A.I.C.P., CRP Department Head (1980-1989)
Emeritus Professor of City and Regional Planning (1980-1994)
1931-2020

Reflections on a Renaissance Man

On August 29, 2020, on a warm late Saturday afternoon, William (Bill) Howard, Cal Poly Professor Emeritus, peacefully passed away surrounded by friends and family at his home in San Luis Obispo.

Bill was a man of vision with a great sense of humor and a deep thirst for knowledge. He was a man of many experiences and accomplishments. He was a scholar and educator, a philosopher and a consummate joke teller, and a city planner and imparter of wisdom and witticisms that he shared with friends and students alike. Bill Howard was a true Renaissance Man and his was a life well lived.

His Early Years

Coming from humble beginnings, Bill was born in 1931 at the height of the Great Depression in the small town of Pink Hill, then a tiny village of 188 souls tucked into the lowland tobacco fields of eastern North Carolina. Affectionately called "Billy" by his folks and siblings who hoped he would help them farm their land, that wasn't to be. Spending hours steadily swaying in a porch swing voraciously reading book after book, he was an innately curious boy determined to leave the farm and make his own mark in the world. Upon graduating from Pink Hill High, Bill Joined the Air Force during the Korean War. After serving four years stateside in Washington DC, the G.I. Bill enabled him to pursue the ambitious educational goals that he had craved during his porch swing days.

His College Years

Bill started his college education at the University of Maryland and went on to graduate from the University of Denver with a bachelor's degree in History and Philosophy (1958) and a Master's degree in Geography (1960). He then went to Johns Hopkins University for advanced studies in regional economics, political science, and geography prior to receiving his PhD from the University of Edinburgh, Scotland in Geography and Urban Planning (1973). Bill liked to talk about his experiences in Edinburgh and how he met Sir Peter Hall who was his mentor and dissertation advisor.

Throughout the 1960s and1970s, Bill held positions as Professor of Urban and Regional Planning at the University of Denver, the University of Colorado, and Virginia Polytechnic Institute and State University. Bill also became an expert at grantsmanship by procuring grants for special studies and projects, mostly in Colorado. But by 1980, Bill was to take his calling as an educator to the state of California.

The Cal Poly Years

On July 18, 1980, Cal Poly announced Bill's selection to lead and grow the Department of City and Regional Planning in the College of Architecture and Environmental Design as its first full-time Department Head. When he entered the

Department, the program had only 85 students in the bachelor's and master's program. Nine years later, the program had 285 students, a nearly 360% increase in enrollment, becoming one of the largest planning programs in the nation during Bill's tenure.

It was at Cal Poly that Bill honed his pedagogy that student's planning education could be best enriched by the exposure to the workings of the "real world". To this end, he used his boundless energy to establish ongoing working relationships between the instructional activities in the department and local communities and government agencies in which he enlisted student involvement with projects and research, a practice that continues to this day.

Perhaps the best example of providing a hands-on experience for his students was what Bill did for the City of East Palo Alto in the early 1990s. Bill was contacted by the Packard Foundation to use his planning talents to assist East Palo Alto by taking the helm as its Community Development Director to bolster economic development and complete a new General Plan. In accepting the challenge, Bill was able to secure over $400,000 from the Packard foundation to fund the effort and took a sabbatical leave from Cal Poly to meet that challenge. He brought his unique talent and vision in addressing the economic and social challenges facing the city. Bill possessed just the right communication and social skills to gain the necessary support of community leaders in East Palo Alto and to bring other communities in the region to support a renaissance in land-use, resulting in enhancing the level of services, adding scores of jobs, increasing the tax base, and expanding resources that provided hope and a bright future to East Palo Alto.

Critical to the success of Bill's efforts in East Palo Alto was involving a great talent pool of Cal Poly students in the process that enriched their education while providing EPA with planning services at a fraction of the normal cost. Bill's dedication to his students was the right hallmark of his career and demonstrated his commitment to bridge the distance between academia and professional practice. What a capstone on an incredible career and planning! Bill was the epitome of the values reflected in the American Planning Association's FAICP program and gave back to the community a legacy that will never be forgotten.

The Retirement Years

After retiring from Cal Poly in 1994, Bill remained active in the field and this was when I got to know him best. Bill and I regularly met at happy hour to discuss the planning profession and how to best address the need for affordable housing. Over Old Fashions and Martinis, our conversations were spirited, stimulating, and always humorous. We truly enjoyed feeding off of each other.

If you want to get to know the Bill Howard I knew, read The Portable Curmudgeon, a collection of witty quotations by Jon Winokur. Bill gave me a copy and after reading it I realized that Bill was The Portable Curmudgeon!

Rest in peace Renaissance Man. You'll be sorely missed…

by T. Keith Gurnee

APA, BSCRP Class of 1973,
San Luis Obispo City Councilmember 1971-1977,
President of the California Planning Roundtable 2012-2013.

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Special Events

CRP International Online Presentations, Spring 2020

Engendering Cities: Designing Sustainable Urban Spaces for All

Inés Sánchez Madariaga

Architect and Planner, PhD. Professor, Universidad Politecnica de Madrid;
UNESCO Chair on Gender Equality Policies in Science, Technology and Innovation.

Having moved all teaching to online mode in the Spring quarter, Cal Poly's CRP Department promoted a series of four Zoom presentations by international speakers. The first, by Dr. Inés Sánchez Madariaga, focused on gender in planning and design, one of the most important but neglected issues in our profession. She is an international authority in considering the city from a gender perspective and the role of women in planning in general. Dr. Sánchez Madariaga presented some of work developed by her team that includes research, teaching, community outreach, technical advising, and consultancy.

In this presentation, I will be talking about the need of planning and designing the city and urban spaces in general from a gender perspective. I will be discussing a lot of the work we do, at the Universidad Politécnica de Madrid, that includes research, consultancy, training, and technical advising to the public and private sectors. Four years ago, the UNESCO added an exclusive chair on Science, Technology and Innovation to a series of chairs dealing on gender issues that under their Gender Equality Policies umbrella. I was invited to this chair in 2016, and that means that it gets located at my school and my research group. From all the UNESCO chairs on gender, this is the only one at a technological university addressing planning and architectural issues from a technical perspective, not from a sociological or the humanities point of view which is what the other gender UNESCO chairs do.[1]

Among the activities related to this chair, on the academic side we do education, professional training, research, and dissemination (Figure 1). On the professional side we do advocacy, engagement, consultancy, technical assistance, and strategic expert advice to the public and private sectors, and specifically to women organizations. We cover planning, architecture, housing, transportation and mobility, service and policy design, international cooperation in science and technology, climate change and design.

Around 1999, when I was a student at Columbia University, I took a course about women in planning and architecture, became very interested and started my independent research on these issues. By then I started looking at which concepts, ideas and topics that gender research had brought to light and could be relevant for planning, architecture and related areas such as housing and transportation. Since the 1970s, most of the gender related studies come from the United States and Europe, and the first issue I identified was the need to deal with gender stereotypes and social norms. Women and men are expected to do certain things because that's the behaviors expected from the society. These gender roles determine daily tasks which, obviously, have spatial implications. This relates to the sexual division of labor and the double workload that women assume when combining the productive and reproductive spheres. This is statistically demonstrated and, even if the numbers are changing a little bit indicating the gender gap has decreased, it is not really by much (Figure 2). The women do most of what is called care work, what has become so obvious during this coronavirus crisis, as people have had to isolate in their homes and take care of all tasks related to family needs.

The care work involves paid, but mostly unpaid, work by adult individuals on behalf of children, the elderly, the sick, and the overall functioning of the household. It includes escorting the elderly, the sick, youngsters, and kids who cannot move autonomously to medical facilities, to educational facilities, to shopping for essential items, to extracurricular activities, etc.

Editor's note: This presentation (April 23, 2020) was transcribed, edited and adapted for FOCUS with the speaker's approval. The original video recording is available at: https://youtu.be/uOFjfQMiuvs

[1] See https://www.gendersteunescochair.com

Figure 1: Diagram representing the activities conducted under the auspices of the UNESCO Chair on Gender Equality Policies in Science, Technology and Innovation.

Figure 3: Average time spent caring for children by gender in Spain, 2007. The data includes families without children. (source https://genderedinnovations.stanford.edu/case-studies/transportation.html#tabs-2)

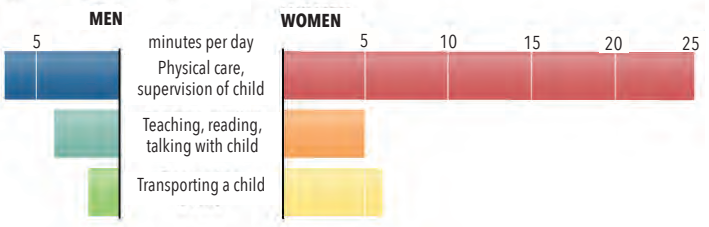
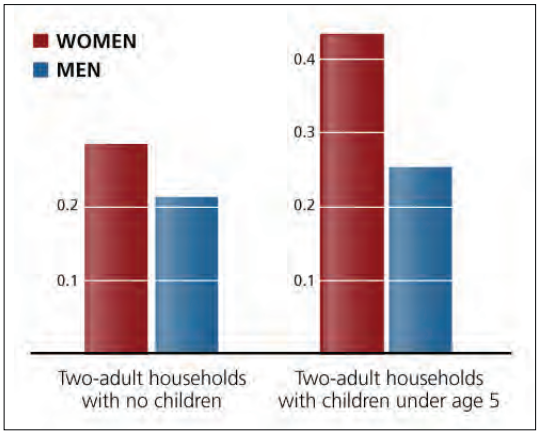


Figure 2: Trip chaining and average number of stops per commute by gender in the US, 2001. (source https://genderedinnovations.stanford.edu/case-studies/transportation.html#tabs-2)



Anything that is needed for daily living and implies moving around the city, going to specific places where certain services are provided and so on, and this is mostly done by women. In most countries this kind of work is unpaid but, in some countries, depending on how its social services are organized, care work is considered a public service and it is paid, such as in Scandinavian countries. The statistics show that these are mostly women's tasks which can result in quite complex travel patterns and result in big transportation implications. Data from Europe and the United States show similar gender gaps relative to who takes care of these activities and show a very different use of the city between genders (Figure 3). So, if we consider the movements generated by women who have a job to those of their care tasks, we got a very complex use of the city which is not really considered in planning that normally only considers a simpler, commuting transportation pattern.

Planning needs to consider concepts from gender studies and the implicit gender assumptions that have been used in our discipline and in institutional and professional practices. Much has been about the foundations of modern city planning since the 1960s, but we still have a long way to go in changing how planning institutions work and what we teach our students, with all the nuances that this implicate from zoning techniques to transportation to design. Some of the underlying assumptions are based on paid employment, on not considering housing as a place of care, and on transport as the means to link spaces of housing to spaces of employment, and less on other more complex interrelationships deriving from care activities. Some of planning implicit values and unconscious ideas, and their relationships to gender roles and sexual divisions of labor, are very rarely questioned.

Consider, for instance, the values underlying the construction of the American cities in the post-war period and, particularly, the American Suburb, so well-studied from the gender perspective by Dolores Hayden in her book *Redesigning the American Dream: Gender, Housing and Family Life*. There was an implicit understanding of gender roles made explicit in the planning and design of suburbs, and all the complexities of care work are certainly not reflected in policy-making, planning or investment decisions. If we look more particularly in transportation, we see that has been a lot of research on gender issues from a very empirical point of view maybe because in transportation studies are normally quantified in statistical data, particularly here in the United States.

Existing research points at quite consistent and big gender differences in transportation: men travel longer distances, women use more different modes of transportation because

[1] Hayden, Dolores. 2002. Revised and expanded edition. New York: W.W. Norton.

they have less access to a private car, they have less economic power and, depending on the country, there are cultural limitations for the use of private vehicles by women. Women travel for more different reasons related to care tasks and do more trips on a daily basis. Their spatial patterns of trips are quite different, and women's mobilities concentrate in shorter trips and a smaller geographical area closer to the home. Women also do more chain trips, meaning that they do one trip segment for one purpose then they do another segment for another purpose. Sometimes these segmented trips are made in different transportation modes: some on bus, some on foot, some might be made by ride in someone's car. These chain trips can get quite complex and are not properly studied in the transportation literature, are not considered in transportation surveys and, as a result, do not influence transportation policies.

The ages of voluntary cessation of driving are different too. Women stop driving when they see that they are in danger but men find it very difficult to assume that they cannot drive because of some physical impairment. Safety has different implications for women and men. Bus, train, and car ergonomics also reveal different gender needs for items such as seat adjustments, seat belt design, and reach of instruments and pedals.

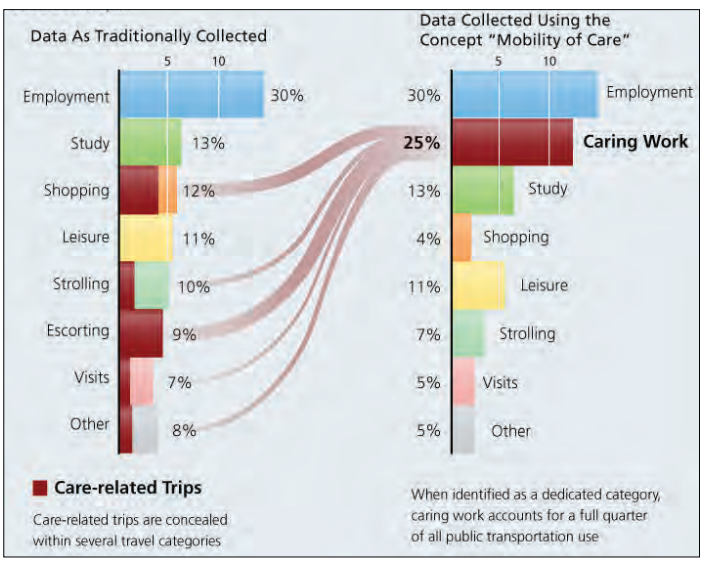
In a study we did on the mobility of the minibus public transport system in Nairobi, Kenya, we found that women were doing one more trip than men on average per day, and those trips were between 30 and 40 minutes each. These can be complex and difficult trips to do, and being able to do all the necessary daily tasks. We also concluded that some of these daily tasks were simply not done because of the transportation modes and the economic resources available to individuals and families.

Another study I did for Spain's Ministry of Public Works more that 12 years ago included a gender analysis of the country's main transportation databases as well as those of the regional governments in Madrid and in Catalonia. I identified gender biases in the way data were being collected and analyzed, particularly because they were using a rather standard categorization of trips such as employment, study, shopping, leisure, strolling, escorting trips, etc. And I thought, if we look from a gender perspective many of these types of trips could be called care trips because they are related to what women do to take care of the household and of other people. But if instead of scattered in many smaller categories all these care trips could be grouped into an umbrella category such as "care work", we can make them more visible and properly understand the size and implications of care-related mobility.

So, I came up with this concept "mobility of care". I did at the time a rough estimation of what such trips could involve: maybe two-thirds of shopping trips are needed trips to buy things you really need such as food, school supplies, cleaning products or even a new washing machine, but not to buy non-essential items or to enjoy time with friends in a shopping center. And let's assume that one-third of daily trips is to accompany people such as the elderly, the young or sick people either because they cannot go on their own, cannot drive, or there is no public transportation. From these, part of the trips is just for enjoyment or personal visits while one-third are because you are taking care of somebody who really needs the trip. Then I came up came up with this arbitrary estimate that perhaps 25% of all trips in the Spanish Ministry of Public Works survey were related to the mobility of care.

Later, together with a PhD student, I conducted a study which included a survey specifically designed to distinguish what trips were for personal or for enjoyment reasons from those for taking care of persons or of the home (Figure 4). Standard transportation surveys do not collect data in a way that allows us to separate necessary from superfluous trips. We applied our specifically designed survey to the population between 30 and 45 years of age in the Madrid region. We chose this demographic group as very significant because it includes people with younger kids who have to reconcile work and raising kids, and when care responsibilities are probably more important. The results showed us that 33% of the total of trips were job related while 29% were related to one of the categories we call "mobility of care". When we disaggregated the data by sex, the results were even more interesting. While among men 53% of trips were job related while only 9% were

Figure 4: Public transportation trips by purpose in Spain, 2006-2007. (Image by Erik Steiner, from the speaker's work cited in https://genderedinnovations.stanford.edu/case-studies/transportation.html#tabs-2)



care related, among men 40% were care related and 23% were job related. These results clearly show the gender gap in the use of transportation as the vast majority of care related is done by women. We have done similar studies with similar results in Irun, Northern Spain, in Buenos Aires, among users of the regional train system, and in Nairobi, among the users of the local mini-bus system.

In addition to these quantitative studies, we conduct qualitative studies regarding safety in transportation and public space generally, using a methodology called exploratory walks with women. This methodology was originally developed in Toronto and Montreal, and it aims at identifying safety concerns from women's perspective and their perception of danger from sexual assault as users of a transportation system or a specific public place. This methodology allowed us to make recommendations for Madrid and other cities.

We have also conducted two studies on gender and housing, one for Spain's Ministry of Public Works and another for the Basque regional government. For the Basque government we came up with specific requirements for housing design standards, such as the minimum size of bedrooms and kitchens, the need for storage space, and recommendations on the interior lay-out of the dwelling unit, and the design of common spaces in high-rise buildings. Our recommendations were adopted and made into requirements in the new housing legislation for the Basque country. For the Ministry of Public Works, we conducted an overall study of what gender implications could entice in housing, and concluded with recommendations of what should be looked in housing policies at different levels from the legislative, design and financing perspectives.

Currently, we are working in a number of European projects, many related to promoting women in science and technology, and in promoting structural change in organizations to support gender equality, which is a whole area of funding within the European Commission. We are now working in two of these. One is the Gender Quality Academy is about creating educational resources to promote women in STEM areas and to support gender research and education in planning, transportation and architecture. The other European project we are part of is the Gendered Innovations in Science, Health & Medicine, Engineering and Environment, a project funded by European Commission with Stanford University which first edition was published in 2013 and the second edition is now being finished. This project includes a number of gender related case studies in planning and transportation in smart solutions, design and use of public space, waste management, and preparing for climate change.

Figure 5: An exploratory walk with women led by the author's team. (source: https://www.gendersteunescochair.com)

Our team collaborates to a few networks on gender issues such as the UNI-Habitat Gender Hub, a hub of universities with the United Nations Habitat, and Gender STE International COST Network which I chaired for four years. This network is a big project funded by the European Commission and includes over 200 planners and academics in 40 countries, who exchange information, develop joint studies, conducted training events and workshops, and produced a number of policy papers and international conferences and publications. Through this project, we have produced a number of research reports, publications, articles and conference procedures addressing gender in planning, transportation, architecture, and the promotion of women in the STEM areas. [2]

Using this gender related knowledge and experience, and coupling it with technical analysis of plans and space, we have been working with several regional and local governments in Spain. It is important to note that, resulting from the 1998 Gender Treaty of Amsterdam, gender impact statements were introduced as a compulsory requirement in national legislations in Europe, and in Spain they became required at all levels in 2003. In Spain, the national government has a reduced competence in territorial and land-use planning legislation which is mostly left to regional governments. Because regional and the local plans are approved as specific laws and have the power of such, a number of regions are integrating gender clauses into their planning legislation and also requiring gender impact assessments.

[2] See, for instance: Sánchez Madariaga, Inés & Neuman, Michael (eds.), *Engendering Cities: Designing Sustainable Urban Spaces for All* (New York: Routledge, 2020).

Because of our pioneering work on gender and planning, my team has been engaged in developing pioneering gender impact statements and recommendations for plans, projects and land-use legislation for regional and local governments in Spain. For instance, we participated in the updating of Madrid's master plan and we advised the Extremadura and the Basque regional governments on introducing gender in their regional transportation and territorial land-use policies and on how gender should be introduced at the municipal level land-use plans. Our experience also made us work for the Interamerican Development Bank.

We have been doing consulting work for ADIF, a Spanish public company controlled by the Ministry of Public Works that owns and operates all railway stations in the country, both for normal and high-speed trains. We did the gender analysis in plans they are developing for three high-speed train stations located in very different urban settings, two of them in large cities. We looked at planning and design issues from a gender perspective in the stations, in the platforms, and in the areas around the stations, including orientation, accessibility, safety and vigilance, visibility, maintenance, and support care tasks for people travelling with the elderly or children. One of the important issues to deal with was accessibility from the perspective of gender, including ergonomics and safety for pedestrian underpasses or bridges, basically a problem of how to reconnect both sides of the cities safely from a woman's and caregiver's perspective (Figure 6). Our assessments included these issues during construction, which can take many years, and after the projects are completed.

We have also been involved in technical advising for redevelopment projects such as for the city of Irun's rail yards, for a square in the center of Valencia, and for Madrid's Nuevo Norte. In these redevelopment projects we provide advice and technical assistance concerning gender impact assessment in planning and design issues for the future residents and the women who live in the surrounding neighborhoods. The largest of these is Madrid Nuevo Norte, a plan that was discussed for more than a decade, got strong support from both the government and the community, and is considered Europe's largest redevelopment project in implementation, and the construction is scheduled to start next year.

Encompassing 54 acres around the old yards and the Chamartín train station in the north of Madrid, the plan extends for 3.7 miles long and 0.6 miles wide - equivalent in size and importance to La Defense in Paris and Canary Wharf in London. Madrid's ring road is also serving the area. The plan dedicates 23.44% for private development and 76.56% for public development, including 33 acres of greens spaces

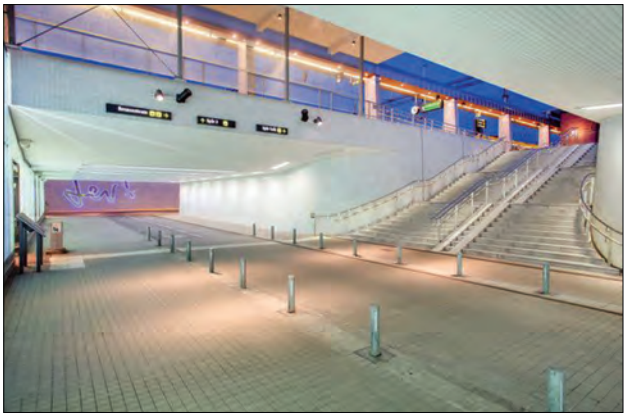


Figure 6: Better lighting in public spaces and walkways as recommended by the gender planning assessment at the Totana station of Spain's Murcia to Almeria high-speed train connection. (source: https://www.gendersteunescochair.com)

(Figure 7 & 8). There will be 348 new office buildings and a large a big central business district generating about 130,000 new jobs, and 11,000 new residential units of which 20% will be public housing, a renovated and expanded train station, access points to three subway stations linking to two metro lines, and a large central park over the train lines. Several international and Spanish planning, architecture, and engineering firms have been involved with this project; it's a huge engineering challenge how to cover the rail lines.

In this project we offered training on gender issues for managers and personnel of the social engagement and communication departments, and we also did consultancy and technical assistance for the gender impact assessment and during the design process. We worked in social inclusion with the neighboring areas that, almost mostly middle class, suffered from significant social issues and high unemployment rates. We conducted exploratory surveys, meetings and workshops, and we worked in the communication and dissemination of all these activities. The impact assessment was divided into five parts, the first addressing the master plan as a whole, and the others addressing the project as divided into four smaller areas.

We looked at how the linkages within and between neighborhoods would be impacted and what specific gender implications the new uses and facilities would cause. In term of transportation, besides the renovated and expanded Chamartín train station with regional and international connections, there were several access points to the subway, a new Bus Rapid Transit line, and the normal city bus lines. We looked at ease, comfort, and safety issues in the accessibility to the public transportation network and how to discourage the use of

[3] See the Madrid Nuevo Norte project at https://distritocastellananorte.com

private vehicles. Active mobility, pedestrian linkages and ease of movement were of particular importance not only because of all the sustainability implications but also because walking is the key physical exercise for the elderly and most women.

The distribution, access and safety of public facilities and spaces and green areas we fundamental. For instance, among our recommendations included in the plan and in the specific project documents are limiting the length of blocks and blank facades, and populating the ground floor with commercial uses to promote safer public spaces and parks throughout the day and weekends, even in the CBD. In another instance, the plan proposed this very long block with no street connecting both sides, and upon our recommendation the project detailed regulations now require that a pedestrian walkway be built. Many other safety issues are now required from implementation projects such as high visibility of public spaces and effective lighting.

The concept of "mobility of care" is, I think, a good addition to the understanding of gender in planning and, particularly in transportation planning and design. After we started the Gender Innovations project with the support of the European Commission and co-hosted by the University of Stanford, people started looking paying more attention to it. The Inter-American Development Bank, the UNESCO, and a number of regional and local governments adopted the idea and, together with the European Community's orientation for gender-oriented impact assessments, viewpoints, policies and guidelines are being reviewed to include women's and the care takers' perspectives. I think this has been the fundamental change of the last years.

What happens now? On one side I think the gender perspective in planning and design, as well as the mobility of care concept, are here to stay and it will influence our profession more and more. One the other hand, what will happen in the post-COVID 19 world? The coronavirus has imposed great challenges to public transportation, to public spaces, to redesign according, to architecture, and to the very notions of social relations and personal space. I think the epidemic has imposed a new set of responsibilities on care giving and, more so, on women. The future will certainly bring a lot of changes to planning and will make us think even more of the need to consider our plans and projects from a gender perspective.

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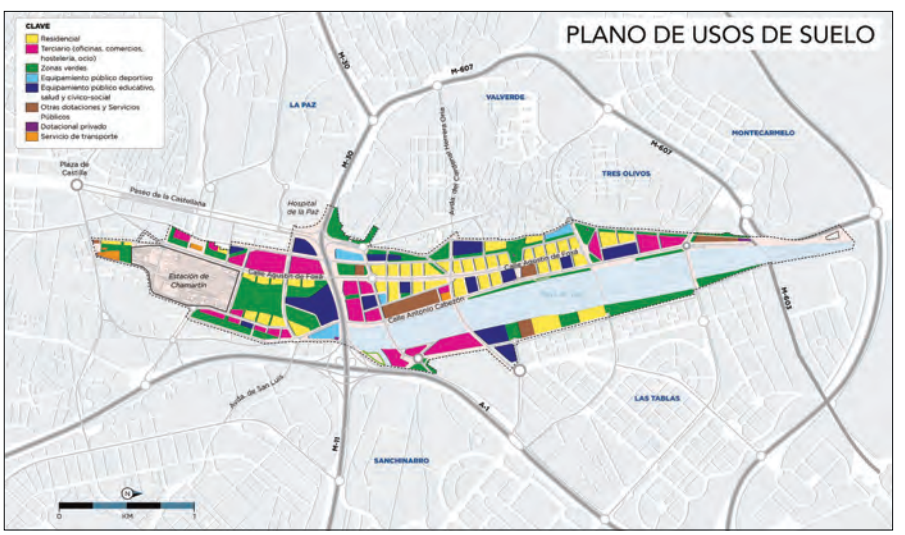


Figures 7 & 8: Madrid Nuevo Norte: land use plan and a partial general view showing the main park, the CBD and the new station in the background. (source press release from: https://distritocastellananorte.com/press-kit/?lang=en)

CRP International Online Presentations, Spring 2020

The Urban Land and Affordable Housing Global Crisis

Geoffrey K. Payne

Architect and Planner, PhD; Lecturer at the Development Planning Unit, University of London; International consultant on urban land development and housing in developing countries.

Having moved all teaching to online mode in the Spring quarter, Cal Poly's CRP Department promoted a series of four Zoom presentations by international speakers. In the series second presentation, Geoffrey Payne focused on the increasing crisis in accessibility to urban land and affordable housing in developing countries. He discusses his experience as a consultant and advisor to international development agencies, and the major challenges and options for progress that we face.

Thank you very much indeed for this opportunity to share ideas and meet old friends again after a long time, and I am grateful to this technology that makes it possible. It's funny you should mention John Turner's work[1] when introducing me because he was a big influence on my career and he contributed to a book I have co-edited titled The Living City: Towards a Sustainable Future, published in 1990. Interestingly, I was recently contacted by the publisher as they wanted to reissue it without any changes and they did so just a couple of months ago. Now, my initial reaction to that was one of great flattery and a very good feeling that they wanted to do it. Then I thought: if this 1990 book, on ways towards a sustainable future, is still considered relevant today either nobody read it or nobody took any notice of it! Several leading professionals of the time contributed to that book and, sadly, the world seems to be going around in circles as a lot of the same things need to be said again and again and again.

In a way, today I will be talking on that basis because I want to use this pandemic as a chance for us all to sit back and reflect. I am certainly doing that myself in this presentation: reflecting on what I have been doing and the implications it may have for the future. And just thinking personally, I was born when the British were the head of an empire, a vast empire. And now we've become just a small island, going on alone in a very uncertain context. I graduated in 1968, a year of student protest around the world when we were so arrogant and innocent to think that we could change the world. I was lucky; I got a scholarship to go to India and to study issues related to migration, people coming into the city looking for jobs, looking for a better future for themselves and their children. And I remember being invited for lunch at the British Council when a very nice lady asked me what I was doing. I said, "Well, I'm studying the slums." She asked what did I think needed to be done? I said, "Well, the people tell me that they want basic services, basic security, and to be left alone," to which she said, "Oh, how interesting", turned around, and spent the rest of the meal talking to the person on the other side. So, very quickly, I understood that that wasn't what she wanted to hear. What she wanted to hear was, "How can we stop all these people flooding the cities and spoiling them." That's when I became aware of the different attitudes towards urbanization, development, and so on.

I spent about a year in Delhi studying and spending a lot of my time in this particular squatter settlement, which had been built along a railway line (Figure 1). One thing that quickly impressed me was that open space is never, ever wasted. If you go to any squatter or informal settlement anywhere in the world, you will

Editor's note: This presentation (May 7, 2020) was transcribed, edited and adapted for FOCUS with the speaker's approval. The original video recording is available at https://youtu.be/SNz18mw4hWI

Note: See Geoffrey Payne's work at http://newgpa.org.uk

[1] John Turner is an influential British architect-planner whose work and writings revolutionized housing theory and practice. In the books *Freedom to Build* and *Housing by People: Towards Autonomy in Building the Environment* he laid his philosophy on the effectiveness of community autonomy, participation and self-helf in housing while having the government and the market as enablers of processes, financing, and infrastructure.

Figure 1: Intense use of all available space in a squatter settlement; Dehli, India, 1970. (photo by the author)

Figures 2 & 3: A Geçekondu*, a squatter settlement, in Ankara in 1975. An early and a later phases. (photos by the author)*

see that every square inch of land is used and that the same land is used in several different ways during the day, the week, and the year. In this image, you can see a person cooking on a pot in the middle of the thoroughfare, and, in the distance, there are animals grazing although the image is not that clear because of the smoke. You can see people in the foreground sitting on what are beds, which they may sleep on at night, and you can see children playing. So, what you are looking at is the community living room. There is a group of women sitting under a tree, making the most of the chance to interact. An official plan view would only show that space as a thoroughfare, but this is their living room because the houses they live in are very small. The image shows one of their biggest houses. One of the first lessons I learned is that the way you use space, the way you use land is very, very different if you are poor than if you are rich and can afford high standards. Throughout my professional experience, I have seen many, many public housing projects with vast amounts of "dedicated open space" that remain underutilized, vacant, and even dangerous wastelands.

When I came back from India, I was invited to give a lecture at the Architectural Association School of Architecture. Paul Oliver, one of the professors and an eminent author on vernacular architecture, said to me: "Well, we don't have anybody teaching that. Would you like a job?" As a result, I taught at the AA for four years and in 1974 I went to Turkey with my students for a research project. I persuaded the school director to let me buy a Volkswagen mini-bus for this trip, and my wife Rita and my students drove from London to Ankara. We drove around Turkey, did the study, drove back, and I even sold the van for a profit! You can imagine that I was quite popular for that but nowadays one would never be allowed to get away with such a scheme.

In Turkey, I studied the squatter settlements which they call *geçekondu* meaning "landed by night" because, at the time, the Ottoman Land Act, protected squatter rights if they had a roof over their heads (Figure 2). So, families arriving in the city, normally coming from rural areas, invade land, define their lots, and build a structure overnight to avoid eviction. Over time, the informal structures would evolve into very nice permanent houses or apartment blocks like those shown in the background (Figure 3). Commonly, a developer would come in, offer to buy the land from them, or to exchange it for maybe two apartments for each household in the new block. Eventually, the city would bring in the infrastructure and roads. Over a periodo of time, everybody was able to be assimilated into the formal land market. And that was all done on a self-financing basis: everybody benefited, the poor, the developers, and the city. So, I wanted to learn from that process and see how planners could facilitate bottom-up, participatory, self-financing urban development.

Challenges: Colonization, Inequality and Climate Change

Now, I would like to talk a bit about some of the challenges in urban development, and the first one is colonization. Colonialism, industrialization, and globalization have all caused massive impacts on the ways people can access, occupy, develop, and transfer land and housing. You might say, "Well, colonialism ended decades ago, a century ago." But in fact, it's been only four or five years since India replaced the Land Acquisition Act passed by the British in 1894. Colonialism still has a very long shadow over several societies and influences what goes on now. Industrialization and globalization have also exerted massive impacts. I was just reading a paper the other day about how the 22 million migrants in the Gulf States alone are being adversely affected by the Coronavirus pandemic and what's being done to rescue them. So, we are looking at drivers of change that have had massive impacts. A lot of people, like the lady who interviewed me over lunch in Delhi, think that urban growth can be controlled and stopped. For me, the challenge is how to manage it.

At the moment, globally, about one billion people are living in slums and squatter settlements, a total that may go up to 2 billion by 2030. And 800 million estimated additional urban residents will be living in Sub-Saharan Africa by 2050. Eight hundred million is more than the combined urban population of Europe, North America, and Mexico combined, and that's over 30 years. And not many people realize that 30% of China's urban population is not counted in the urban statistics: it is estimated that 70 million residents in China's big cities are unaccounted for. If you think of Shanghai's 18 million people, you can add millions of people more that are living there without legal permission. Evidently, all these people are all contributing to and, in fact, are probably essential to the urban economy but unless we take radical action, these informal settlements are growing much faster than planned land and housing developments. If you consider that 80% of the urban population in some countries are living outside the formal land market, the housing market, just think what the pressure is going to be on land, housing, services, and jobs, over the next 30 years. This is historically unprecedented; a phenomenal challenge facing governments, the international community, civil society, and professional entities.

I think we have to acknowledge that economic growth has lifted many millions, tens, hundreds of millions out of poverty. But, unfortunately, the form of neoliberal economics and market-based development has also posed an incredibly heavy burden on the planet. Even more, millions of people are being denied access to decent housing, and, as we know, of course, the subprime crisis of 2008 was triggered by the mismanagement of the housing sector in just one country --and I am sure you know which country I am referring to.

Land and housing are still seen, despite the subprime crisis, almost exclusively as financial assets, not a place where to live and raise a family as part of a community. This distortion of what land and housing mean is part of what I am writing about at the moment. Despite this crisis, land remains an asset for investment by the landed classes and the global elite, making it unaffordable not just to the poor but to middle-income families too. This problem is also affecting the Global North. On a personal level, my consolation is that I no longer have to feel guilty of being a white, British male going around the world speaking about these issues, because they are affecting my country and the USA just as much as it is in other countries. These problems are now affecting the options and roles of professionals, governments, donors, NGOs in managing urban land and housing markets, and these options have changed dramatically. The silver lining, I think, is that if land and housing are a physical expression of a social, economic, and environmental crisis, they can therefore be part of the solution, and that's what I think is exciting. We need to use this opportunity to stand back and reflect on the challenges ahead and how to solve them.

Another major challenge is climate change. Maybe not everybody knows that the hurricanes that hit the Caribbean and the southern part of the United States originate from hot wind currents coming from the Sahara. And because of global warming the Sahara itself is expanding southwards by about 30 miles a year in some places. It's becoming bigger and generating more heat, a dry heat that the trade winds drift westerly across the Atlantic, which is also getting warmer. We are generating more frequent and more intense storms, which hit, of course, the Caribbean. I was recently working in Vanuatu, a nation of islands in the South Pacific, which was hit very hard by Cyclone Pam in 2015. And three weeks ago, when they just had recovered from it, they were hit by another, Cyclone Harry, which devastated the country. We are now living in a world where storms and all consequences of the climate crisis are becoming more intense.

The third major challenge we need to address is global inequality. In the United States, the bottom 99.9% of the population pays 28 times more tax than the top 0.1%. Market capitalism, as defined by Adam Smith, didn't just promote the private sector and self-interest, what it was promoting is enlightened self-interest, something people don't talk about enough. Smith advocated for a market where sellers had an interest in meeting not just the short-term but also the long-term interests of their clients and customers. That is being ignored by the current advocates of market capitalism. Of course, Neoliberalism goes back to the 1940s and 1950s, and that has led to, I think, everything to be considered as 'value for money' but with the benefits concentrate at the top.

The recent Oxfam reports to Davos, the Global Economic

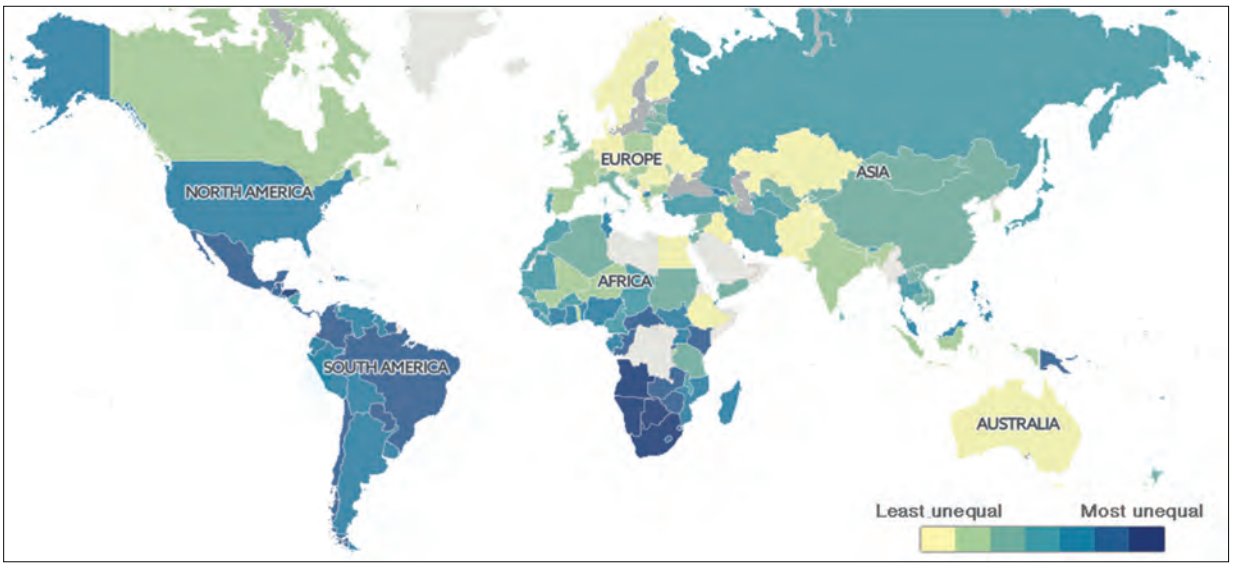


Figure 4: Map based in the GINI Index, showing world inequality in 2018. Based on estimates by the World Bank. (source: https://rwer.wordpress.com/2018/08/10/the-most-unequal-regions-in-the-world/)

Summit, show that, in 2014, the top 1% controlled as much wealth as the lowest 50% of the population. In 2015, that was down to 85 individuals. In 2016, 62 individuals. In 2017, 8 individuals. In 2018, 1% of the population bagged 82% of global wealth. And in 2019, billionaire income increased by 2.5 billion a day. Now, this is totally unsustainable, totally unjustifiable in any decent standard of economic development. Consider the Gini Coefficient[2] which measures inequality. The higher the number, the higher the level of inequality. (Image correlation?) depicts a few examples from the western hemisphere and, as you can see, the numbers are getting higher. If one looks at the situation in terms of how that's happening, tax evasion and avoidance by multinational corporations are condoned by the UK with its tax havens, though the EU is doing more to fight back. But look at which are the most unequal countries?

The United States and the UK score very badly in terms of their levels of inequality and it is obvious that these issues are affected by the distribution of land and housing. The UK is a good example as only 1% of the population owns 70% of all land, a third of that is held by the aristocracy. And the guy who owns this particular estate was critical in making decisions about people who lived in a badly maintained social housing tower block which recently caught fire killing 72 people. At the same time that the Gini Coefficient reveals these inequalities, it is interesting to look at the World Happiness Report[3] and to notice that Vanuatu, one of the world's most vulnerable countries, is regularly scored among the happiest, partly because their expectations are low because they have got a low ecological footprint and live within their means.

The gulf between the rich and the poor is now so great that people in power, people in positions of privilege are making decisions on behalf of people about whom they know nothing and care even less. And this is what makes me angry and has got to change. At the same time as Ronald Reagan in the United States, Margaret Thatcher began the privatization of social housing in the UK. And you can see now why social housing became so derelict. The people living there who couldn't afford to buy their housing ended up living in what was called sink estates and they had no sympathy from the government. In the global south, people were forced to live on bits of land that nobody else wanted alongside roads, canals, and the railway lines. And yet we see that the professional government responses are often completely unrelated to the realities.

Take the example of New Kigamboni, a satellite city for Dar es Salaam, Tanzania, a city of a 3.5 million people where 80% live in informal settlements. Commissioned from Korean planners by the Ministry of Lands, the modernistic plan was conceived for 500,000 residents as a massive real-estate operation to, ideally, generate significant social and economic benefits. The same happens in Rwanda, where the government is planning a massive redevelopment for the capital Kigali based in huge

[2] The Gini coefficient (Gini index or ratio) is a measure of statistical dispersion intended to represent the income inequality or wealth inequality in a nation or population.

[3] The World Happiness Report is a survey ranking countries by how happy their citizens perceive themselves to be. It has been published yearly since 2012 by the Sustainable Development Solutions Network. See https://worldhappiness.report/

sleek contemporary tower blocks that have nothing to do with what the large majority of their population needs (Figure 5). These plans remind me of Le Corbusier's wild speculations for the modernist city. What governments like and many professionals still support is way off from what most people need.

According to the United Nations indicators for house-price ratios, the cost of buying properties is now completely unrelated to incomes around the world. The UN-Habitat estimates that affordable house prices should be around four times the household's annual income; anything over four to one is unaffordable while five to one is seriously unaffordable. But that is not the way it is in most cities. For instance, in Jakarta, the ratio is 14 to 1 while in Bogota it is 19 to 1. Totally unaffordable, unrealistic costs of entry to the formal housing market. What can we do about it?

To get a basic house, the ordinary household has to put together land, finance, services, and materials. If the options for these are very limited, if the only way of getting land is on the market or through the government, the only way of getting finance is from a bank, or getting services is from the local authority, it's not much help that there may be lots of options for getting materials: you can buy them, make them, recycle them but that's not much help. You really need to get through the first three barriers. So, going back to John Turner's original theory, I would say that the main role of government needs to be to open the supply system and be its regulator because if the range of options is very limited, there is no pressure at all on whoever supplies those systems to respond to the variety and diversity of demand. There is no incentive to be efficient or to respond to change. But if you have a diverse system, in which the government regulates and stimulates the supply (social housing, co-housing, civil society, participatory housing, as well as government and market housing) a much more open range of options enables supply to be demand sensitive. And that, to me, seems to be the principle on which government action should be based.

Option for Progress 1:
Land Tenure – Is Ownership the Answer?

So, you could ask, is ownership the answer? Well, anyone who read Hernando de Soto's famous book *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* would be under the impression that ownership of property is the answer to all because, as he notes, people lacking ownership are unable to use their land or property assets as collateral. The concept of "getting on the property ladder", promoted by Thatcher and Reagan in the US and UK, and globally by de Soto and the World Bank, became the model for the housing market but it only stimulated demand not supply. Move forward to the last decade and we can see that not only

Figure 5: Redevelopment project for Kigali, capital of Rwanda. (source: https://www.pinterest.com/pin/294211788136802230/)

this model did not meet the housing demand of the poor but pushing it too far led to the subprime crisis.

Although the UK is considered a property-owning democracy, we have only been a property-owning democracy basically since after the Second World War. Margaret Thatcher, as I mentioned before, sold over a million public housing assets for a 10th of their value, encouraging the use of housing as a commodity, following De Soto's and the World Bank model. Between 1970 and 2007 house prices in the UK shot up 47 times until the bubble burst. So, looking at housing as an asset, I think has been part of the problem and has led to higher levels of homeownership not needed by the young, the poor, or the old. I would say that if any country has more than two-thirds of its housing stock in ownership it is because they are probably using ownership for the wrong reason, as a speculative asset rather than to meet housing needs.

High levels of homeownership are often associated with economic vulnerability: China and Cuba (90%), Spain (80%), Greece and Portugal (75%), USA (70%), etc. And yet, you look at Germany and Switzerland with 52% and 43% levels of homeownership, which are very low, no one can say that they are suffering from economic crises. So, homeownership is not the answer to economic well-being, and I would say that the two thirds or 67% rule should be the maximum that any country should regard as reasonable and sustainable.

Now, if you look at many countries around the world on the Global South for a moment, you would see a wide range of tenure categories, from living on the street to being a tenant in a squatter house, or its owner, to regularized house, and

so on. Only a small percentage of these categories--8, 9, and 10-- are formally, legally, occupying the property. So, if you are looking to intervene, imposing ownership on one category is massively distorting the market, and therefore the behavior of every other category in that total range of tenure categories. And what is the alternative? I would say a better approach is to improve the rights of people lower down the spectrum. By doing so you are not necessarily distorting the market but reducing the level of inequality and improving the security of people at that lower level of the spectrum. Then, if the gap between one category or sub-category and another is making it difficult for people to move from one level to the next, that would be a particular point where the government could intervene by introducing another category of tenure.

Now, what to do about the challenge of "informal" settlements? I have demonstrated that tenure systems are complicated, that to be successful you need social legitimacy as much as legality, and that although titles and ownership may be useful, home homeownership is not appropriate for everybody and will not increase access to credit if incomes are low. That happened in Asia in their 1998 crisis as well as in the USA and the UK during the 2008 crisis. These are lessons we need to learn from.

We need to accept that there is no simple solution, that a pluralistic approach is better, and that changing these things takes time. But there is a range of short, medium, and long term options around the world that are relevant in a wide range of contexts that we can build on to improve the efficiency of an existing complex land and housing market. Among the short term, tenure options are moratoriums on relocations and evictions, temporary occupation licenses, and certificates of comfort. Among medium-term tenure, options are communal trusts and leases, individual leases, private rentals, and certificates of rights. And among the long term tenure options are communal ownerships and property associations, community land trusts, coop and condominium ownerships, social concessions, public rentals, and individual ownership or title. I tried to represent them through a chart in a single sheet, which I can't go into details now, but is one of the resources available on my website. The template can help for a quick analysis of the tenure categories in any city. (Figure 6).

Option for Progress 2:
Land Management and Planning

Land management and planning is another option for progress because they can help promote inward investment in ways that promote economic development but also enable the state to capture a reasonable proportion of the surplus generated through the provision of planning permission and increased land values. This surplus can be re-distributed to those in greatest need. The government should move from being a controller to being a regulator of the market. And in making sure that its actions, which actually impact land values enormously, can be captured to a reasonable extent and redistributed to meet social policy objectives.

A simple lesson for planners, architects, and other professionals like us are to find out what works in a given context and then find ways of building on it. This is not a very complex proposition but I am amazed at how infrequently this approach is applied. We need to understand how to manage land markets in the public interest, and how to create a robust and transparent means of maximizing public benefit. Assess what represents a reasonable profit for a certain level of risk and make it easy

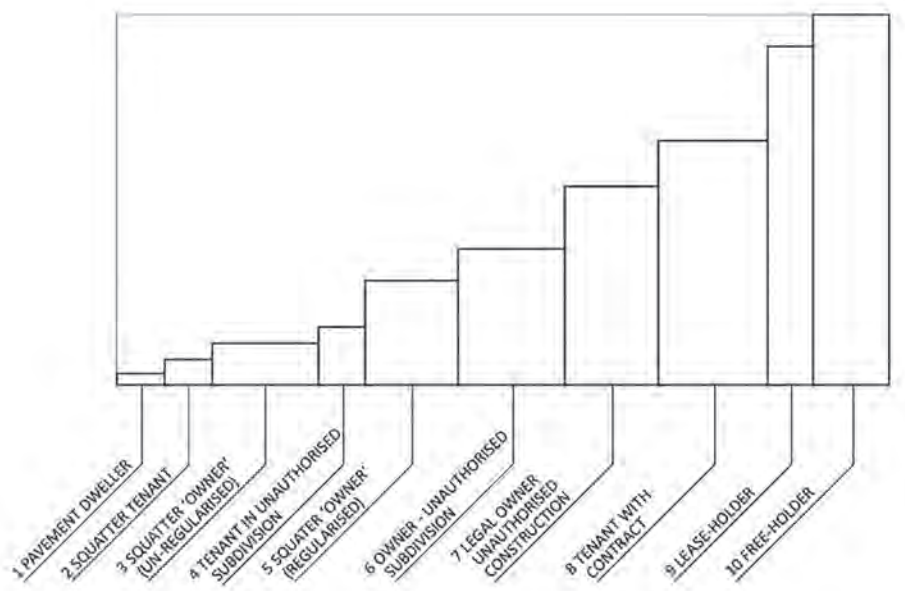


Figure 6: Typical distribution of land tenure categories by legal status in the Global South. For simplicity, this illustration does not include customary and Islamic tenure categories. (by the author)

to achieve but difficult to exceed through fiscal measures. I am not against profit, but I do think that the benefits and the costs need to be more equitably distributed. Developments need to be considered in terms of their social and cultural importance, not just economic. There is a whole range of ways in which we can do that, and one of them is through regulatory frameworks.

Regulatory frameworks need to define and permit appropriate standards. This is something I did with my book "Urban Housing Manual".[4] I have worked in many countries of the global west where building standards are totally unaffordable for the majority of the people. In Uganda, for instance, they made it impossible for the majority of the population to be legal. In Mongolia, every individual citizen is entitled to up to 700 square meters free, but that makes the cost of infrastructure provision impossible, although, on the other hand, India permits plot sizes of only 250 square feet. So, I think we need to tax land according to its approved use-value and reclaim land not developed on time to avoid speculation, encourage public-private partnerships, and make sure that smart cities are well regulated not just high-tech. For example, six weeks after Chennai was designated as one of India's 100 smart cities people were walking around ankle-deep in sewage water because its 19th-century infrastructure had not been upgraded. So, we need to start with the basics, get that sorted, and then start talking about smart technology.

Option for Progress 3:
Increase the Scale and Diversity of the Housing Supply

The thrird option for progress regards the scale and diversity of the housing supply. For instance, we need to:

- Increase the scale and diversity of the housing supply, identifying the constraints to the existing system and making sure that design standards reflect realities, not just aspirations like they were doing in Rwanda and Mongolia;
- Enable land and buildings to be financed separately, encouraging more user control over design and construction so that people can buy land and build on it as they can afford;
- Promote a mixture of land uses and tenure options to encourage social integration and diversity;
- Permit really basic starter homes to reduce entry costs and promote solutions such as sites and services or energy walls projects, where you provide the wall with the services and let people do the rest for themselves;
- Upgrade existing substandard housing where possible and obviously promote co-housing, which enables people to share domestic facilities;
- Look at innovations such as those occurring in care-homes and housing for the elderly which can provide play space and daycare for children and even free accommodation for students if they work a certain number of hours per month caring for the elderly residents.

There are all sorts of interesting and exciting innovations being pioneered, many in the Global South. Interestingly, I am credited on Wikipedia for coining the term "First-World problems" because in 1979 I published a paper titled "Third-World solutions to first-world problems," meaning we can learn from urbanizing countries that are forced to innovate.[5] When I was in Uganda a few years ago they told me they wanted standards of housing appropriate for a middle-income country, and what would those be? So, I showed them the photo in Figure 7 and said: "Look, this is a two-bedroom house in a high-income neighborhood in Portsmouth. With only 1.5 meters (4 ft 10 in) wide it is believed to be Britain's narrowest and that guy bought it 20 years ago because it was what he could afford. Now he has put it in the market with a starting bid of US$190,000 and it will certainly go for more in that area." Ugandans simply couldn't believe this was possible and they wanted high standards from middle-income countries. I am not advocating promoting this type of house; all I am saying is that we need to be more realistic when we talk about what people can afford.

Figure 7: Britain's narrowest house in Portsmouth. (photo: Solent News & Photo Agency, from http://www.mirror.co.uk/news/uk-news/narrowest-house-britain-goes-market-4269194)

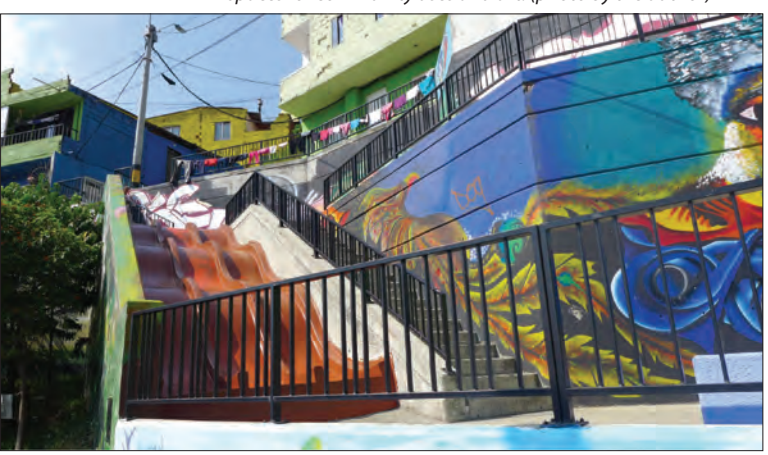
[4] See Payne, G. and Majale, M. (2004). *The Urban Housing Manual: Making Regulatory Frameworks Work for the Poor.*Oxon: Earthscan.

[5] See Payne, G. (1979). Housing: Third World Solutions to First World Problems. *Built Environment 5* (2), Lessons from the Third World, pp. 99-110

Figure 8: Flexible, cost-effective and efficient mixed land use in Phom Penh, Cambodia. (photo by the author)

Figure 9: Extreme self-sufficiency in the middle of nowhere, Mongolia. (photo by the author)

Figure 10: Upgrading squatter settlements in Medellin through increased accessibility, new infrastructure and spaces for community uses and art. (photo by the author)



The UK used to have a very proud record of social housing in the past and we were a world leader until Thatcherism and the dismantling of the public system. We need to get back to recognizing that social housing does also has a role. Figure 8 shows an example of mixed land use in Phom Penh, Cambodia: very flexible, very cost-effective, very reasonable standards, and very affordable. Figure 9 is an example of self-sufficiency taken to the extreme: a woman I met living in the middle of nowhere in Mongolia. Her house had a TV with a satellite dish and a battery-powered by a solar panel which she used to watch soap operas from Korea!

Great examples of improving connectivity and access to services are the upgrading projects in Medellin, Colombia. They helped transform one of the most dangerous parts of what used to be one of the most dangerous cities into a tourist attraction. Together with the accessibility solutions they provide imaginative recreation solutions for children without taking much space and promote local artists through murals on the walls improving connectivity and access to services. (Figure 10). The place is much more habitable now. Another good example of improved infrastructure is in Indonesia where they did not change much but supported the street as a living space. They paved and provided drainage on each side, allowing people to have their chairs outside and to put pot plants above the drain as it goes past their houses. This cheap infrastructure solution provides for a fundamental social space and the possibility for each family to express their identity. And they had competitions to make street entrances exciting, fun, and unique (Figure 11).

In Tirana, Albania, the mayor was an artist and the city had no money to improve the old stock of communist housing, so he was creative and had the buildings painted with different colors making them more fun and attractive. This man is now Albania's

Figure 11: In Indonesia, simple street upgrading provided better access, social space for families, and encouraged competitions for different gateways. (photo by the author)

prime minister. We assisted them in thinking how land in the city's periphery could be redeveloped more efficiently under a land readjustment scheme with community participation. Besides giving residents security of tenure, being more efficient the scheme provided space for infrastructure, community facilities, and additional lots for sale so that the whole community could be economically better off and living in a better environment. It can be a win-win situation if you do it right.

In India, where the required minimum lot is only 250 sq. ft. and very modest standards are accepted, this project in New Delhi has the plots organized around small courtyards so that everybody had access to an open space. In this development they built a block with a show-house by a courtyard to show people they would be given a plot and allowed to get on with their houses according to their needs and possibilities; and I have seen two or three-story buildings on developments like that (Figure 12). When I was working in Ismailia, Egypt, we did a whole series of examples for incremental land and housing development. The higher income homes would be located by the development's full serviced roads where land would be more valuable, with the more modest units in the interior of the blocks, connected by alleys and courtyards, on the assumption that they would get their services later but wouldn't have to pay the full cost at the start. Incremental development, allowing things to take place over time, is a fundamental concept for a more equitable urban development. Don't expect everything to happen just at once.

So, putting it all together, I would say that the big political challenge, the big concern I have is if the economic and political elites are happy with the status quo, why should they change? Given all the examples I have told you about--all of which are in the public domain and all we know about as professionals--why are they not being implemented more widely and quickly? As professionals and academics, we need to be much more persuasive in addressing those in power or in promoting alternative champions. We cannot stand on the fence because everything we do is ultimately political. The Paris Accord, the SDGs, the climate crisis are now giving us opportunities for much stronger regulations and for putting multi-national corporations on notice. We need similar approaches to land management and planning. The relationship between the state and the market is key. Many governments promote innovation and Mariana Mazzucato's book "The Entrepreneurial State" provides us with possibilities and many good examples.[6] How can we combine the best of capitalism and socialism to create more socially and environmentally sustainable markets?

Figure 12: Infrastructure and plots organized around a courtyard in a high-density development, with a three-story unit ready. (photo by the author)

I would call it social capitalism. When I asked a friend in Cuba, where I was going to make a presentation, if she thought social capitalism was a good title, she said "No, no, no. Don't mention the word capitalism." So I said "How about regulated markets?" and she replied, "Oh, that's very good". In other words, the terms we use for these ideas are critical. We need to say how we can become more persuasive in promoting these principles, and giving the examples that work.

I think we also have to accept the fact that we cannot keep consuming indefinitely. In this sense, I would recommend the books "How Much is Enough?" and "The Spirit Level".[8] We need to ask ourselves what do we mean by a good quality of life, why equality is good for us, how land and housing can be a means of achieving this. And of course, housing is central to all of this. Smart cities require smart regulation in the public interest, not just smart technology, and Germany, Scandinavia, and Colombia are good examples in this respect. Policies and plans must be based on what people need and can afford. Planning standards, regulations, and administrative procedures need to be appropriate. I would say that this is a most exciting time but sustained public and professional pressure will be needed to put this theory into practice.

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[6] Mazzucato, M. (2015). *The Entrepreneurial State: Debunking Public Vs. Private Sector Myths*. Revised edition. Philadelphia, PA: PublicAffairs / Perseus Books.

[8] Skidelsky, R. & Skidelsky, E. (2012). *How Much is Enough? Money and the Good Life.* New York: Other Press. Wilkinson, R. & Pickett. K. (2011). *The Spirit Level: Why Greater Equality Makes Societies Stronger.* New York: Bloomsbury Press.

CRP International Online Presentations, Spring 2020

Place Marketing and Destination Branding

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Having moved all teaching to online mode in the Spring quarter, Cal Poly's CRP Department promoted a series of four Zoom presentations by international speakers. In the series' third presentation, João Freire presented fundamental concepts on place branding and marketing, and discussed his innovative study on the Algarve coast's brand identity completed for Portugal's Tourism Board which results have strong implications for regional and local planning.

My presentation is based on a case I worked on in the Algarve, a region in the southern part of Portugal. The region is very well known for tourism, both nationally and internationally, due to its great climate and beautiful beaches. Its economy is highly dependent on tourism. A few years ago, I conducted a study on what attracted British tourists to the Algarve. The British are the most important group of visitors to the Algarve. The local tourism board realized that to develop a successful marketing strategy for the British market it was important first to understand the Algarve as a destination brand.

But before the case study, I would like to discuss a couple of basic issues in branding. I will start with a simple question: if you are shown this T-shirt at a shop, how much money would you be willing to pay for it? A normal T-shirt without a logo sold at Costco. Probably, you would pay US$15 or US$20. But what if the same T-shirt had a Nike or another well-known logo stamped on it? Now you would probably be willing to pay more for it, probably US$35 or even more. This is a bit silly if you compare each shirt, it is the same piece, the same quality of textile, and the cost of production for both is basically the same. There is a price difference because, in reality, consumers are willing to pay for a branded product. The brand has a symbolic value that bestows some level of quality on the product. For consumers, a brand is a guarantee of quality, and that's one of the reasons why branding is so relevant in today's society. The other reason why brands are so relevant today is that individuals use them for expressing their own identity, use them as a reference of individuality, of a specific culture, or of pertaining to a certain social group. People use brands to define themselves and place themselves within society.

Particularly from the 1980s and 1990s, the relevance of brands increased with the explosion of new products in the market. To lower consumption risks and reduce the opportunity costs of evaluating each offer or each product, consumers started making their purchase decision based on the brands they knew. Brands could guarantee a certain expected level of quality. Additionally, brands allow for the expression of one's personality and group membership. Within this paradigm, brands add value not only to products but to their companies as well. Brands have value, in fact, in the early 1980s, for the first time, a company was allowed to include the valorization of their brand in their balance sheets. Nowadays, companies can valorize their brands and include them as an asset, an intangible asset in their balance sheet as it adds value to all of the company's products. It is interesting to see how companies are striving to understand the market value of their brands or, in other words, how much more their shares are worth in the market because of their brand.

Brands are very relevant in today's society and they add a lot of value for companies beyond tangible assets, skills, patents, buildings, or anything like that. A brand is a huge factor of success for companies because they often influence consumer decisions. The rankings of the best global brands, reported yearly by the consultancy firm Interbrand, reveal that in 2019,

Editor's note: This presentation (May 21, 2020) was transcribed, edited and adapted for FOCUS with the speaker's approval. The original video recording is available at https://youtu.be/ei3ZoPVe-YY

Apple was the most valuable brand valued at US$ 234,241 million, a 9 percent increase from the previous year! And Amazon's brand, the one that grew more from the previous year at 24 percent, was valued at US$ 125,263 million.

Brands project a company's image and guarantee a certain level of quality. For certain types of products, people can use brands to express their personality. This rationale about brands applied to products and services has been well studied in academia and the industry. But the next question is, can we also apply the concept of branding to other areas? Can we talk about people and places as brands?

Can we say, for instance, that Scotland, Vienna, or the USA are brands? Can these places be managed as brands just like products and services are? There is a big argument here because many people say yes, it can be done, while others say no, it's impossible because of the lack of control over the places. It's much easier to control a company, the quality of its product, and the market it responds to, while there are so many more concurrent and different variables in a country, a region, or a city. An organization can control the way the employees or staff work or behave by establishing guidelines by contract. You cannot expect people in a city, a region, or a country to always behave in certain ways; you can't dictate behavior. On the other hand, critics also say that we cannot change the stereotypes that people have of certain countries or cities. So, according to this line of thought, it is impossible to manage places as brands, and, therefore, investing in place branding is a waste of precious resources.

Looking from a different angle, we realize that place branding is a possibility because places are embedded in meanings, and meanings evolve, they are not static. The stereotypes that people have for a country, a region, or a city does evolve through the years. So, again, the issue is one of control. Should I control or manage how these stereotypes evolve? What I want to demonstrate with my case study is that, yes, there are techniques, there are ways that help us manage place image. There are two levels in which we can manage the image of a place: at the communications level and the product level.

Marketing places or place branding is a relatively new area of research that started in the late 1990s by Phillip Kotler and can be very useful for planning and urban design.[1] Since then, there has been a sudden increase in interest in this concept because of the increased competition among places as, in global terms, the geographic barriers collapsed. Globalization interconnected markets, allowed us to carry goods from one place to another, and let people move around easily. And we can't forget things like the formation of the European Union and the fall of the Iron Curtain that opened up Eastern Europe. From the eyes of a European, suddenly Europe got a lot bigger and the competition to attract investments, tourists, residents, and competent workers increased dramatically.

The global competition between countries, regions, and cities is one of the reasons why people started looking for new techniques to attract these very limited and desired resources. A lot of these places needed to adapt and built new infrastructures to acquire a competitive advantage over the other places. But, soon enough, an infrastructure by itself ceased to be an element to differentiate these places and being an element of competitive advantage. Other elements had to be brought in to attract investors, tourists, and companies. Branding was thought of as being a concept that could bring together all other elements that could help a place to differentiate. That's one reason why the sudden interest in place branding, which started in the nineties and has been growing ever since.

Evidently, in place branding you think about the target markets, the segments, the people you want to attract; and these may be very diverse. What types of investors? What types of tourists. What types of new residents and workers? Are you trying to attract a student population? Young couples or perhaps retirees? These are very different targets with different needs, and you will be dealing with a lot of variables. So, a major element we need to think about when developing a place branding strategy is who are the target segments? What are the elements in your country, region, or city that are relevant to these different targets? This means that, in terms of place branding, we need to know the variables of a place and consider those when setting up a strategy for these different segments.

It is also important to realize that when you develop a city's new infrastructure for tourists, for instance, it is not only going to serve the tourists but the residents also. These infrastructures will be used by the tourists, the investors, the existing and incoming residents, the students, etc.; that is, these infrastructures will also serve different types of segments. So, although there might be a strong relation between brands that are built for tourists and those built for new investors, new entrepreneurs, or new students, we cannot focus on only one segment and we need to understand how to incorporate the different segments.

In the case of the Algarve, that I will be presenting today, I developed and tested a model for place branding thinking particularly about tourists. As you know, tourism is a very global

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Editor's note: the speaker mentioned the book *Marketing Places* by P. Kotler, D. Hayden & I. Rein (New York: Free Press, 1993) and the article "A tentative meta-analysis of the place marketing and place branding literature" by D. Gertner (*Journal of Brand Management* 19, 2011; DOI: 10.1057/bm.2011.13)

and competitive industry. Just in Europe today more than 500 tourism regions are competing among themselves to attract tourists every year. It is a really hard industry, it's also a very important industry for many different countries since traveling became very easy and cheap, particularly in Europe, where the distances are very short and the unified European Union made traveling so much easier. Studies by the World Tourism Organization indicated that, in 2017, close to 13% of the global GDP (Growth Domestic Product) originated in tourism.

Evidently, due to the limitations imposed by the current pandemics, nobody knows how these conditions will play in the future. The pandemic caused the collapse of several economies such as Portugal, Italy, and Spain, as around 15 to 20 percent of their economy depends on tourism. Considering the relevance of this industry and the increasing competition, interest in place branding for tourists is increasing. Politicians and the people in charge of these destinations are now thinking more strategically about how to differentiate their offer and attract the tourists, they started thinking about how to develop place branding strategies for tourism. We called it destination branding; the strategies developed specifically for the tourism industry.

Of course, there is a very naive way to approach destination branding. For instance, in terms of tourism for the Algarve, one could think of building an advertising campaign with a tagline such as "Looking for a sunny beach destination? We have the best beach and the friendliest people in the Mediterranean!" Well, this can be a valid value proposition for a bunch of different destinations in countries such as Turkey, Greece, Spain, Cyprus, Malta, Croatia, etc.

What you thought made your destination unique to attract tourism - the friendly people and nice Mediterranean beaches - does not differentiate your product from all the other ones. So, the region or city doing that is just wasting money. We need to think more strategically and to go further than just advertising basic and simple value propositions that do not differentiate your offer from other destinations.

Where does this take us? It does take us to the need to understand the tourists and even think like them. Who are the tourists? What are they looking for? We know that just like product brands, destination brands can also serve a dual purpose for consumers, it is the same mechanism I was showing through the example of Nike. First, functionality in terms of quality, because I know if I buy a Nike shirt it will last, and its performance will help me in my sports. Secondly, in a symbolic dimension, it can allow me to express who I am, and it makes me feel proud because, by using a Nike shirt, I am showing I am a sportsman.

Destination brands can also be built on that dual purpose. Choosing some specific place can lower my consumption risk because I know what I can expect from the place. Good weather in California, for example, or a cultural offer in London. But, also, I can feel proud of going to a certain well-known destination for my holiday. I feel self-realized and proud when I go back to work and tell my colleagues that I visited Machu Picchu or the Amazon.

When managing destination brands, we need to consider tourism behavior and tourist motivations. What motivates tourists to travel? What are the reasons to travel? Two big motivations make people want to travel and invest their money and time in this activity. The first motivation is breaking the routine: people go from home to take the kids to school to work to pick up the kids to the supermarket to home and so on, day after day, and they need to break this routine. Going on holidays helps to break the routine and to stay mentally and physically healthy. Of course, you can always take a "staycation" but that is not satisfying another important motivational trigger – looking for new experiences. Therefore, when people ask you "What did you do on your holidays?" And you stayed home, typically you say "Oh, I just stayed home… I didn't do anything." So, although staycation allows you to break with the routine since you don't leave your home environment, you are missing the other motivational force - seeking new experiences. People invest time and money to travel so they can experiment with something different from their daily lives.

In this context, destination brands should be managed thinking about satisfying both sets of needs. It has to guarantee that the tourist's daily routine is being broken and that the tourist will enjoy a set of new experiences. Therefore, a destination brand strategy should be developed considering these two angles or motivational forces. Also, we should not forget that traveling is about making an effort and a monetary investment, so the motivational factors need to be strong.

In strategizing a destination brand, we need also to take into consideration that we live in a semiotic society. People consume places and tourist attractions which are embedded with built meaning. Tourist consumes symbols. Let me clarify what I mean by showing you a simple rock, just a normal rock very similar to the ones I have in my garden. Would you spend 10 minutes in a line to see this rock and would you pay US$10 to see it? Probably you will say no. But what if the rock is from the moon? Probably you might change your answer now, and you would be willing to pay US$10 to see the moon rock. But if we look at the rock that was brought from the moon, we would probably be unable to distinguish it from any other rock. The rock only acquires meaning and value when we know its origins, we understand it as a symbol of a great achievement of mankind.

But that implies that the value is not in the object itself but in the label that goes together with the object. It is the label that gives symbolic meaning to the object. The moon rock without a label does not have any value because it does not have any meaning. That is why we can say we live in a semiotic society. We build our reality based on signs that have meaning.

The same rationale applies to tourism, and the case of Bilbao in Spain is a good example. In the early 1980s, the citywas going through a tough period of degradation, social and economic decline, and its population had no pride in their city. To face these problems the local authorities developed a plan to diversify the economy and to make the city attractive to tourists. One of the plan's most important elements was to build a very strong cultural attraction, which they were able to do when they managed to convince the Guggenheim Foundation to lend their brand and to send their collection outside of the United States. The city's strategy included a plan to use the building for Guggenheim's art collection. The museum building itself should be a strong attractor, a symbolic landmark for the city and even the region. They decided to hire Frank Gehry, an architect who was not internationally famous at that time, to create a unique and forward-looking design. Bilbao's Guggenheim Museum exceeded all expectations and became an international attraction, a symbol of the city's revitalization, and a beacon for tourism, creating the conditions for the diversification of the city's economy. It became a local, regional, and international destination in itself: an object full of meaning and full of value; well communicated, well built, and created huge interest with the media. Since then, Bilbao's a revitalized city and has become a pole for tourism in Spain.

Since Bilbao's success, many nations and cities are trying to repeat the same process. Some cities have been successful in following Bilbao's formula, others less so. But destination branding is just that, it is about managing variables, symbols, that give meaning to places. What are the variables that compose the destination brands? How can we build symbolical meaning? How should we communicate those elements?

As a marketer, politician, or the person in charge of the brand or the destination, we need to manage identity, build our product around the expectations of consumers, and be able to control the variables of our offer. In terms of destination brands, what kind of variables are we talking about?

That's what I want to show you by discussing a model I developed for the Algarve, a famous beach destination in the south of Portugal. Because around 40% of tourists in the Algarve comes from Britain, we wanted to understand what made them chose the Algarve? What was the image of the Algarve? How did the British build that image? To get answers we interviewed British citizens visiting the Algarve and Costa del Sol, a region in southern Spain that is very similar to and competes with the Algarve. We also interviewed British back home in Britain. From these three different samples, we created a model and started to realize that they were building an image of the Algarve based on variables that could be grouped into nine dimensions. All of these dimensions, composed of several variables, impacted the image and the destination brand.

Dimension 1: Development

The first dimension to emerge was development. Tourists expected the destination to help them to break their routine, offer new experiences, but also cater to other needs. They expected to find hotels, resorts, restaurants, and bars, but also cultural offers, rural areas, and other elements specific to the Algarve. They expected to see a balance between all of these elements. They expected a balance between the elements that are very specific to the location, such as natural and historical elements, but also those that guarantee a comfortable and safe stay such as hotels and resorts.

Specific elements of the Algarve were important to define the Algarve brand. To have a clearer idea about the Algarve brand it was important to contrast the offers from other destinations similar to the Algarve, for instance, Costa del Sol. This region in Spain is different from the Algarve in terms of development because it started to become a popular destination much earlier, in the 1960s, and today it is much more built up. There are many more hotels, marinas, and urban development than in the Algarve, which is a smaller scale, more rural, and authentic. We found that the tourists who preferred the Algarve liked its diversity, the historic elements, and the very peaceful balance between development and the natural landscape and the rural areas. The immediate question here is, do the politicians understand this question and that they need to retrain development to guarantee a true balance with the conservation of rural areas? Do they understand which elements to preserve to maintain Algarve's identity? Also, in terms of development, are you really diversifying the economy or just investing resources in tourism, attracting new hotels, new condominiums, new marinas? A diversified economic sector is fundamental because it contributes positively to tourism. Politicians, planners, and those in charge of the destination brand need to guarantee a balance between development variables.

Dimension 2: Landscape

The second dimension was the landscape. We found out that the British tourists were very attracted to the beaches in the Algarve because visually they reminded them of those

Figure 1: Development Dimension, Variables and Impacts on Image.

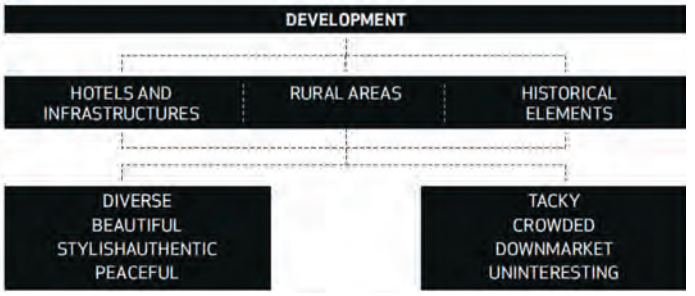


Figure 2: Landscape Dimension, Variables and Impacts on Image.

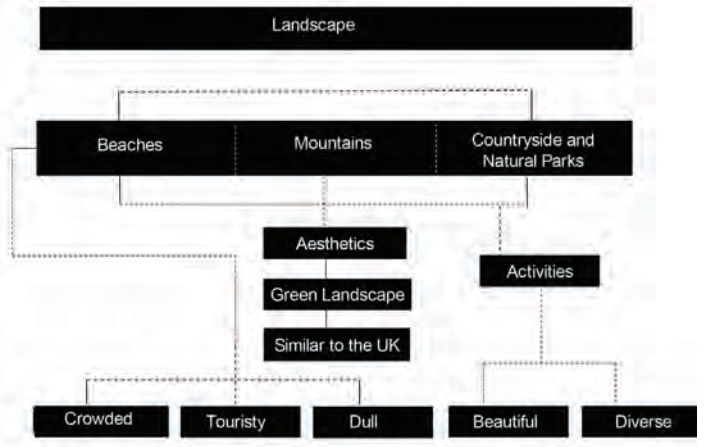
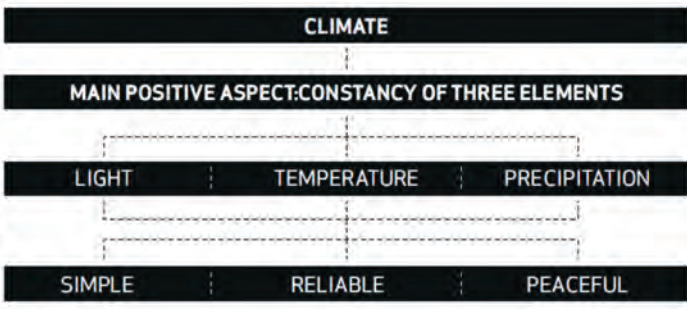


Figure 3: Climate Dimension, Variables and Impacts on Image.



in Cornwall, in southwest England. But more than just the beaches, the Algarve was valorized over the Costa del Sol because of the combination of landscape elements including the topography and the mountains, the rural countryside, the parks, its scattered small-town type of development. The natural elements were truly important to differentiate the Algarve as a destination different from others. So, understanding these landscape and geographical elements that make the place a preferred destination among tourists helps us advise the government that the Algarve should not be communicated as solely a destination with beautiful beaches but one that also had beautiful beaches besides a series of other different attractions. The survey led us to the surprising revelation that the beaches were not the Algarve's only strength. Yes, they were important, but they should be considered together with many other elements.

Dimension 3: Climate

Climate also emerged as an important dimension, and its most important variables were light, precipitation, and temperature. It is a dimension that lowers the risks for tourists, particularly from the UK where, as you know, the weather is unpredictable, rainy, and cold most of the year. In the UK you cannot even plan for a picnic next weekend. Not so in southern Portugal, where the climate is similar to California and it is very easy to forecast the weather. Of course, we cannot change anything about the climate as it's inherent to the destination. What we can do is to communicate what the Algarve offers in terms of climate. It is very, very rare to rain there in the summer months and you have got great weather almost all year round. It is very easy to plan your vacations there and to decide on activities like going to the beach or on a hike. So, even if we cannot change the climate or control the weather, through marketing we can communicate to my target markets how reliable a destination the Algarve is as lowers the risk to the consumers.

Dimension 4: Activities

The fourth important dimension that our study revealed were the activities. It starts becoming clear how the development, the landscape, and the activities dimensions are interrelated and well balanced. Like I mentioned before, when people go on vacation, they want to break with their routine, they look for new experiences that are provided by certain activities. In this dimension, the three most important variables were the physical activities, such as a sport or going to the beach, social activities, and sightseeing of cultural and natural attractions. Sightseeing was also very important as the following statement assures: "Yes, I'm going to the Algarve, but I don't want to spend a whole week going to the beach, I want to do more. I want to see other things." Looking in detail at these other things, you

see the relevance of the natural landscape, the countryside, the orange groves, and the historic elements. But the majority of these consumers also want to go to restaurants, cafes, bars, and places where there are other people; they don't want to go to a bar or an empty restaurant. They are looking for other people to socialize with while on holiday. If there is nobody there, it's not very fun, so what's the point?

A point to stress in the category of activities is the relevance of their diversity and to consider that normally people do not travel alone. People travel in a group which normally is the family that includes individuals of different ages, from children to older parents. So, in terms of activities, the destination has to satisfy all of these individual needs. And group satisfaction is achieved by satisfying the needs of different individuals. In tourism strategy planning the destinations have to involve several types of local entrepreneurs to make sure that there are offers that target all of these individuals and different types of age groups that are traveling together.

Dimension 5: Other Tourists

The notion that tourism is a social activity takes us to another dimension, the dimension of Other Tourists. We need to consider people at the destination as another specific element of consumption. Meaning, if I go to a restaurant, I expect other people to be there both tourists and locals. And it was interesting to see the evaluation that tourists make of other tourists. Because the British tourists participating in our study evaluated other British tourists as kind of boring. Why? Because they were there for new experiences. If you go to a place in the Algarve and everybody is British, the novel element is not there. In terms of social activities, the British were motivated to engage in social activities with people from other nationalities, including the Portuguese. We asked them how did they feel about all these other nationalities that are consuming the destination, and they answered they liked it because it helps them experience new cultures, new routines. They felt it was a plus for the destination. Here we see how we should manage the destination, taking into account that tourists are not only consumers, but they are an integral part of the destination, they are assets of the destination. On the other hand, the British nationals who had second homes in the Algarve and spent more time there liked seeing other British because it gave them a stronger sense of safety, a safer social network when needed.

However, if tourists only see other tourists from a variety of nationalities, they perceive as if everything was built for tourists. The place becomes too touristy and people might think it is not legitimate and even that the place is not of such a good quality and not a good value after all. But if the tourists see a lot of Portuguese, even if they are tourists

Figure 4: Activities Dimension, Variables and Impacts on Image.

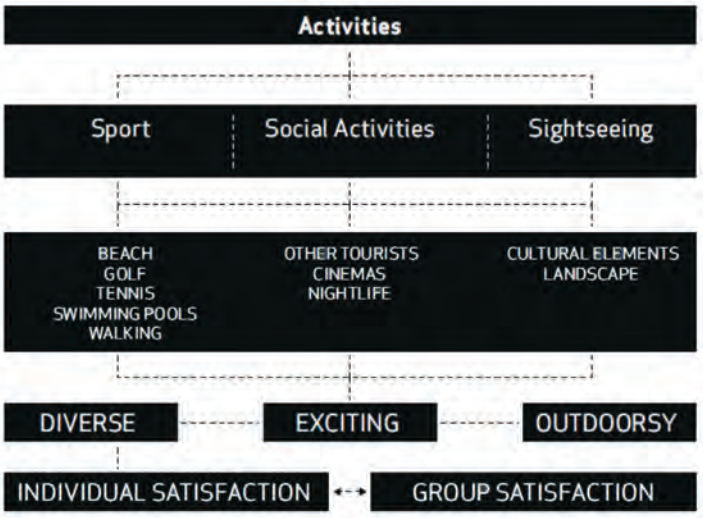


Figure 5: Other Tourists Dimension, Variables and Impacts on Image.

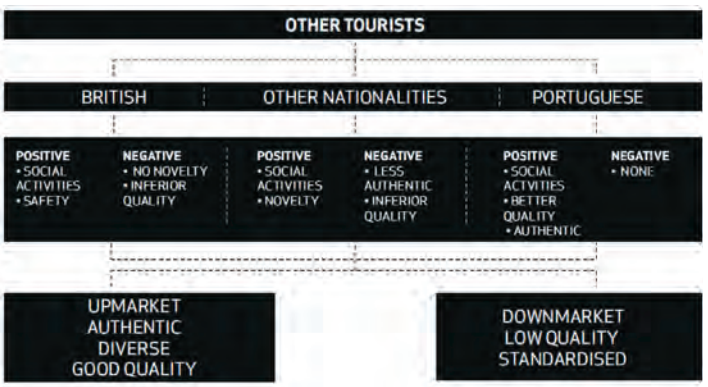
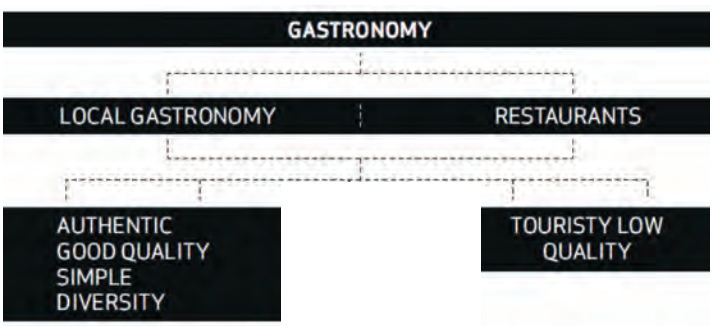


Figure 6: Gastronomy Dimension, Variables and Impacts on Image.



themselves, eating at a specific restaurant, visiting a specific park or museum, or going to a beach, they feel safer as it lowers their risk as consumers. They feel like they made a good deal because, if locals go to that place, it's because they really know what they are doing. It is really interesting to regard tourists as not only the target market but as part of the brand, and that has implications in terms of how we are managing the place brand. We should not focus on just one market, but we should think about diversification, and how to diversify the segments within the different markets. Yes, the Algarve needs the British, but also the Swedish, Germans, Americans, and Brazilians, but the destination needs to be careful to balance well the number of tourists with locals so that things keep their authenticity, natural diversity, and quality.

The diversification of tourists enriches the experience of all nationalities with the brand. Also, it is an important issue for marketing communications. If you mass market a specific destination on the metro, on the double-deckers, on TV, and radio, in London, for instance, the target population, the British, may think: "Well, everybody is seeing this ad on TV, and probably all Brits are going there. And in that case, I don't want to go where everybody else is going." In this sense, mass marketing might not be that efficient for a destination. Marketing needs to be much more focused identifying targets and on how and where to advertise, instead of investing in mass marketing.

Dimension 6: Gastronomy

The next important dimension is gastronomy which is, in fact, an activity, but due to its importance, it emerged as a dimension of its own. Besides activities such as sports, going to the beach, sightseeing, or social activities in general, going to bars, restaurants, and experiencing the local cuisine was so important that we isolated them in a gastronomy dimension. The local gastronomy is a cultural element and some dishes or wines may even become symbols representing a place, making it more special, and becoming part of the place brand. The paella is a great example, as it is a dish that we automatically identify with the cities along the Spanish Mediterranean coast, and all tourists that go there want to experience "the legitimate paella". For the British, particularly, experiencing culture through gastronomy emerged as an important element, perhaps because the traditional British cuisine is a bit dull. The restaurants at the destination have to be able to cater to the different targets of tourists. You have to cater to less adventurous people and for those that are more adventurous and want to experience culture through the local gastronomy. And let's not forget that the different age segments also have to be catered to in restaurants and other gastronomic activities; you need environments and menus for adults, teenagers, and kids.

Gastronomy was an important category to differentiate the Algarve from other destinations. The Algarve Tourism Board went into a lot of effort to work with local entrepreneurs and training staff to increase and diversify of menus. Culinary schools were opened to train staff in serving different tourist groups and age segments, and in training cooks in the right dishes with a direct link to the regional and local culture that could differentiate the Algarve from other destinations.

Dimension 7: Local People

And here you go back to that other important dimension in defining the brand, which is local people, one of the most important variables. Local people are also one of the reasons why some experts say that places cannot be branded as a product or a service because people cannot be controlled. Obviously, nobody wants to control people, in their diversity or freedom to be, but when tourists interact with a local typically, he or she is providing a service --in a museum, at a restaurant, at a hotel, etc. So, when providing a service people are supposedly following guidelines set up by the managers or company owners. Not only staff has to be trained, but the entrepreneurs themselves have to be educated on what to demand from their staff and how to maintain their level of satisfaction. Several incentives were provided for the entrepreneurs to provide better training to the tourism industry employees.

When we compared how the British regarded the local population of the Algarve against that of Spain's Costa del Sol an interesting difference emerged. The British said they love the Portuguese and specifically the people in the Algarve because they are family-oriented, helpful, friendly, and they seem to care about you. As we wanted to understand why they thought so we investigated how the food business, bars, restaurants operated in the Algarve and the Costa del Sol. We realized that in the Costa del Sol, like in the United States, the staff in the restaurants and bars work on a variable income. The more they sell and the more tables they serve, the more they make.

But there is one thing that the US has that Europe does not have, which is the tip: we don't tip. And since the majority of European tourists do not tip, the only strategy for employees to increase their income is to rotate tables. That's what seems more typical in the Costa del Sol where there is pressure for tourists to consume more and, if they are not consuming at the restaurant, the servers get grumpier in their wish that other tourists can occupy the table and consume. But in the Algarve, as in the rest of Portugal, this pressure does not exist because employees earn a fixed income, typically there's no variable income. The employee does not feel the need to press the tourists to consume. They are left alone to calmly have just a coffee, stay there, and relax. In the Algarve, tourists do not feel

the pressure to consume and the British really appreciate that and valorize being in a much more relaxed environment than in Spain when consuming products or going to restaurants.

Another interesting differential is probably due to a bigger turnover of staff in the Costa del Sol. It seems that there is a lower turnover of staff in Portugal and that was important for loyal consumers. Repeated visitors were recognized by the staff and that has a positive impact as it made people feel welcomed there. The British respondents said things like: "We love the Algarve. We have been going there for ten years. We started coming when our kids were very young, and now they are teenagers. People recognize us and when they see us, they ask about our children, so we feel welcome, we feel like we are part of something here." That was interesting because it increases brand loyalty. Interestingly, local people were such an important aspect of the image of the Algarve, an aspect that can be directly supported by the Algarve authority and managers, hotels, and local businesses if, for example, high turnover of employees is avoided. Guaranteeing the same staff over the years, which is good for both the businesses and the destination brand.

Dimension 8: Language

Another important dimension to emerge was language. British tourists said they like being in a place where they will be understood. Language makes consumption easier. However, they also understand that in places such as the Costa del Sol, Turkey, or elsewhere, English is spoken to cater to tourism; it is fabricated for tourists and this gives a sense of a tourism-oriented place.

How can we use the proficiency of language in a destination such as the Algarve be used as an advantage in attracting tourists? By telling them that in that region, as in the whole of Portugal, people don't speak English because of and for tourism. They do it because after joining the European Union, Portugal understood the importance of making English as part of the school curriculum, from elementary to high school. That's twelve years of mandatory English for all students in Portugal! This realization changed how British tourists perceived the Algarve from a destination where they only speak limited "tourist" English, to a place where people speak English because they are educated to do so to in order to communicate across Europe.

Dimension 9: Distance

Finally, the last dimension I want to discuss is distance, since the time and cost of traveling should be taken into account when developing a branding strategy. This means, for instance, to guarantee that there are direct flights that make it easy to get to the Algarve. From London, it is only a two-hour direct flight, but

Figure 7: Local People Dimension, Variables and Impacts on Image.

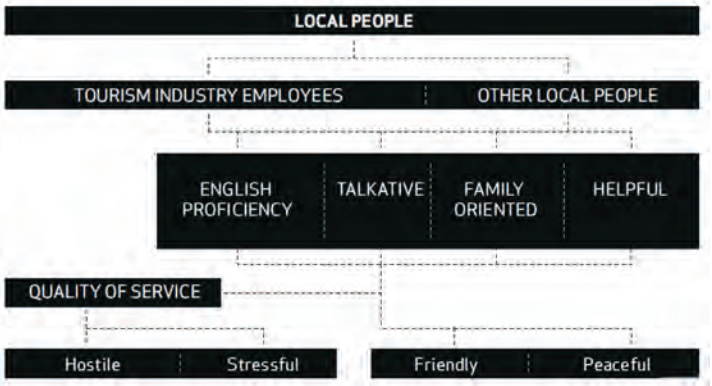


Figure 8: Language Dimension, Variables and Impacts on Image.

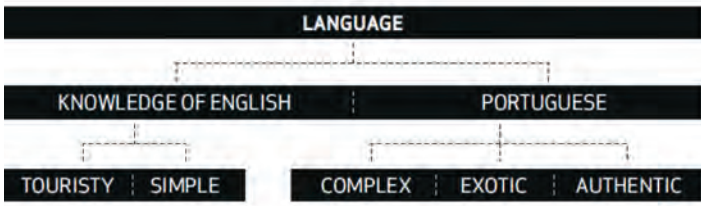
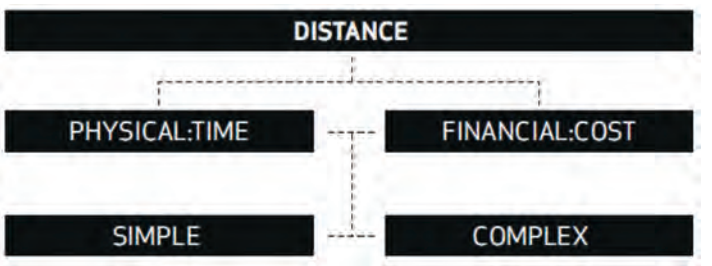


Figure 9: Distance Dimension, Variables and Impacts on Image.



from the United States, it takes much longer. From California, for instance, we are talking about at least two connections and probably around 16 to 18 hours of travel. In such cases, because it involves more complex travel arrangements, more effort, and a much higher investment of time and money, for these target consumers the destination would have to be regarded as unique, much more exotic, and higher in terms of consumption. So, because of the distances and time of travel involved, the element of the destination that we have to communicate with these different groups need to be different.

Dimensions of the Algarve Brand

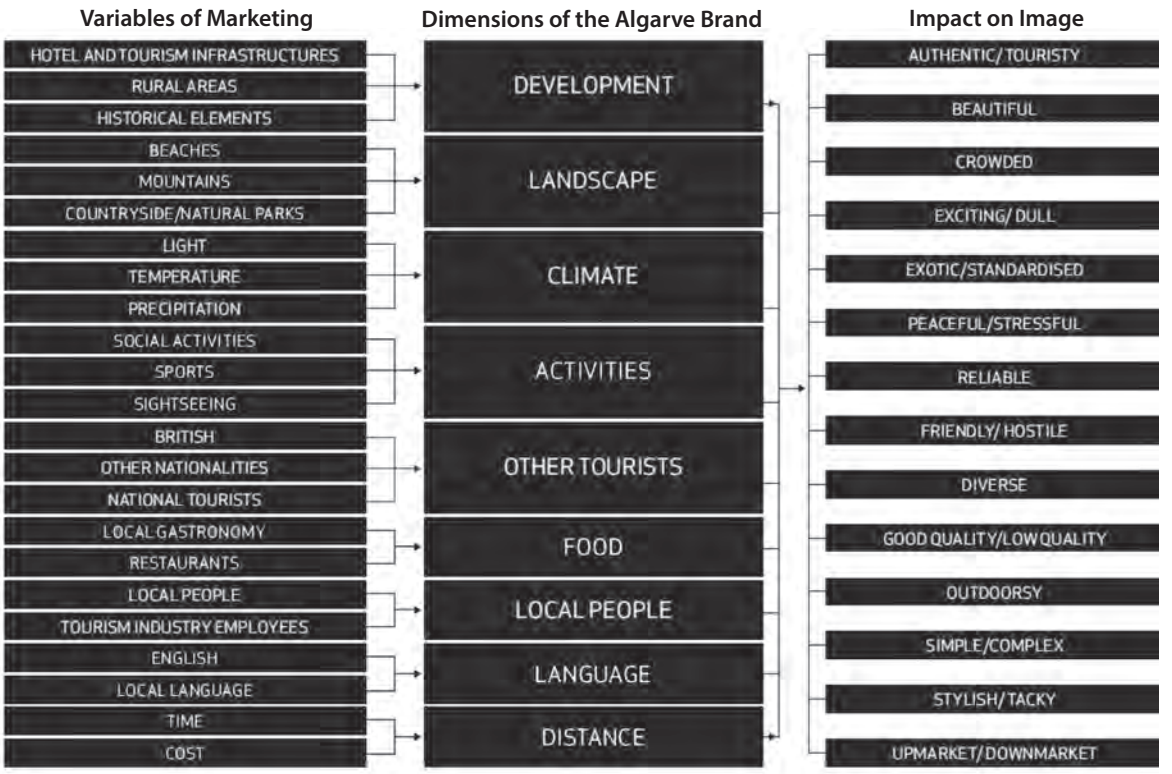
When we think about destination brands and the complexity of attracting tourism, we realize that all of the dimensions we have discussed interact. They cannot be seen in isolation from

each other as all the variables grouped in each dimension interact, and it is the interaction among them that contributes to the image of a destination. These dimensions and variables will make the destination more or less interesting for people to consume. For the people managing the destination, they have to constantly consider and monitor these variables, particularly those that are more relevant in terms of building the image, triggering the consumption of the destination brand. The variables will always need to be managed in terms of products to consume and in terms of communication, which a strategic tool for place brand management. But what also becomes very clear is that a destination is much more than simply communicating its potential, it's also about market management, about controlling the products, about giving meaning to elements, about managing the physical elements and the environment, and so on. It's about building an image, building a story, and communicating it.

Managing a destination brand and building its image is not the sole role of a marketer, but of all society, everybody is involved in the construction of the destination brand. The definition and development of a destination brand should involve citizens, the business community, and politicians at the local, regional, and national levels. Only by involving all of these different actors in destination branding, we will be able to build a proposition that makes sense and allows us to target and attract certain segments. The relevance of having an active role in this strategy and building the destination brand is based on one assumption: if we don't make a plan together with the different stakeholders and we don't work on communicating the value of the destination, others will do it for you. In tourism, if the city or the place doesn't take control of that process, you can be sure that tour operators and hotel chains in different countries will do it, and they will build an image of our destination to suit themselves, serve their interests, serve the consumers they target, and we will have no control of that.

So, to choose what type of destination brand to build, what type of place image you want to build, and have some type of control over them, the city needs to set up a vision and a value proposition of what it wants. It has to define goals and objectives, which are dependent, of course, on the local conditions and the will of the citizens and the business community. In the process of building your brand, all of these different actors need to participate effectively, from the start and be part of the implementation and management. If you don't do that you will not be organizing a communications system, and you will only be doing advertising. And if you're only doing advertising without a product backing up your value proposition, it's not going to work. Because then the reality and the promises that

Figure 10: All dimensions and variables impacting the image of Algarve as a destination brand.



you are offering in your advertising campaign will not meet the consumers' expectations and your place branding will fail. If you don't get the product right and you don't have the support of the business sector and the community at large, you will fail.

Final Remarks: Strategic Management

To conclude, destination branding is the process of building an image based on the various dimensions and elements that the place has to offer. This on-going process depends on the support and involvement of various stakeholders, most importantly of politicians, the business sector, and the community. The process of building value to the place and its dimension also involves making them meaningful and relevant, and that also goes to the local community who need to understand the value of their place and what makes it unique and attractive. In this process, we need to help local people be proud of their culture and what their place has to offer.

On the other hand, the local community needs to understand the benefits of this process and its potential role. Destination branding and place marketing are complex processes which should never be confused with promotion and advertising. They are about involving the local entrepreneurs and the community together around the value of the elements inherent to that place, which can help it become sustainable in a globalized world with an increasing tourist economy.

• • •

Figure 11 : Strategic brand management.

CRP International Online Presentations, Spring 2020

Urban Design Down-Under in a Post-COVID World:

Can we learn from New Zealand's Blueprint approach?

Kobus Mentz

Architect and Urban Designer (post-grad JCUD, Oxford);
Director, Urbanismplus; Adjunct Professor in Urban Design, University of Auckland.

Having moved all teaching to online mode in the Spring quarter, Cal Poly's CRP Department promoted a series of four Zoom presentations by international speakers. Kobus Mentz, one of Australasia's most distinguished urban thinkers, closed the series discussing that we need to respond to the pandemic with agility, innovation and efficiency, and that planning and urban design need to be even less reliant on growth and focus more on the local challenges exacerbated by Covid 19.

We face great uncertainty due to Covid-19 and indications are that to survive and prosper, communities will need to respond with agility, innovation, and efficiency.

Many professionals are speculating about the nature of changes to come, without any reliable evidence. Knee-jerk responses include suggestions that cities will no longer densify, that public transport is doomed, and so on. After September 11 many were declaring the death of the tower block, yet in the interim more tower blocks have probably been built than existed before then and the underlying drivers for consolidation and intensification are varied and strong. Even without a vaccine, public transport use is starting to pick up again and some are returning to their former town and city centre locations, partially in support of local retail businesses, and partially due to their preference for the interpersonal social and business interactions. Other businesses, however, are decentralising due to a positive on-line experience during lockdown and many shops are abandoned.

It is just too early to tell where the balance will settle. Many premature solutions are on offer and some are seizing the moment (don't waste a good crisis) to further their pre-existing agendas without proper analysis of where we are heading. Some argue for higher environmental standards to progress climate change responses, while others want lower environmental standards to progress employment opportunities, or to enable faster construction outcomes.

This direct tension between the economy and the environment was also starkly illustrated during lockdowns around the world. As economies falter and unemployment grows, transport emissions fall, birdsong volumes increase and emboldened wildlife venture into urban areas. This dilemma is succinctly captured in George Monbiot words: "…Capitalism collapses without growth, yet perpetual growth on a finite planet leads inexorably to environmental calamity".[1]

The social benefits of growth also have their limits. Michael Green's work on Social Progress Indicators illustrates that while countries' social wellbeing initially improves as they get wealthier, the benefits flatten out after a while.[2] First World health issues such as obesity kick in and, presumably, down-stream benefits diminish as the rich get super rich. Given these

Editor's note: This essay has been adapted for FOCUS by Kobus Mentz from his presentation to Cal Poly on May 28, 2020. The original video is available at https://youtu.be/6Z7iM_9efk8

Editor's note: See Kobus Mentz's work at www.urbanismplus.com

[1] George Monbiot is a British writer and environmental and political activist. See his books and writings at: www.monbiot.com

[2] The Social Progress Index (SPI) uses fifty-four indicators in the areas of basic human needs, foundations of well-being, and opportunity to progress to calculate how much countries provide for the social and environmental needs of their citizens. it is published by the Social Progress Imperative, an US-based non-profit.

mixed blessings and predictions of declining growth, it follows that we need to strengthen our expertise in approaches that are less reliant on growth, and focus on those local challenges exacerbated by Covid 19 that we can be certain of such as:

- A weakened economy will result in fewer resources.
- Increased unemployment will induce greater social stress.
- The vitality of city and town centres will be at risk.
- The capacity to address environmental and climate change needs will be weakened.

Local leadership

While central governments pull the big levers, Local Authorities (LAs) are best suited to lead on the ground. To be effective they will need to move quickly to develop a connected-up big picture response and take their communities with them. While initiatives that address immediate needs should be fast-tracked, a piecemeal response in the absence of a bigger plan should be avoided as community support will deteriorate over time.

The challenges vary with the scale of the LA. Typically large metropolitan cities have to contend with large councils as well as a number of stand-alone agencies (transport, economic development, urban regeneration etc.). Significant effort is required to ensure day to day integration between these to counter the tension between their singular objectives. However good integration can occur on multi-agency projects when explicitly set up with that aim from the outset.

Ironically, while regional cities, towns and districts, generally have fewer resources, they appear to have a higher propensity to produce integrated outcomes. For a start you can usually fit most of the key discipline leaders in one room. Regional communities, who regularly confront adversity, are often more resilient. They make do with less, are innovative and appreciate the value of working together.

Connecting the big picture with local needs

Down-under our new-found Covid-19 challenge is compounded by disillusionment with the complexities of our planning and regulatory systems, and the absence of big-picture strategies with a spatial dimension. More innovative LAs have resorted to informal approaches of their own to remedy this vacuum with varying degrees of success. A promising emerging response is the adoption of the so-called Blueprint processes which has been developed in New Zealand and is now used by some cities and districts in Australia.

Created and refined by Urbanismplus the Blueprint is an informal strategy driven by LAs and delivered quickly, usually between 6 and 12 months. It articulates a clear direction that is easily understood and endorsed by the whole community. Its key attributes are that it:

- Aligns district-wide and local responses.
- Connects all council strategies, District Plans, Long Term Plans etc.
- Provides a spatial framework.
- Addresses governance issues.
- Determines a strategic sequence of well-defined actions.

To achieve buy-in and deliverability they are co-produced with council staff, elected members, and stakeholder representatives. External expertise further enriches the outcomes. To achieve durable popular support, the public and local communities are drawn into the creative and prioritisation phases. To ensure real change occurs, the costed priorities and timelines are formally endorsed by the Council.

In New Zealand these essentials are echoed by Clive Morgan (GM Community Growth, Waikato District Council): "It was inspiring to see the way in which our communities came together to tell us their aspirations for their towns. As Council we often find it difficult to engage with our communities, but the Blueprints struck a chord and we were able to hear from large numbers of them. We heard their voice strongly and now have a clear direction and list of initiatives that we know are meaningful to our communities."

A strategic sequence of actions

Often one or two key shortcomings stand in the way of transformative change. These may vary from insufficient land or infrastructure, lack of affordability, reputational issues, the lack of health services, poor quality schools, or transport limitations, and so on. A good strategy identifies and prioritises 'trigger' strategies to unlock these, with the expectation that other supporting initiatives will become more viable.

In New South Wales Australia, the Tamworth Blueprint 100 unambiguously prioritises unlocking infrastructure investment as its 'trigger strategy' which enables other strategies to follow, while other strategies prioritise changing external perceptions of their community, or recognize that better public transport is core for their more deprived communities.

Many well-conceived strategies struggle to deliver on their promise, often because they have not methodically established a strategic sequence of actions and rigorously evaluated the realities of getting them implemented. One approach is to identify those initiatives that best combine being transformative and being deliverable. Deliverability relates to the ability to attract funding, gain political and public

support, achieve consent, and so on. Transformative-ness relates to how impactful, efficient, balanced and enriching an initiative is (Figure 1). The sequence of these attributes matter, with impactful weighted highest.

A methodical form of prioritisation occurs when these criteria are combined as illustrated in Figure 2, where initiatives 'A' and 'B' will make a big difference while having a good chance of being implemented. Initiatives 'G' and 'H' should be abandoned, as should 'C' and 'D' unless they are of symbolic value or provide a quick win to get momentum going. Initiatives like 'F' could be game-changers but will need supporting initiatives such as 'E' to help make them more deliverable.

The success rate of any strategy can be considerably enhanced by such a dual criteria approach as witnessed by Liam Hodgetts, former General Manager of Strategy at New Plymouth District Council in New Zealand[3]: "After a few years we are halfway through implementing our Blueprint's eight cornerstone strategies and plans, including District Plan changes, the Regional Economic Development Strategy and our CBD revitalisation programme. The Taranaki Traverse project has featured in the Crown Infrastructure Partners Covid-19 Stimulus Bids."

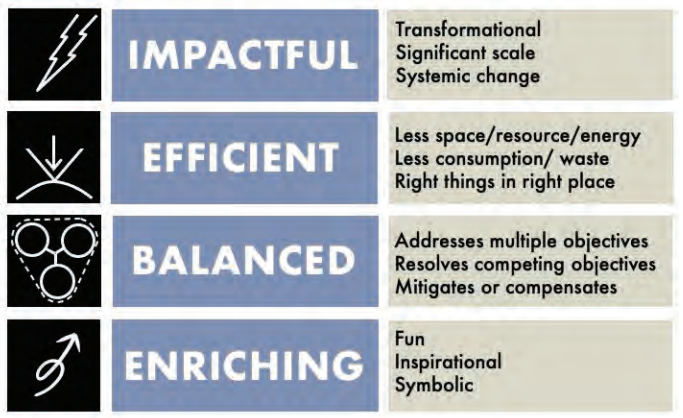
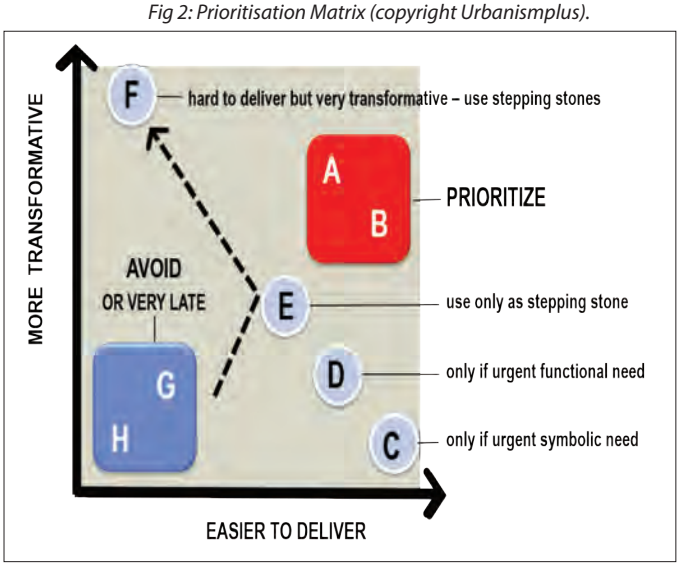


Figure 1: Criteria for Transformative-ness (copyright Urbanismplus).

Fig 2: Prioritisation Matrix (copyright Urbanismplus).



Breadth and depth of issues

An effective strategy must weave together a wide range of issues both at district/city-wide and local level. The aim is to seek out efficiencies, leverage off synergies, resolve tensions and fill any gaps. This multi-dimensional complexity can only be dealt with through extensive mapping and modelling in an iterative process best facilitated in workshop format.

While the process addresses significant complexity, the aim is to achieve an elegant, transformative outcome as explained by Paul Bennett (General Manager, Tamworth Regional Council): "The Tamworth Blueprint 100 has redefined the future of the Tamworth Region, it is transformative in every sense – infrastructure, transport, housing, industry, investment, health, education and heritage – all seamlessly integrated into a clear strategy that has been embraced by our community.

Blueprint has now been adopted as Council's policy to drive our development and growth over the next twenty years." Brent McAlister (General Manager Development, Wellington Shire Council, Victoria) introduced this Blueprint to Australia where it complements the NSW government's recently introduced Local Spatial Plan Statements but with a wider strategic reach.

An additional value of an encompassing strategy as described above is that it strengthens the ability to respond to unexpected opportunities, such as large-scale investment, as well as to shocks such as natural disasters. In New Zealand the Greater Christchurch Urban Development Strategy produced in 2006 proved useful after the 2011 earthquake when the region required a major reset. Some LAs with existing Blueprints report similar benefits in their responses to Covid-19.

Covid-19 related responses

A heightened response will be required to social and local employment issues, the survival of our town and city centres and to ensure environmental and climate change challenges receive attention. A grave risk of the financial and associated social crisis is that it detracts from global environmental issues,

[3] Now Chief Planner, Wellington City Council.

[4] See the author's article "Urban Economics by Design: Thinking from Down Under" in FOCUS 14, 2017 at: https://digitalcommons.calpoly.edu/focus/vol14/iss1/16/

such as the loss of biodiversity, species extinction and climate change. Beyond good environmental practices, which are now well understood, professionals will be challenged with seeking win-win outcomes wherever possible and tasked with ensuring environmental issues remain on the agenda.

While the availability of clean energy is a matter for central government, local initiatives can significantly determine carbon production. Any measures that reduce travel, especially car use, and consumption will help. The value of an integrated approach as described above should not be underestimated. By essentially "putting the right stuff in the right place".[4] The early origination of North West Town in Waitakere determined that the integrated transport, land use, and infrastructure planning approach would save 7.5 million vehicle km travelled per year, reduce vehicle operating costs by $2.25 million and avoid 3,375 tonnes of C02 from vehicle emissions.

The Blueprint's transformative-ness criteria (especially impact, efficiency, and balance) will serve as a helpful guide in this regard (see Figure 1 above).

New focus on social stress

With increased poverty there will be a strong focus on the basic needs at the bottom of Maslow's pyramid of the hierarchy of needs (Figure 3). More aspirational well-being and elevated self-actualisation initiatives may be given a lower priority. Fundamentals such as housing, safety, and access to education, health and employment will be key. We will need, more than ever, to understand the social consequences of different planning and design approaches. Many towns and cities are unwittingly making their poor poorer, simply due to a lack of understanding of the significance of the proximity of fundamental resources (health, education, and jobs) to their citizens.

In addition, social issues often lose out when outcomes are negotiated with other disciplines because they are difficult to represent graphically when compared to maps that depict the mix of uses, transport networks, and areas of high ecological value. While the distribution of community facilities and how they are performing is relatively easy to represent, the non-physical elements such as 'ownership, recognition, opportunity etc.' are more difficult, they are judgments that need to be informed by local knowledge.

Figure 4 depicts the social attributes of a local community or centre, the rings represent the scale of effect (national, regional, district or local). For instance, the reach of the New Zealand town Ngaruawahia's community facilities may be localised, while its cultural relevance is national as it is the seat of the Maori King. The darker shading represents the current condition, whereas the lighter shade represents the future potential. The diagrams are informed by detailed written appraisals.

When the social attributes are depicted as a network, as in Figure 5, the social dimension will be on an equal footing

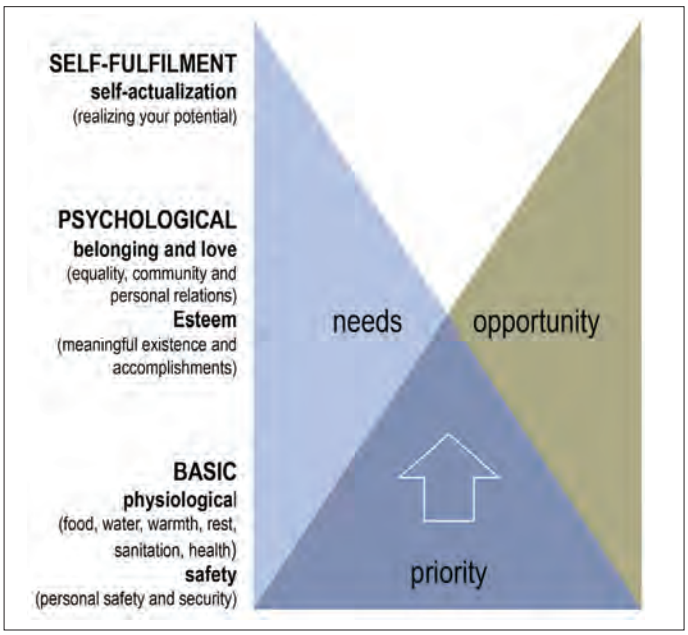
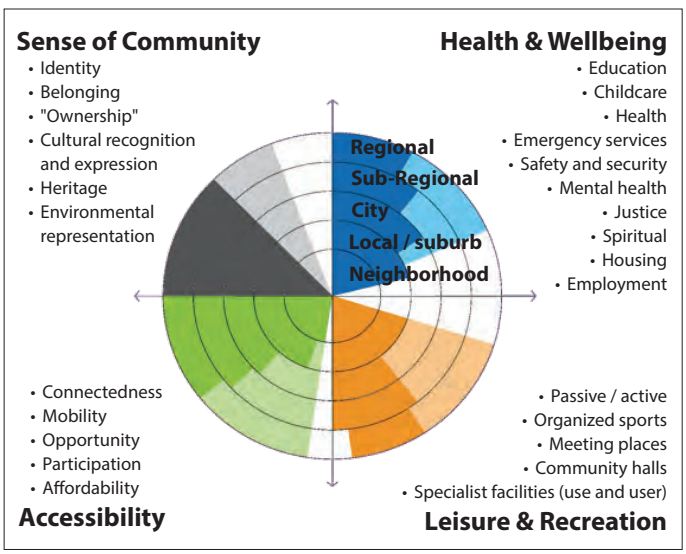


Figure 3: Author's diagram of basic human needs.

Figure 4: Social attributes of a local community or centre. (copyright Urbanismplus).



[4] See the author's article "Urban Economics by Design: Thinking from Down Under" in FOCUS 14, 2017 at: https://digitalcommons.calpoly.edu/focus/vol14/iss1/16/

with other disciplines. Areas of synergy and tension can be identified and resolved. Deficiencies can be addressed, such as where public realm improvements are needed. Links between centres that offer different attributes can be strengthened so these attributes can be shared more readily, and resources are not duplicated.

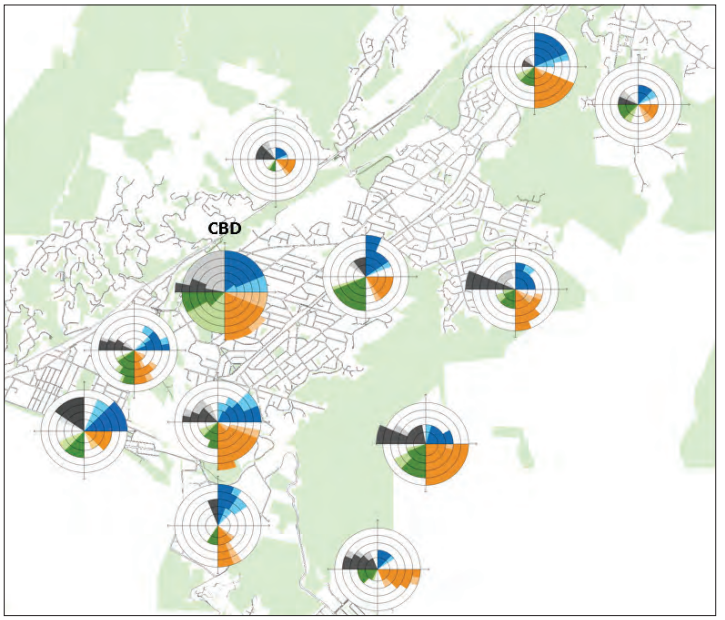


Figure 5: The social network depicting different current and potential future local attributes (copyright Urbanismplus).

Mobilizing local energy and innovation

While a top-down framework is necessary for a cohesive approach, innovation and energy are to be often found at local level. With diminished resources LAs need to reset their relationships with local communities, entities, and entrepreneurs. One Blueprint outcome is an agreement to devolve more decision-making to local boards who, based on a good business-case, get to take over selected projects. In other instances, the approach has been to leverage off the work done by not-for-profit entities whose objectives are in accord with the LA's policies. The assumption is that if people in the community are offering up their own time to do things, they are probably serving legitimate needs in that community. The purpose is for LAs to assist (not take over) by applying a range of leverage techniques as described in Figure 6. Little or no capex is involved.

Workshop-based sessions with not-for-profit entities have delivered significant leverage outcomes, ranging from biodiversity, youth, cultural and business support initiatives. In Lismore (NSW) the local economy and suppliers are now several million dollars wealthier by benefitting from the regional hospitals and universities annual spend of over $20 million which traditionally mostly leaked to Sydney. Council enabled the process and provided IT support for a website. Similar opportunities must abound around New Zealand.

Local employment initiatives

While the government is responding to Covid-19's employment impacts at a national level, there is much that can be done at

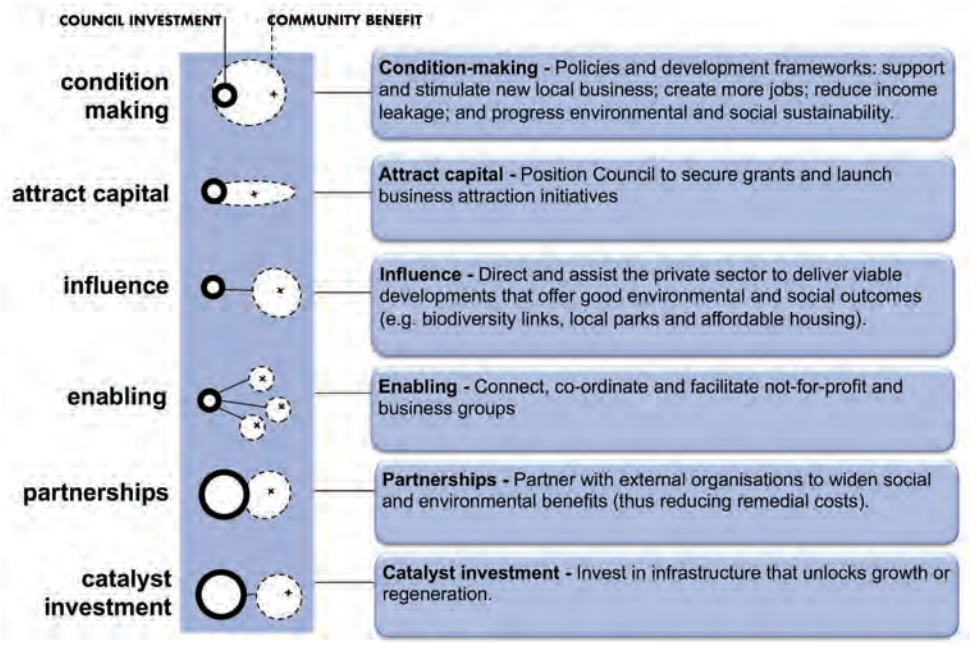


Figure 6: Leverage techniques (copyright Urbanismplus).

a local level. A proactive approach toward business attraction initiatives, removing regulatory barriers, providing incentives, and public realm improvements can all play a role towards:

- Retaining wealth where it is leaking to elsewhere.
- Attracting new businesses.
- Enabling local businesses to function more efficiently.

Having an aligned approach to job and wealth creation is critical. Economic development strategies often lack a spatial dimension, and urban planning and urban design often lack the operational strategies to back the intent. An aligned approach by Dunedin City Council enable their Warehouse Precinct which attracted some $52m in private investment on the back of just $1.1m council investment. Historic buildings were saved, and new jobs created.

Town and city centres

A good centres strategy will identify the strategic emphasis specific to each of its centres, as indicated in Figure 7. For some, Town Centre Regeneration is the priority. Here the competitive threats of online shopping, shopping malls and large format outlets are now being compounded by the effects of Covid-19. Every tool available will be required to ensure these centres, which are often at the heart of their communities, to survive and prosper. An obvious start is to target missing retail anchors such as department stores and other specialty shops. Improving transport links will widen the effective catchment.

The strategic location of markets, events and new community facilities such as libraries, arts and recreation centres so they strengthen the cores of town and city centres will continue to be critical. The arts should also be considered as an economic driver. Remember that an attractive public realm can serve as a destination and attractor in its own right, and increasing housing in the town centre will bring activity and improve perceptions of safety.

Conclusion

Every community is affected differently and will have more challenges ahead, yet to be navigated. Those communities that apply their resources and skills with agility, innovation and effectiveness may yet, despite this crisis, leave a positive legacy for their people, and for nature.

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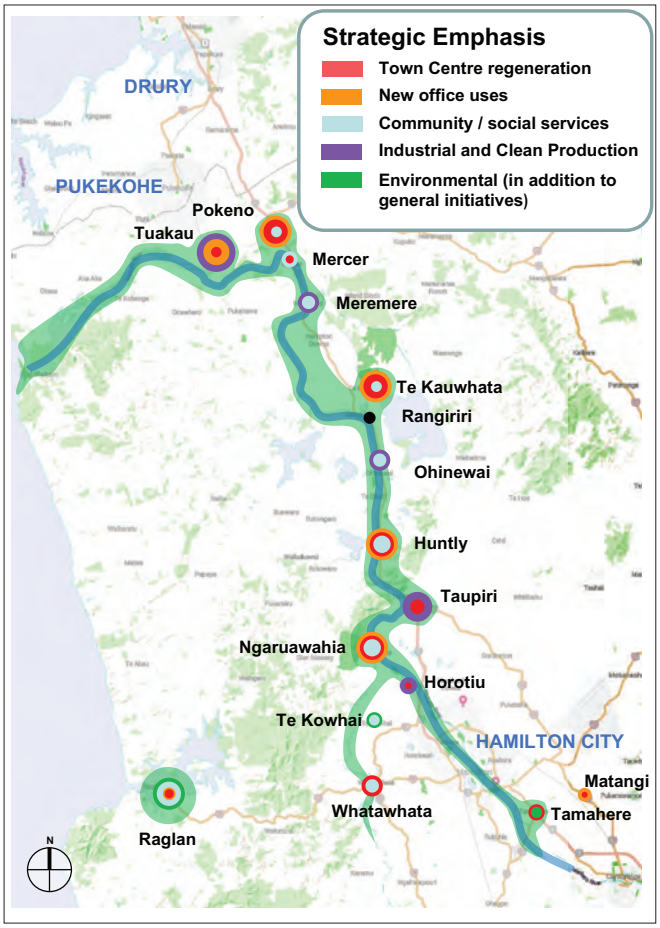

Figure 7: A district-wide centres strategy with different strategic emphasis for each centre.

FOCUS 17

Blind-Reviewed

The Public Life of University Campus Open Spaces:
Linking location characteristics to individual, social and academic activities.

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The quality of university campuses open spaces and their potential in supporting a range of social and individual behaviors may have a significant impact on student satisfaction and academic success. In this article, Patel and Hajrasouliha discuss the results of their study of four spaces in Cal Poly's campus through several behavioral methods of analysis to assess several of their physical characteristics, types and intensity of use, and their reflection in campus life.

The design of multifunctional outdoor spaces of university campuses is an aspect of campus planning which remains, to a certain degree, uncharted. However, we believe the academic and non-academic uses of campus outdoor spaces may gain more attention in the post COVID19 era. After all, the likelihood of viral infection indoors is higher than outdoors. This article analyzes how students utilize different outdoor spaces on campus, and the effectiveness of those spaces to support a range of individual, social and academic behaviors. We observed students' behaviors in four main campus open spaces of California Polytechnic University, San Luis Obispo, and surveyed students about their preferences and experiences before the recent pandemic. We hypothesized that location characteristics including accessibility, adaptability, presence of lawn, food, shade, and movable and fixed seating create behavior settings (Barker, 1968) that influence students' use of campus open spaces. We find that the presence of these physical characteristics is linked to both intensity and diversity of students' activities. The observed relationships suggest further research on the typology of campus open spaces, in terms of their form and function as both social and academic spaces.

Introduction

The success of the student body, academically and socially, is dependent on creating an effective learning environment for students that goes beyond the classroom environment. The physical campus environment does matter, and more scholars and universities are looking into campuses as an asset to improve student success and satisfaction with their college life (Hajrasouliha, 2017a, 2017b; Hajrasouliha & Ewing, 2016; Strange & Banning, 2015). In particular, campus outdoor spaces are influencing both the "image" of the campus (Lynch, 1960) and campus social life (Whyte, 1980). Besides, campus planners can create successful outdoor learning environments by investing in the "lost spaces" on campus (Wilson & Hajrasouliha, 2019). Analyzing the relationship between student behavior, and the environmental characteristics of campus outdoor spaces is an essential step for evidenced-based design recommendations.

This research draws inspiration from William H. Whyte's documentary film and book "The Social Life of Small Urban Spaces." As he analyzes the effective and ineffective plazas and public spaces across the United States, he starts a dialogue around human behavior and public spaces. Whyte (1980) shows how basic tools of observation and interviews allow for learning substantial information about the human relationship with public spaces. Following his reasoning and methodology, this project uses observational methods to link student activities to environmental characteristics of campus spaces. Going beyond measuring the objective environment, we have also surveyed students' preferences and experiences of the campus environment. Studying both objective and perceived campus environments allow researchers/planners to gain a more accurate understanding of how the campus environment operates (Hajrasouliha, 2019). It is hoped that this study adds to the discussion of higher education and campus design.

Creating Location Characteristics

In "The Social Life of Small Urban Spaces," Whyte (1980) identifies key factors, ranging from physical attributes to natural elements that contribute to active public spaces. Similarly,

Note: This article resulted from Meha Patel's senior project at Cal Poly under the supervision of Dr. Amir Hajrasouliha. The full report can be retrieved from https://digitalcommons.calpoly.edu/do/search/?q=Meha%20Patel&start=0&context=889265&facet=

a well-designed campus outdoor space can be defined as a place that enriches students' college life. Through a literature review, we list the location characteristics that potentially impact students' experience and activities on campus open spaces. These characteristics form "behavior settings" (Barker, 1968) that explain the influence of the physical environment on students' behavior. We identified 7 characteristics.

Moveable Seating

According to Whyte (1980), sitting space has the capacity to choreograph public life. An outdoor space can provide sitting in the form of moveable or fixed chairs. Whyte (1980) emphasizes the idea of letting users practice their autonomy by rearranging, changing, or removing movable chairs to fit their needs. Providing seating flexibility allows different types of learning and socializing opportunities for students. Rearranging chairs let the students use the space alone, in pairs, or in a group (Kollie, 2015).

A desired quality in a public space is access to various options and the freedom to exercise different activities. Furthermore, the perception of choice is even more integral. In reality, people often move a chair only a few inches, but the small act is the intrinsic declaration of autonomy to oneself (Whyte, 1980). When a space deprives users of choice and agency, the users may find themselves uncomfortable to adjust to the existing setting.

Fixed Seating

Fixed seating differs from moveable seating as it conveys a predetermined setting for the space (Strange & Banning, 2015). The arrangement of fixed seating impacts the type of activity. In a group setting, students may require larger tables, possibly with a patio umbrella to protect from the weather. Students studying alone do not need a large table but may still require a chair and table to place their laptops, books, food, and beverages. Informal seating areas such as wide steps, edges of landscaped planters, and low walls can become comfortable places for relaxations. Furthermore, Gibson's theory of affordance suggests certain environmental characteristics are directly related to the actions of the users. Environmental affordances are what it provides the user (Gibson, 1997). The user's perception of the object in the environment presents its function(s). Hence, a set of environmental affordances create a behavior setting for the user and advocate an implicit behavior (Lang 2011).

Access to Food

Whyte (1980) suggests that food is a catalyst for socialization and building community in a public space. Strange and Banning (2015) promote the idea of using coffee shops and food vendors to activate campus open spaces. However, access to food is not possible in all areas of campus. Therefore, the areas with this quality stand out on campus and have the potential to become a campus hub and inspire various activities other than eating.

Ease of Access

The ease of access is an essential condition for most active public spaces. The proximity of space to the main pathways, the visibility to and from the space, and the lack of restrictive qualities such as the absence of ramps contribute to the ease of access. Often, underused outdoor spaces are placed farther away from many buildings, tucked away from the main areas, or are not leveled with the main pathways (Gaines, 1991).

Many students choose to study, socialize, or relax in between classes. They tend to pick spaces that are relatively close to their classes and have the opportunity to see other students and to be seen. Therefore, locating the main public spaces between buildings and areas with high foot traffic activates the space (Strange & Banning, 2015). Accessible outdoor spaces on campus tend to be legible spaces as well. It is common practice in campus design to encourage wayfinding to the main space by features such as signs, or landmarks such as bell towers and public arts.

Adaptability.

A functional outdoor space is adaptable. An outdoor space on university campuses must accommodate a spectrum of student needs. Adaptable spaces allow the users to exercise their agency to facilitate deliberate behavior and require a spatial organization that prioritizes various methods of learning and non-academic activities to take place on a university campus. These places are social gathering spaces that accommodate large groups of individuals interacting informally for academic, social, and personal purposes. Therefore, an adaptable outdoor space must support a wide range of activities simultaneously or sequentially.

A close concept is "open-endedness", coined by Amos Rapoport (Rapoport, 1980). It is about the overall capacity of space to accommodate a wide range of user needs at one time or over time, without any significant modification to its physical attributes (Rapoport 1980). In that sense, it is different from "flexibility" which refers to the quality of a space that accommodates different uses by being easily changed. For example, a few stairs, shaded by a tree and away from the main pathway, but close enough to a campus restaurant is an informal seating during the day for relaxation, at noon it is a seating area to eat lunch, and in the evening it is an informal stage for a group of students to perform dance routines on campus. An outdoor space consisting of multiple such features is an adaptable space at one time and overtime.

Presence of greenery and lawn

A well-maintained lawn is great for socialization as well as relaxation. Generous use of green spaces creates settings for social activities such as intercollegiate sports and games, socialization, and college events. Additionally, the restorative qualities of green spaces help students succeed academically through stress reduction and relaxation (Gaines, 1991; Kaplan, 1992). The incorporation of green spaces contextualizes the campus as relaxing, protective, and healthy (Speake, Edmondson, and Nawaz, 2013; Hipp et al, 2016).

Location and immediate juxtaposition of green spaces with the learning and residential structures are influential in the positive perception of green campus spaces, and ultimately the use of spaces (Speake, Edmonsoon, and Nawaz, 2013; Hajrasouliha, 2019). Additionally, a greater presence of lawn extends the purpose of space as greenery to a blank canvas for multiple activities.

Percentage of shaded area

An active outdoor space is pleasant to be used in most times of the year by protecting from extreme sun, cold, and wind through a variety of sun and shade spots (Kollie, 2015). Shaded areas may provide comfort and a sense of enclosure. Whyte writes, "[under trees] people feel cuddled, protected ––very much as they do under the awning of a street cafe" (Whyte, 1980). Shaded areas are mostly desired during warm and sunny days. A particular importance of shaded areas on campuses is the fact that they allow students to use electronic devices without the glare from the sun.

Tree canopies not only provide shade, but also add aesthetic value to public space and contribute to a sense of place (Speake, Edmonson, & Nawaz, 2013). Spaces with the option of movable or foldable shade structures amplify the agency of the users as they decide whether they want to sit in the sun or seek comfort under shade.

Methodology

Study Areas

Four outdoor spaces were selected for this study on the campus of California Polytechnic State University, San Luis Obispo. These spaces are Dexter Lawn, University Union Plaza, the Edible Garden, and Centennial Green (See Figures 1 to 5). We had three criteria to select these spaces: 1) space is located in the campus core, 2) space is larger than 500 sq ft, and 3) each space is physically different from the other spaces.

Figures 1 to 4 (top to bottom): Dexter Lawn, Edible Garden, Centennial Green and University Union Plaza. (2 to 4 retrieved from https://calpoly.photoshelter.com/galleries)

Measuring Location Characteristics

A rating protocol has been developed to quantify the seven environmental characteristics listed above. Each characteristic can be rated 1 to 5 according to Table 1 (next page).

Location Characteristics Matrix

A location characteristics matrix (Table 2, next page) was developed to rate each location's characteristics and identify the physical components of each space. Each location was evaluated for the 7 location characteristics and rated from 1 to 5.

Measuring Activities and Preferences

Data Collection took place in April of 2019 on Monday, Tuesday, Wednesday, and Thursday. Observations took place for exactly 10 minutes count intervals each hour. The interval started 10 minutes after the hour and lasted for 10 minutes. For example, the 10:00 A.M. interval began at 10:10 A.M. and ended at 10:20 A.M. The observer filled out the Activity Scan Form at the start of the interval and the end of the interval. The average of those was used as the data for that hour. Each location was monitored from 10 AM to 4 PM. Each hour, the observer interviewed one to two subjects using the User Intercept Survey. The minimum requirement for UIS was 6 subjects per day. The maximum surveys required for a day were 12. The locations for the observation were Dexter Lawn, UU Plaza, the Edible Garden, and Centennial Green.

The observations were assessed for the number of people utilizing the outdoor spaces and the activities they are performing as well as to understand 'the how' and 'the why' behind their use of the particular outdoor space. During the in-person observation, an activity scan form was completed to record the activities of people. The activity scan represented a snapshot of the activities during the sampled hours. The attributes recorded through the activity scan included several people (single, pairs, or in groups) and the activities (eating/drinking, socializing, people watching, using electronic devices, studying, or sleeping) of the individuals. The attributes recorded with User Intercept Surveys included the qualitative observations and behavior missed by quantitative data collection. The questions were, "What would you like to improve in this space to make it more comfortable to STUDY?", "What would you like to improve in this space to make it more comfortable to RELAX?", "Which plaza or green space on campus do you prefer? Why?", and "Which activities do you prefer to do at that location?" Users also ranked the cleanliness, ability to study or work, greenery, and the ability to relax in those spaces.

Pedestrian counts were taken for exactly 10 minutes every hour for each installment location. If there was a rush hour for those 10 minutes, it was marked as > 40 pedestrian counts. On any other occasion, the pedestrians were individually counted and recorded.

Results

Activities, perceptions, and preferences in each space are evaluated against the location characteristics to understand the relationship between the campus environment and the students' behavior.

Figure 5: The four study areas in the Cal Poly campus.

Location Characteristic	5	4	3	2	1
Moveable Seating	The movable seating can accommodate more than 21 students at a time.	The movable seating can accommodate 11 to 20 students at a time.	The movable seating can accommodate 5 to 10 students at a time.	The movable seating can accommodate 1 to 4 students at a time.	The space has 0 moveable seating such as detached chairs and tables.
Fixed Seating	The fixed seating can accommodate more than 21 students at a time.	The fixed seating can accommodate 11 to 20 students at a time.	The fixed seating can accommodate 5 to 10 students at a time.	The fixed seating can accommodate 1 to 4 students at a time.	The space has no fixed seating.
Accessibility	Space centrally located and adjacent to a main pathway.	Space centrally located and close to a main pathway.	Space not centrally located, but adjacent to a main pathway. (OR) Space centrally located, but not adjacent to a main pathway.	Space not centrally located but is close to a main pathway.	Space not centrally located and not close to a main pathway.
Access to Food	There are a variety of food options located on the space and are open the entire day.	There are a variety of food options located near the space and are open the entire day.	A variety of food options located near the space and are only open during high activity hours of the day.	There are few food options located near the space and are only open for limited hours of the day.	There are few food options located far from the space and are only open during limited hours of the day.
Adaptability	A variety of furnitures, surfaces (paved, lawn, landscaped, etc), and arrangements that provides a variety of choices to users	---	The space is designed to accommodate few activities.	---	The space is designed to only accommodate one activity.
Presence of Lawn	More than 80% of the space is a well-maintained lawn.	80% - 50% of the space is a well-maintained lawn.	50% - 30% of the space is a well-maintained lawn.	30% - 10% of the space is a well-maintained lawn.	Less than 10% of the space is a well-maintained lawn.
Percentage of Shaded Area	More than 60% of the space is covered in shade.	60% - 50% of the space is covered in shade.	50% - 30% of the space is covered in shade.	30% - 10% of the space is covered in shade.	Less than 10% of the space is covered in shade.

Table 1: Measuring location characteristics.

Figure 6 compares the number of solo users, users in pairs, and users in groups for each location. Dexter Lawn has the highest numbers of pairs and groups, at 44 pairs and 17 groups, respectively. Edible Garden has the lowest number of pairs (4 pairs) and 0 groups. UU Plaza is closest to Dexter Lawn in terms of pairs, at 40 pairs. Centennial Green and UU Plaza have 5 groups and 6 groups, respectively.

Table 3 shows the total percentage of user activity for each of the four study areas. At UU Plaza, 45% of the total users were studying. Dexter Lawn had 26.6% of users studying. In contrast, 48% of users were studying at Centennial Green. Edible Garden had 66% of users studying. Even though UU Plaza has the highest number of users studying, more than half of the total users at Edible Garden and Centennial Green were studying. While Dexter Lawn and UU Plaza, less than half of the total users were studying.

Dexter Lawn has the highest number of users socializing with 44.7% users socializing. At University Union Plaza, 45% of users were socializing. Centennial Green had 33% of users socializing and Edible Garden had 20.5% of users socializing. On the other hand, the University Union Plaza has the highest number of users eating: 53% of users. Dexter Lawn had 28% of users. Centennial Green had 10% of total users eating. Edible Garden had 5% of total users eating food.

Users studying on laptops were counted as being on electronic devices as well as users on their phones. Dexter Lawn has the

Table 2: Location characteristics matrix.

Location Characteristics	Dexter Lawn	UU Plaza	Centennial Green	Edible Garden
Moveable Seating	1	5	1	1
Fixed Seating	1	2	5	3
Accessibility	5	5	3	1
Access to Food	3	5	1	1
Adaptability	5	4	3	2
Presence of Lawn	5	1	4	3
Percentage of Shaded Area	3	4	3	2

highest number of users on electronic devices with 44.7% of total users are on electronic devices. University Union had 47% of users on electronic devices. Centennial Green had 45% of total users on electronic devices. Edible Garden had 56% of total users on electronic devices. It is important to know that some users were using electronic devices to study while others were using their phones to relax and spend time.

Figure 7 showcases the trend in pedestrian counts for each location for the time length. The pedestrian trend examines the ease of access for each space. Dexter Lawn and UU Plaza have high pedestrian activity and also have high numbers of total users which suggest the importance of locating an outdoor space near a main pedestrian pathway. Edible Garden has the lowest pedestrian count which corresponds with the lack of access to

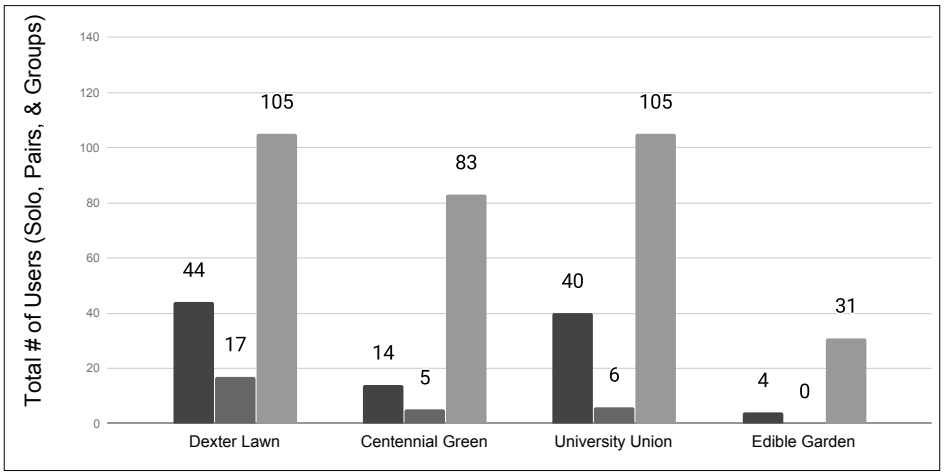


Figure 6: Total Number of solo users, pairs, and groups.

	Dexter Lawn	University Union	Centennial Green	Edible Garden
Studying	26.64%	41.87%	48.41%	66.67%
Socializing	44.67%	44.83%	33.33%	20.51%
Eating	28.28%	53.20%	10.32%	5.13%
On Electronic Device	44.67%	46.80%	45.24%	56.41%
People Watcing	7.79%	2.46%	2.38%	0.00%
Sleeping	8.20%	0.00%	12.70%	0.00%

Table 3: Total percentage of user activity for each location.

that space. Dexter Lawn and UU Plaza have similar patterns, while Centennial Green and Edible Garden are somewhat consistent with each other. UU Plaza has four occurrences with pedestrian counts reaching greater than 40 users. Edible Garden does not reach pedestrian counts greater than 10 users.

Between 6 to 10 users per location were surveyed to record their experiences and preferences. Similar to the Activity Scan results, there is a higher percentage of female users (more than 60% for each location) surveyed. 50% of users prefer to relax and eat at Dexter Lawn. 40% of users prefer to study and socialize. There is an overlap of activities because users preferred to do more than one activity at the location. 75% of users prefer to eat and 62.5% of users preferred to study at UU Plaza. 37.5% of users preferred to socialize and 62.5% of users preferred to relax at UU. 66% of users preferred to study at Centennial Green. 33% of users preferred to relax and 33% of users preferred to eat. None of the surveyed users prefer to socialize at Centennial Green. 100% of users preferred to study at Edible Green. None of the surveyed users prefer to socialize or relax at the Edible Garden.

Most users suggested including more shade, chairs, and tables to improve the ability to study or work. At UU plaza, most users suggest that the space is good for studying, but not for relaxing. To improve relaxation in all spaces, users suggest more trees, shades, and more comfortable seating.

Linking Location Characteristics to Campus Life

Figure 8 illustrates the relationship of location characteristics to student activities at the open spaces on campus. This visualization helps us build an understanding of different types of behavior settings on campus. The results confirm our main hypothesis that location characteristics including accessibility, adaptability, presence of lawn, food, shade, and movable and fixed seating create behavior settings that influence students' use of campus open spaces. Dexter lawn and UU plaza have higher scores in their location characteristics matrix, and have more users throughout the day, with more diverse activities. The Edible Garden with the lowest location characteristic score is the least used space among the four.

Although we cannot conclude a causal relationship between certain environmental characteristics and the specified activities, we observed some associations between the two. For example, as it was expected, access to food is associated with more eating and drinking; and the presence of a lawn is associated with sleeping and laying down. Identifying clear associations for studying and socializing to environmental characteristics is more nuanced than one might expect. We observed a relationship between accessibility and adaptability to both studying and socializing. Access to food is also associated with both activities. Seating, either movable or fixed, and shade are associated with studying.

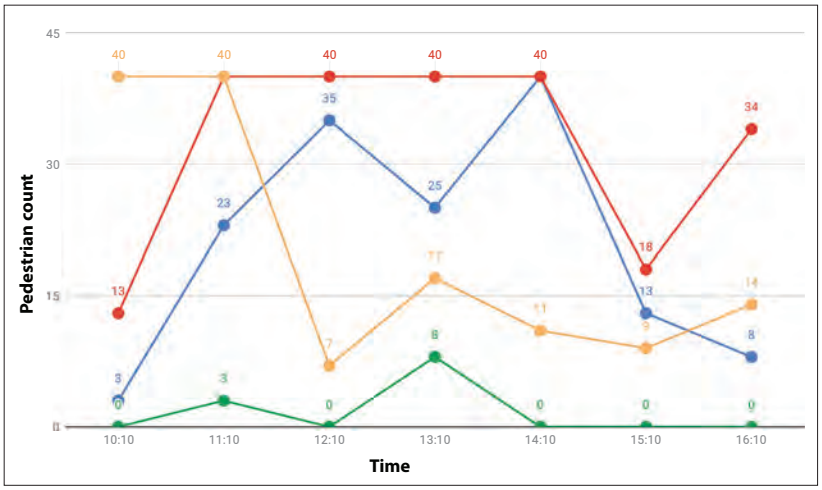


Figure 7: Total pedestrian trends at all study areas.

These four spaces are not exhausting all possible space-types in university campuses. However, their unique physical characteristics and their range of activities, make it possible to conceptualize four distinct space-types: the Central Park, the Plaza, the Courtyard, and the Pocket Park. In the following section, we discuss the characteristics of each space type (Figure 8).

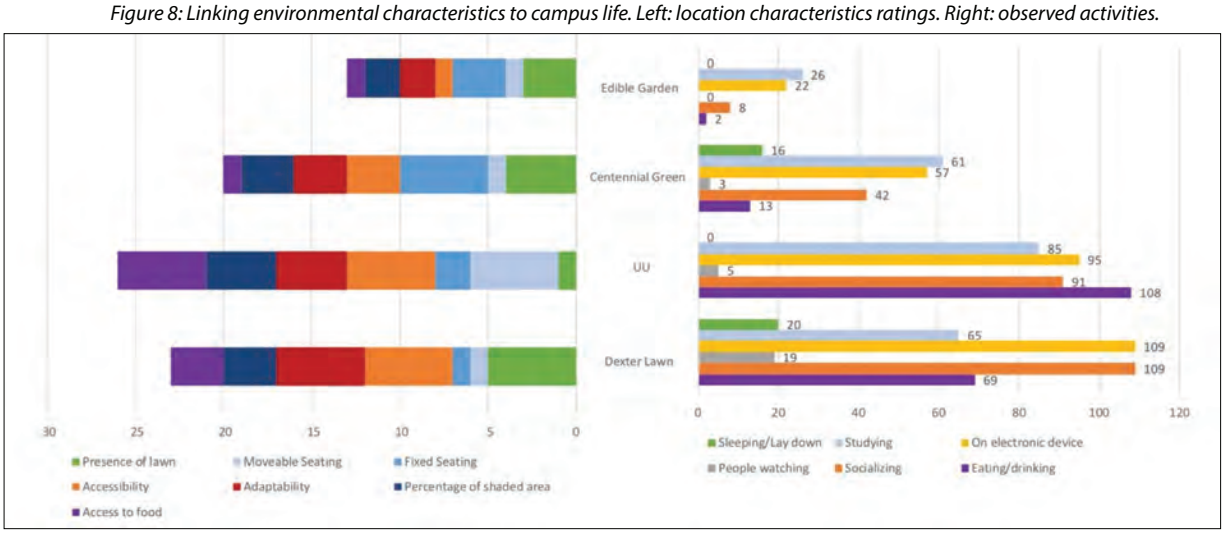
Dexter Lawn: The Central Park

The open space located centrally with a generous lawn hosts a multitude of student activities as well as allows students to hang out and relax. The location characteristics of Dexter Lawn encourage activities with the purpose of creating a gathering space for students. It is centrally located and adjacent to a main pathway to create opportunities for students who have classes in the surrounding buildings to congregate outside for socialization and relaxation.

While several students choose to study at Dexter Lawn, the behavioral setting and physical components of the space do not sustain the activity. Dexter Lawn had 65 out of 244 students (26.6%) studying and 109 out of 244 students (44.7%) socializing. The greater number of users socializing rather than studying indicate the intended use of Dexter Lawn. Furthermore, the higher rating of Dexter Lawn in characteristics such as 'Presence of Lawn' and 'Adaptability' foster social behavior. In contrast to the University Union Plaza, the lack of movable and fixed seating necessitates students to use the space for social learning instead of traditional academic learning. Even though the characteristics of the space does not directly correspond to the educational purpose of a university, the history of socializing, relaxing, and gathering of students at Dexter Lawn implicitly addresses the academic mission through its social learning and restorative attributes.

On any given day, Dexter Lawn has students participating in social discourse. Many students use the space in between classes to hang out with friends, enjoy their lunch, or people

Figure 8: Linking environmental characteristics to campus life. Left: location characteristics ratings. Right: observed activities.



watch. Additionally, students will use Dexter Lawn for physical activities such as yoga, slacklining, hula hooping, and playing volleyball. Landscape Architecture, Architecture, and Art and Design students use Dexter Lawn to exhibit their projects throughout the year. Clubs, panhellenic societies, and various departments host events such as the Study Abroad Fair, Blood Drives, information booths, and fundraisers. For example, every Thursday, CPCycling club sets up a booth on Dexter Lawn for free bike repairs for students.

A central park should embrace student activism, engagement, and socialization as an extension of the educational mission to promote social learning. The dominant lawn presence enables Dexter Lawn to facilitate conversation and movements around the arts differently than the University Union Plaza. The flat landscape and grassy area allow for social events to take place, fulfilling the purpose of a gathering space.

Due to San Luis Obispo's pleasant weather, students can enjoy the outdoor space all around the year. The large lawn area and shade from the tree canopies attract students to nap, meditate, and relax. Students use Dexter Lawn to take a break from academic activities and prioritize their mental health. The physical components support the amalgamation of social and restorative activities to recognize Dexter Lawn as the Central Park of the campus.

UU Plaza: The Plaza

University Union Plaza is a physical extension of the academic purpose, providing numerous resources for student needs, food venues, an amphitheater, and plenty of moveable seating. Located near the freshman dormitories, the recreation center, the university store, and the administrative buildings, the plaza is a prime spot for the campus hustle and bustle.

There are several food venues at UU plaza open for the entire day and the weekend. These spaces are specially catered towards the freshman population. The proximity to the dormitories encourages students to come to the UU plaza to enjoy lunch or dinner with their friends. Whyte (1980) suggests that food is a catalyst for socialization and building community and Banning and Strange (2015) encourage universities to add cafes and coffee shops to provide spaces for informal learning opportunities for students. Location and access to a variety of food n bring activity to the plaza as reflected in the data collected. University Union had 53% of users eating (108 out of 203 users), compared to Dexter Lawn's 28%, Centennial Green's 10%, and Edible Garden 5% of users eating. The accommodation provided by the moveable chairs supports the findings. Students have a proper seating arrangement to enjoy their food while working, studying, or socializing. Food attracts people which in return attracts more people creating a community and socialization through food. These physical and social attributes lead to a successful outdoor space on campus.

While Dexter Lawn has a generous amount of lawn, University Union only has one patch of lawn area and the rest is a paved surface. The physical components of the two spaces create a specific behavior setting and shape their unique character. Dexter Lawn is recognized as a central park for socialization and relaxation whereas University Union Plaza creates a more traditional academic experience. This distinction is reinforced with the presence of moveable and fixed seating at the University Union Plaza. The patio table, chair, and umbrella set facilitate a deliberate behavior that is similar to that of a library. During the data collection day, 85 students out of 203 (42%) were studying compared to Dexter Lawn's 65 students out of 244 (26.6%). Students often prefer a table to place their laptops and books down while they study. Additionally, they need protection from the sun to avoid glare on their electronic devices. The moveable chairs allow students to choose if they want to sit alone, with one person, or in a group. Since the library is farther away from the dorms, the movable and fixed seating at the UU Plaza and the study spaces inside the University Union building substitute the need to walk to the library for the freshman students.

Moveable seating is valuable for socialization as well. According to Whyte (1980), popular outdoor spaces have integral, socially comfortable seating, where users have the choice to sit up front, in the back, in the sun, in the shade, in groups, or off alone. Whyte (1980) and Strange and Banning (2015) suggest the importance of creating choice in a public space to give a sense of autonomy. People like to rearrange, change, or remove semi-fixed components of exterior space and moveable seating allows them to do so. The socialization and ability to study facilitated by the moveable seating show the adaptability of the plaza. At the University Union, the number of students socializing, 91 out of 203 (45%), is close to the number of students studying, 95 out of 203 users (42%).

Another physical attribute of the UU Plaza space that contributes to the informal learning environment is the amphitheater. Events such as the ASI Student Government Presidential Debate, Poly Cultural Weekend Performances, concerts, and WOW activities are held on the UU Plaza stage. Unlike the social activities of Dexter Lawn, activities at UU Plaza have a traditional academic air to them. Nevertheless, both Dexter Lawn and UU Plaza's adaptable space allows for clubs to set up informative and interactive booths.

The physical characteristics of the University Union Plaza liken it to that of an urban plaza as space attracts the hustle and bustle of the campus. The UU Plaza's components prioritize

the academic purpose of the university by enabling diverse activities for the students.

Centennial Green: The Courtyard

Nestled between Baker Center for Science and Mathematics and the Science building, Centennial Green is a quiet space with fixed seating, a lawn, benches, and a statue of Einstein. Despite possessing similar characteristics to Dexter Lawn and University Union Plaza, Centennial Green acquired a significantly lower number of users. Dexter Lawn had 244 users, University Union Plaza had 203, and Centennial Green had 126.

Compared to Dexter Lawn and UU Plaza, Centennial Green has a quieter and studious environment. Aspects of socialization still exist because of the presence of lawns; however, only 42 users out of 126 (33%) socialized on the day of the observation. On the other hand, 61 users out of 126 (48%) were studying. The scholastic environment present in the Baker Center for Science and Mathematics seeps into the Centennial Green. Even though Centennial Green had less number of users than UU Plaza, more of the users were studying. The fixed seating at Centennial Green creates a defined behavior setting. Furniture such as the Carousel Seating suggests an atmosphere of working and/or studying. When a certain, deliberate behavior needs to be demanded from users, this is extremely useful because the spatial organization and infrastructure have power over users.

The vegetation surrounding the carousel seating provides shade and adds aesthetic value to space. Likewise, the lawn provides an opportunity for students to relax. At Centennial Green 16 out of 126 users (12.7%) were sleeping, while Dexter Lawn only had 20 out of 244 users (8%) sleeping. Even though Centennial Green had fewer users than Dexter Lawn, more of them were partaking in relaxation. The lower accessibility translates to a quieter and more restful environment than Dexter Lawn which makes it perfect for relaxing during the afternoon. The restorative qualities of the lawn and shade slow down the busy lifestyle of students and allow taking a break from their academic pursuits.

Centennial Green shares physical components with Dexter Lawn and University Union Plaza that are reflected in the activities observed. The percentage of users socializing and studying is not far apart and the space provides for relaxation as well. However, key aspects of the location characteristics such as Accessibility, Moveable Seating, and Access to Food create an average space; a space that hosts many activities, but not to the number of other spaces on campus.

Edible Garden: The Pocket Park

Edible Garden is located between the Earhart Agriculture building and the English building. The space has an adequate lawn area and few fixed seating areas. It s sunken from Polyview Drive, is not visible to the pedestrians walking by, and is not centrally located. From the four locations, Edible Garden is the most isolated and unseen space and has a lack of activities.

Edible Garden had a total of 39 users compared to the 126 users at Centennial Green, 203 users at UU Plaza, and 244 users at Dexter Lawn. The fixed seating can accommodate 10 students at a time for working and studying. Out of the 39 users, 26 users were studying (66%) which means that studying was the most popular activity for Edible Lawn. Similar to Centennial Green, the fixed seating creates a defined behavior setting, communicating to the students the purpose of the furniture is to work. Hence, students who come to Edible Garden know they will be studying here. The notable difference in the number of users between Edible Garden and Centennial Green stems from other physical components.

According to Whyte (1980), people attract people. This phenomenon is seen at Dexter Lawn, UU Plaza, and to a certain degree at Centennial Green. However, the lack of accessibility to Edible Garden is reflected in the low number of users. In the same manner, food attracts people. Edible Garden does not have access to food near the space which decreases the number of people using it. The space has some green space and fixed seating similar to Centennial Green. However, Centennial Green had a higher percentage of users relaxing. The quiet atmosphere would suggest more users relaxing in the same way users did at Centennial Green, but the space has 0 users relaxing and 3 users on their electronic device.

Despite the lawn, paved surface, and fixed seating, Edible Garden provides very little adaptability for various activities. Users have a minimum choice on the type of social learning they want to partake in. Learning opportunities from socializing at Dexter Lawn and UU Plaza do not occur at Edible Garden due to the lack of adaptability for those social activities. Additionally, Centennial Green had 42 out of 126 (33%) socializing with 28 users in pairs and 15 users in groups of three. Edible Garden had 4 pairs of 2 users and 0 groups. The three spaces had some form of socializing that is missing at Edible Garden.

The physical elements present at the other locations are present at Edible Garden, however, few key principles such as Access to Food, Accessibility, and Adaptability hinder the utilization of the space. Ultimately, missed opportunities to create a social learning environment make Edible Garden underutilized.

Conclusions

Gaines (1991) astutely observes, "education is an endeavor that is most sensitive to ambiance; students respond all their

lives to memories of the place that nourished their intellectual growth" (p. 11). Therefore, designers' responsibility to create an outdoor academic space is heightened to encourage intellectual growth through behavior settings.

Linking observed activities and preferences to the location characteristics of campus open spaces reveals the influence of campus design on campus life. For example, the presence of lawn and the high socialization at Dexter Lawn give it the identity of a university "Central Park." Even though Dexter Lawn and the UU Plaza have distinct physical features, the high accessibility and adaptability of both spaces contribute to the diversity and intensity of activities at each location. The movable and fixed seating at the UU Plaza attract students who want to study despite the noisier atmosphere. Conversely, Edible Garden serves as a secluded and quiet space for students to study. This is reflected in the data as the dominant activity of Edible Garden is studying. The contrast between UU Plaza and Edible Plaza is student preference: whether they prefer quiet or background noise for studying, socializing, and relaxing. However, other factors such as accessibility, adaptability, and the presence of food reinforce students' preferences for their activities. Consequently, campus designers should better define the characteristics and the function of outdoor spaces to provide options to students. Through observations and data collection, campus planners can divulge aspects of the space that makes it effective and learn the improvements necessary to create a successful outdoor environment.

The research and findings of the project are only a preliminary discussion of the indispensable need for effective outdoor spaces on university campuses. The project aims to expand upon the research conducted by observers of public space and researchers of the campus environment to understand the principles of outdoor learning space on a university campus. Comprehension of the various outdoor academic and social environments on campus warrants the creation of a space typology based on the location characteristics and desirable user activities. Campus planners and designers can use this typology, along with the behavioral setting cues, to design a successful outdoor space to serve social and educational purposes.

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Co-Creation of Teenager-Sensitive Public Spaces

The C3Places Project Living Labs in Lisbon, Portugal.

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In this paper, the authors discuss the use of public spaces by teenagers in four public parks in Lisbon, as as part of the larger research project under the auspices of the European Union. Using the living labs methodology, the study centered on teenagers as potential co-creators of public spaces through their social and spatial practices, and considers their potential for civic involvement and place making.

Community engagement, both in urban planning and concerning public space issues, is increasingly important for governance. This essay is based on the results of a study undertaken in Lisbon as part of the larger research project C3Places under the auspices of the European Union.[1] The project uses Information and Communication Technologies (ICT) as mediators for more interactive placemaking and adopts an inter/multidisciplinary methodology that combines expertise and resources from urban planning, the social sciences, and the technologies. This approach allows a multidimensional analysis of the nexus people-public space-technology. The C3Places Project aims at advancing knowledge on the dynamics of the use of public space, and at exploring an approach towards more inclusive and responsive urban spaces. The goal is to inform policymaking in the design of strategies backed by co-creation approaches to meet the needs of people.

The C3Places Project includes four case studies conducted in different European cities (Ghent, Belgium; Lisbon, Portugal; Milan, Italy; and Vilnius, Lithuania), each study targeting user groups considered vulnerable to barriers that prevent them from fully experiencing and enjoying the opportunities provided by those public spaces: adolescents, physically disabled, and seniors. The limitations experienced by these groups also include their degree of empowerment and involvement in planning and decision-making. A stronger public engagement is more likely to generate more responsive, well-maintained, and sustainable public spaces. In turn, this process is bound to produce positive impacts on the urban quality of life and contribute towards more inclusive cities.

[1] See www.c3places.eu

This paper discusses the work program and the results of the Lisbon case study. Through a series of living labs with students (14 to 18 years) from a secondary school, the study aimed at engaging teenagers in placemaking to better understand their practices and needs regarding urban public spaces, backed by participative and collaborative methodologies, such as co-creation and co-research. Both are here understood to mean creative endeavors aimed at engaging people actively and directly as participants, creators, and researchers in urban planning and design. The Lisbon case study rationale is based on two major premises: a) interactions with peers in public spaces are fundamental for the cognitive development of teenagers; b) teenagers are widely excluded from decision-making processes for the planning, design, and maintenance of the places they use.

1. Teenagers spatial practices and involvement in placemaking

Several authors have discussed the importance of public spaces and public green spaces for social development and urban life. For Lefebvre (1991) public space is where social relations are materialized. It is the arena for citizenship or the site for symbolic identification (Carmona et al., 2003), and a place for the production and transmission of local identity (Malone, 2002). In public spaces, people build different social and cultural identities and practices, interact and share, negotiating their place in the community, and manifesting a sense of belonging to society (Innerarity, 2006; Mitchell, 2008). Moreover, public green spaces are important for environmental, ecological, and health benefits. Access to nature provides leisure and recreational activities (Godbey, 2009; Smaniotto Costa et al., 2008), and opportunities to

exercise and play (Stevens, 2007). Several studies point to the importance of open spaces in the fight against obesity and sedentarism. Access to nature correlates to a decrease in mental health problems and a reduction in blood pressure and cholesterol levels (Muñoz, 2009).

Public spaces must be attractive, responsive, and inclusive so that all could benefit from their use. The needs and values of all users should be considered and negotiated into a program that puts people and neighborhoods at the center of urban planning and design (Gehl, 1987; Jacobs, 1961). In acknowledging the importance of public spaces, UN-Habitat defines them as "all places publicly owned or of public use, accessible and enjoyable by all for free and without profit motive" (UN-Habitat, 2015, p. 15). Based on these notions, and particularly on UN-Habitat's, the C3Places Project and the present study recognize that access to public spaces creates opportunities for interactions between people – friends, family, and strangers – from the same or different social or generational groups. However, regarding teenagers' practices in public spaces, it identifies that these are frequently stereotyped, hence our interest in focusing the Lisbon study on this age group.

Adolescence is a phase characterized by biological, psychosocial, and relational changes and transformations. Teenagers experiment with lesser adult supervision, new degrees of independence, relevant for testing, and developing their own identity (Aitken, 2001). Social interactions with peers become increasingly important, and their practices are intertwined with a desire for social contact, leisure, and an apparent "doing nothing" which is crucial for group cohesion (Pais, 1993, p. 93–94). Public space plays an essential role for teenagers as the place for social interactions, influencing their physical, cognitive, and emotional development. Public spaces and access to nature influence cognitive and emotional development through the interplay of external stimuli (surroundings and social interactions) and internal inputs (motivation) and support the process of memory construction and the early development of creativity and the immune system (Muñoz, 2009; Strecht, 2011).

An increasing number of people live in cities where, for children and young people, passive indoor activities may prevail in daily life. Holloway & Valentine (2000) note that the decrease in the use of public space is a trend among teenagers. There are different explanations for this phenomenon. To start with, teenagers are often banned from public spaces and confined to specific institutions, like family and school (Ennew, 1994). Their experience is often influenced by the decisions of the adults, caregivers, educators, or regulators around them. Examples are curfews or limitation of time to be spent in public spaces, penalties for "unconventional" practices (such as skateboarding), or conflicts with other user groups (Malone, 2002; Owens, 2002; Skelton & Valentine, 1998). On the other hand, as the privatization and the commodification of public spaces increase, private and semi-private spaces seem to be gaining preference as places for social interaction, decreasing young people's opportunities to be in public (Valentine, 2004). "Publicness" seems to be shifting to private spaces, such as shopping centers and coffee shops, which then become the "third places" of informal gathering and social interaction (Oldenburg, 1989). Experiences in private, semi-private, or "pseudo" public spaces that offer the same functions and opportunities, as discussed by Holland et al. (2007), are for teenagers the same as those undergone in public spaces.

The C3Places Project advocates the importance of public space for people's well-being and the potential of involving users in placemaking to assure the creation of attractive and inclusive spaces valued by all. Engaging teenagers allow us to fully understand their spatial practices and respond to their needs, and it is seen by the UN Convention on the Rights of the Child (UN, 1989) as a fair and necessary measure. Yet, there is not much knowledge regarding teenagers' spatial practices and needs, and how to engage them in placemaking (Passon & del Rio, 2008; White, 2001). The Lisbon case study demonstrated the potential of living labs with teenagers to inspire placemaking, and that policymakers need to overcome their stereotypes and commit to building teenagers' capacities.

2. The framework of the Lisbon living labs

Empirically, the research took place in the Padre António Vieira secondary school (ESPAV) in the Alvalade neighborhood, aiming at exploring how teenagers appropriate and develop needs and preferences towards public spaces as well as to test co-creation and co-research as a suitable methodology to engage teenagers in urban planning and design. The research was multidimensional and collected data from different stakeholders (Table 1).

2.1. The Alvalade neighborhood as a field of work

Alvalade is a distinctive and paradigmatic neighborhood in the history of Lisbon. Its original plac (Figure 1) was developed between the late 1930s and 1945 by architect João Faria da Costa, considered Portugal's first urban planner. The plan aimed at controling Lisbon's chaotic urban sprawl and to provide rent-controlled housing for the middle and lower-middle classes. Alvalade was structured in eight residential districts around a central core – the ESPAV school. The plan's different districts are organized along wide boulevards leading to focal points, interlinked by pedestrian paths, with small squares and gardens located within the blocks. At the time, such an intervention was a novelty in Lisbon.

Objectives	Methodologies
Assess the features and user-friendliness of public spaces in Alvalade – potential, facilities and typologies	Literature review Review of development plans of Lisbon
	Field observations in the local public space network Field observation #1) features of space.
Explore teenagers' practices and behaviors to identify perceptions, needs, and requirements on public spaces, and detect potential conflicts of use	Field observation #2) uses and users of space
	Guided field trips to public spaces
	Interviews with council experts to collect their perceptions on teenagers' use of space
	Living labs with teenage students.
Experiment with co-creation/participative methodologies tailored to the context of teenagers	Living labs with teenage students.
Gain knowledge on social and urban policies to help draw recommendations for more responsive public spaces	Interviews with experts Analysis of national and council policies

Table 1: Objectives and methodologies. (source: C3Places Project, 2018)

Inspired by a mix of different design approaches from traditional land development to the Garden City and German's Siedlung, Alvalade's plan was implemented in different stages. Later phases, mostly in the 1950s and 1960s, introduced modernist elements, such as residential towers over pilotis along the main avenues and 3-4-storey detached houses in the interior of the blocks. The residential areas are mixed with retail zones, services, and equipment for daily use, e.g. a market hall, primary schools, and Alvalade Park. In 2012, an administrative reorganization expanded the area of the neighborhood beyond the original, and it is now one Lisbon's largest *Junta de Freguesia*.[2] To this day Alvalade is considered an example of well-distributed land uses, equipment, and traffic hierarchization. However, of the planned green block interiors few remained as common spaces (Coelho, 2007; Costa, 2002; Tostões, 2001), they were mostly sacrificed for parking lots. Alvalade's secondary school, the ESPAV, was selected as a site for the case study not only because of its importance for the district but also because of the school officials' support for the development of the living labs.

Figure 1: Alvalade's 1938 plan with the location of the secondary school. (source: Hemeroteca Digital Lisbon; http://hemerotecadigital.cm-lisboa.pt/ExposicoesVirtuais/Alvalade/Paineis/BAIRRO_plano.pdf)

2.2. Policies and strategies for civic involvement

In Portugal, there are a series of legal mechanisms of different characteristics at different levels of government that set goals and strategies for urban development control and participatory planning, while implementation is a task assigned to municipalities. These mechanisms were analyzed to better understand the regulatory framework to engage teenagers in placemaking. In principle, the strategic vision, strategies, and guidelines for public policies set up by Lisbon's City Council coincide with the C3Places Project rationale, as they aim at involving citizens in urban development towards a people-friendly city and inclusive, sustainable, safe, diverse, and accessible public spaces (CML, 2009). The strategy for the public sphere is to create meeting places (such as squares and gardens) at the heart of each *bairro*[3] to provide a place for socialization, crucial for identity building by the direct participation of different stakeholders (CML, 2012 & 2015).2 Young people's rights, including participation in decision-making, are also recognized as essential for the city's social

[2] In Portugal, the *Junta de Freguesia*, or parish council, is the smallest administrative unit of a municipality and functions as the first level of local government.

[3] *Bairro*, in Portuguese, stands for a neighborhood. In Lisbon, *bairros* are very meaningful due to their histoicak and cultural features in the city's identity (CML, 2015).

cohesion since participation boosts citizenship and encourages teenagers to contribute to societal development (CML, 2012).

In education, public policies established the mandatory creation of a Municipal Educational Charter and an Educational Council (Decree-Law 7/2003, 2003). At the local level, this provides wider opportunities for children and teenagers to voice their concerns and participate actively in the community. In Lisbon, one of the goals set in the Educational Charter is a better intertwining between education and urban development policies (CML & CESUR, 2008). As a priority, the Council established the diversification of formal and non-formal learning opportunities in school and other contexts (Conselho Municipal de Educação de Lisboa, 2017). Recent legislation also provided schools with broader autonomy and flexibility in developing the curriculum, promoting local responses, and a stronger connection with the community (Decree-Law 54/2018, 2018). The ESPAV secondary school was part of the pilot project for testing the applicability of this legislation.

At least on paper, the authorities find value in involving people in urban planning. However, only a few direct initiatives are reported, so there are reasons to question: how are guidelines and strategies being successfully implemented? Most references to civic participation are vague, abstract, and lack direct measures or implementation procedures. Regarding interventions on urban spaces, civic participation is even less present in the binding documents of the Lisbon Council (CML, 2016a, 2016b, 2016c, 2016d). While the strategies and visions show a will of the Council to be inclusive and to foster people's engagement, in practice, however, in urban planning and projects, authorities are not obliged to ensure participation. Projects and interventions may have to be presented to the public and concerned communities, but neither are these communities involved from the beginning nor direct and active participation is promoted.

Civic engagement is a demanding issue that can be aggravated by the time and resources consumed in bureaucratic procedures. Involving teenagers presents another difficulty: an alleged inability to participate since it is assumed that teenagers lack responsibility, legitimacy, experience, or interest to participate in decision making (Laughlin & Johnson, 2011; Passon & del Rio, 2008; Smaniotto Costa et al., 2020). During the case study, teenagers also showed low motivation due to an awareness of the time gap between participating and benefiting from the implementation of their ideas. Yet, the above-mentioned strategies and instruments provide a framework for participatory strategies, including co-creation and place-making. They have been used elsewhere and underpin "a natural response" to what cities have already committed in their strategies, goals, and visions (Sanders & Stapper, 2008).

2.3. Interviews with Parish's planners

Semi-structured interviews were conducted with four professionals working at the Public Space Division of the *Junta de Freguesia de Alvalade*. The interviews aimed at getting an all-encompassing view of experts' perceptions of teenagers' spatial practices in Alvalade and their views on public policies concerning teenagers. It also included a question focusing on the future of public space design. These Parish Council professionals participated in the living labs as well, and the Project team presented and discussed the final teenagers' ideas and proposals with them.[4]

The thematic analysis of the interviews followed four steps: generation of initial codes and aggregation into potential themes, review of initial themes, and identification of final themes (Braun & Clarke, 2006). Four final themes were identified:

a) How teenagers use local public spaces:

Teenagers' presence in public spaces is seen either as positive or negative depending on what an expert considers to be appropriate (or inappropriate) behavior (e.g. being noisy or misusing equipment not designed for them in playgrounds). Experts tend to highlight the negative features of teenagers' practices and the damage they cause to equipment, observing that teenagers "use some spaces that are not designed for them (…) degrading and misusing the space, they do not allow others to use the space" (Interviewee #1 – I#1). Experts are aware that in Alvalade, and in general, teenagers are faced with a lack of adequate spaces, and that they create their "own spaces, often with things that are not intended as such [meeting places], but which they see as an opportunity for gathering and socializing". Further on, another interviewee (I#4) stated the following: Teenagers "are more creative at finding ways to occupy the space". These experts also recognize that adults should be more tolerant because it is important for teenagers' identity formation and social interaction to push the limits in public spaces (I#3). For the experts, public spaces should be diverse, and interventions must promote the use and sharing of space by all age groups.

b) Teenagers remain invisible in debates on public spaces:

Experts are aware that adolescents are not actively engaged in public discussions: public spaces "are mainly designed for residents [adults] (…). The council invites the general public, we do not believe that participants have

[4] The results and ideas generated by teenagers were compiled in reports discussed in the school and parish council. These are available in Portuguese at https://c3places.eu/cs-reports.

to be adults, but it is not common for young people to join this kind of activities (…) we do not seek it directly [to involve adolescents]" (I #4). The parish's efforts towards teenagers are limited to organizing events and installing pieces of equipment regarded as suitable to their age but without any consultation. Experts also highlight the importance of civic education and the involvement of schools. They also identified some direct actions to engage teenagers, namely "taking them [to public spaces under construction] for planting trees, to perceive [them] as their own space (…) to feel that they also built something there and that the space belongs to them" (I#3).

c) Urban policies:

The parish council's jurisdiction is limited to the maintenance of public spaces, and its experts "do not have any decision-making power" (I #1). Technical rules and regulations, such as safety standards in playgrounds or accessibility plans, are imposed by the council, and none are specific to teenagers. Nevertheless, the experts reflected on different ideas on how to design a space for adolescents. This includes equipment for group use, for different ages, as well as flexible spaces with a wider variety of uses and activities. "Teenagers' zones (…) have to be designed for the group, including possibilities to lie down" (I#3).

d) Future public spaces for teenagers:

In their discourse, the experts stated a clear priority for transgenerational spaces covering the needs of all age groups. They mention circular benches, terraced areas, swings, or other fun elements as examples of equipment for teenager appropriate public spaces. Their views are better summarized by interviewee #1: "having a place to listen to music, to sit, etc. just such little things. The important thing is that teenagers can use all the space, and are not forced to split and that they have places nearby where they can get something to eat (…) and places to gather or to show off".

To sum up, the experts acknowledged the lack of direct involvement of teenagers in planning and decision making. They are aware of the potential of collaboration with schools to engage teenagers in public debate and urban planning and design. They all agree that the goal is to create flexible and multipurpose places to be shared by all groups. However, these experts also see teenagers as a difficult group to work for/with.

2.4. Space observations in Alvalade's public spaces

Public spaces in Alvalade were analyzed in two distinctive phases, using four dimensions of analysis: access and linkages, comfort and image, sociability, and uses and activities, as proposed by Project for Public Spaces (n.d.). In the first phase, the general features of the public spaces network were analyzed, considering uses, users, and facilities. The main goal was to identify spaces used and valued by teenagers. In collaboration with the students and after consultation with the Parish Council, the street space in front of the ESPAV school was chosen for the second phase and as working space in the living labs. For twenty days, this space was explored at different hours of the day and on different days of the week. The observation grids were analyzed together with the field notes and image library.

It could be observed that the distribution of spaces, functions, and equipment in Alvalade, as planned in the 1940s, remains well preserved and it is possible to identify a strong presence of green spaces in the neighborhood. There is a large green area (José Gomes Ferreira Park, 11 ha), multiple small yards, and shared green spaces in different quarters. Alvalade has broad pedestrian lanes edged by large trees and benches and squares. Public spaces offer practical and livable space between the large main roads and buildings. Areas immediately around public transportation stops and commercial areas are often busy. The neighborhood has many semi-indoors/outdoors public places, such as cafés/restaurants' terraces or kiosks. The Park is equipped for a variety of activities, with barbecue facilities, a fitness circuit, a coffee shop, and a playground area, and offers several benches and tables that provide different sitting arrangements in different parts of the park. With several entrances, it is easily accessible from different streets and has a cycle lane around it (Figure 2).

The observations show that teenagers' use of public space in Alvalade is much lower than expected. Also, students were not able to identify a public space they often use or like, which

Figure 2: José Gomes Ferreira Park. (source: C3Places Project, 2018)

Table 2: Main characteristics of public spaces in Alvalade and the spatial practices of teenagersProject (2020).

Public spaces around the School	Teenagers Practices	Frequency of use
Space in front of the school	• Circulation (to or from school) – mostly walking; few by bike • Hanging out, chilling, or chatting with peers – standing or sitting, in groups • Smoking • Using mobile devices	• Weekdays / during the day • Use related to school periods – breaks, especially lunch break • Before and after classes, especially at the beginning and end of the morning • Use is more intense in the mornings than in the afternoons, at night the space remains empty
José Gomes Ferreira Park (5 min. walk from school)	Walking, chilling	Low use frequency
General public spaces in the Alvalade neighborhood	Circulation/mobility (most walking)	• Weekdays / during the day • Before and after classes
	Sitting, chilling	Not expressive

Figure 3: Overview of school entrance at Rua Marquês de Soveral showing location of observations.

Table 3: Teenagers' spatial practices and frequencies of use in the space immediately in spaces indicated in Figure 4. (source: C3Places Project , 2020)

Area		Practices (group use)	Intensity of use
a	Collection point for *Gira* bikes, with free wi-fi provision	Sitting/leaning on the bikes and their supporting frame.	High
b	Bus stop (with the only bench in the area)	Hanging out / chatting with peers. Chilling/seating directly on the sidewalk. Use of mobile devices.	High
c	Sidewalk in front of buildings and buildings entrances		Medium
d	The coffee shop across the street from the school		Medium
e	Access ramp to the school		Low

can be explained by the fact that most of them live not in the neighborhood but elsewhere. This is evidenced by a study by AEA (2017), which shows that only 24% of all students from the four schools in Alvalade live around them. Of those teenage students engaged in the first phase of living labs (N=49) only 15% live in Alvalade. The spaces identified that are more relevant in terms of use by teenagers are depicted in Table 2.

In Alvalade, teenagers' spatial practices are mostly related to walking to/from school and thus connected with school schedules – teenagers use public spaces during the day, mostly early in the morning and later in the afternoon. At weekends they are less present. Children and young people are more frequently observed near the schools, hanging out – mostly in groups –, chatting or smoking, sometimes sitting and playing around equipment designed for other purposes.

2.5. Rua Marquês de Soveral as basis for co-creation

The street in front of the secondary school ESPAV—Rua Marquês de Soveral—was taken as a case area as it is well known to students. It is in a residential area composed mostly of three-floor buildings. Figure 3 and Table 3 show the area and indicate the location and the type of teenagers' spatial practices that were observed.

The street is only 130 m long but has traffic in both directions divided by a median with large trees and diagonal parking. The school is located at the end of the street at a corner where three different streets intersect, creating a broad street corner with wide, albeit empty, sidewalks. In front of the school entrance, there is a traffic island with a bus stop and a shelter. Close to the school entrance, there is also a collection point for Gira bicycles (city bikes), which provides free wi-fi to the immediate vicinity. Along the street, there are retailers, coffee bars and restaurants, grocery stores, and a snack-bar which opens only during the week and seems to attract mostly students and older residents from nearby buildings (Figure 4).

3. The living labs: discussion and results

The living labs aimed at testing participative methodologies tailored to the context of teenagers and aimed at advancing knowledge on the use of public space by young people. The labs were implemented in two phases: the first phase was organized between February and May 2018 with two 10th grade classes (N=49 students, aged 15 to 18); it encompassed both indoor and outdoor activities and was organized around four thematic workshops: a critical look of the city; construction of the city; the digital era and the city; and the design of an urban public space. Teenagers were encouraged to express their values, ideas, use patterns, and preferences on public spaces freely, increasing their capacity to participate actively in placemaking. The labs included different exercises and activities inspired by non-formal education strategies as suggested by the Canadian Institute of Planners (2002), including: exploratory walks in Alvalade's the public spaces students used observational methods to understand and reflect on the neighborhood layout in group discussions (Figure 5), brainstorming and design of ideas (Figure 6), interviews and questionnaires, seminars with members of the parish council and grassroots initiatives.

To collect ideas and suggestions from the broad school community, a "Loom of Ideas" (Figure 7) was installed in the school lobby for approximately two months before the second phase of the labs. The suggestions and ideas collected through the Loom were then discussed and analyzed in the second phase, which involved a week-long design lab organized in May 2019 (4 sessions), with two classes of the first grade of professional training education (N=20, aged 16 to 18). This phase had a hands-on character and aimed at exercising the design of proposals for Rua Marquês de Soveral. Participants were guided to the site and worked in groups, using a toolkit with digital tools (i.e. Padlet, an image bank, and Google Maps) and drawing materials (Figure 8). Tablets and other necessary materials were provided by the facilitators. The two groups presented and discussed their proposals in the last session (Figure 9).

Most students became actively engaged in the activities, valuing the hands-on approach, and appreciating being granted a voice. On the flip side, teenagers showed low spatial representation skills and weak knowledge of terms and definitions in the context of the urban fabric and public realm; for instance, distinguishing private from public spaces proved to be a difficult concept for them. The spaces mentioned more often as their favorite or the ones more frequently used seem to be private or semi-private and indoor spaces, such as shopping malls, where they hang out and meet peers, which also explains their difficulty in identifying public open spaces in Alvalade. In the last session, a short questionnaire was applied to assess the success rate and overall satisfaction with

Figure 4: Wide streets shape the space in front of the school. This context was the focus of the living labs. (source: C3Places Project, 2019)

Figure 5: Students discussing and analyzing the observation grid, after a trip through public spaces in Alvalade. (source: C3Places Project , 2018).

Figure 6: Students brainstorming on their spatial practices and needs, creating a visual graphic with sticky notes. Source: C3Places Project (2018).

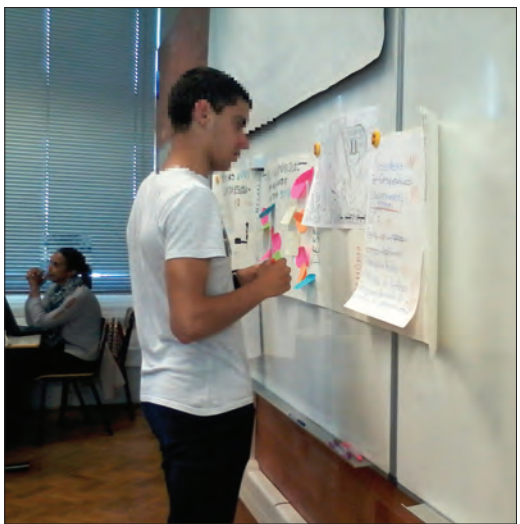

Figure 7: Students contributing to the Loom of Ideas at the school lobby to boost participation of the broader school community. (source: C3Places Project, 2019)

Figure 8: A group kicking around ideas for increasing road safety and street layout. (source: C3Places Project , 2019)

Figure 9: Students presenting their proposals to the class. (source: C3Places Project, 2019)

the labs, composed of 13 statements, expressing agreement or disagreement using a 5-point Likert scale.[5] Results highlight the importance of the sessions to increase awareness of placemaking and as opportunities to discuss different needs in public spaces. In general, the students agreed (60%) that the "co-creation of public spaces is cool".

In both phases of the labs, the street in front of the school was used as a place to reflect on, to observe, and to develop proposals and ideas towards transforming it into a teenager-sensitive space. The main outcomes from all the collected materials are presented in Table 4.

There is nothing fanciful about these ideas (the main features of teenager-sensitive places are summarized in Figure 10), they are in line with the known needs of public spaces: people want an inviting place to socialize, to sit together in small groups or alone, surrounded by greenery. The living labs revealed that, regardless of the arguments about teenagers' lack of skills and experience, they can actively and creatively become engaged and make proposals that benefit all. They are also sensitive to the need for more people-friendly, sustainable environments as a contribution to increasing quality of life.

The discussion also revealed adolescents' poor urban literacy, a possible justification for their difficulties in identifying and reflecting on the public spaces in Alvalade since known public spaces are likely to be in their neighborhoods. But simultaneously, the labs proved that investing in territorial empowerment and urban awareness is fruitful. Moreover,schools offer better opportunities to engage teenagers in cocreation,since access to them is easier and engagement in a familiar environment is more effective.

Table 4: A snapshot of needs, ideas, and proposals identified with and by teenagers in the living labs and Loom of Ideas.

Issues Identified by the teenagers	Proposals
Accessibility and safety	Redesign of traffic and the circulation path. Increase pedestrian security (more crosswalks). Increase public transportation. Create shared spaces (design interfaces).
Urban equipment and street furniture	Amenities to socialize and meet (for group use). Sitting opportunities for groups.
Friendlier environment	More green or natural areas. Protection from the weather and shading.
Amenities	Wi-fi hotspot. Water dispenser.

[5] Out of 20 questionnaires 19 were valid.

For children, teenagers, and young people, the school is among the most prevailing locations for daily interactions, and co-creation in the school context can provide a deeper understanding of and connection with the environment around them. Schools, being a pillar of the community, are important for providing an official framework, also towards attracting other stakeholders, among other local authorities.

Features valued by teenagers may be universal, but that does not reduce the need to involve them in urban planning. Teenagers should have a voice in community-centered urban planning processes. This also does not mean that teenagers have no specific needs. Teenagers seem to understand that places must be inclusive, and thus shared and negotiated with others. Urban planners and decision-makers must understand the same, and actively engage different stakeholders.

4. The use of public spaces and the COVID-19 Pandemic

The impact of the COVID-19 global pandemic and associated containment measures have changed common, everyday life and the way people access the city. Concerning the issues tackled by C3Places and the Lisbon case study, some issues can be raised:

- Teenagers faced huge challenges during the lockdown, as they had to get used to a completely new way of life. They are more prone to social isolation and sedentarism. The lack of social contact can be minimized by online communication and interaction, but it cannot substitute face-to-face contact (Orben et al., 2020). Teenagers have become more exposed to poor mental health and other risks such as domestic violence and exploitation (Children's Commissioner, 2020).
- How will the use of public space be affected if the activities teenagers value most (gathering in groups, chilling, and being close to peers) are those not recommended for health safety reasons? This is a particularly pertinent question since it is not clear how much longer such restrictions will prevail.
- The impact of the coronavirus shows that accessibility and inclusion in public spaces are more important than ever. In Portugal, the benefits for individual health of using public spaces and spending time in nature were recognized by health authorities in the permission, during the lockdown, of walks close to people's homes. High-density neighborhoods and those with few public spaces may face a greater risk of contagion. This raises the question of how to reach a public open space within walking distance to keep better mental and physical health?

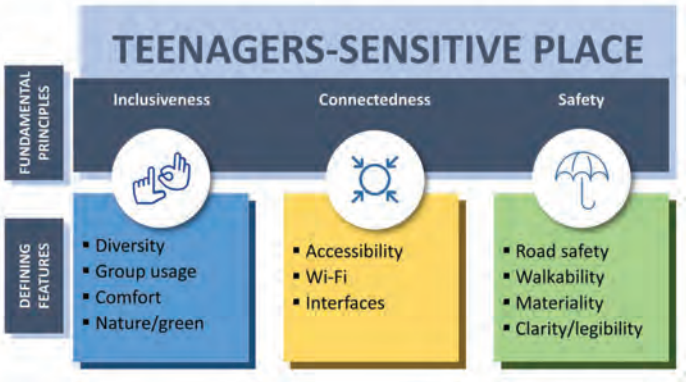

Figure 10: Dimensions and features for a teenager-sensitive place. (source: C3Places Project, 2020)

- Regarding educational policies, the pandemic in Portugal revealed weaknesses in the management of learning outside of the school context. Schools were requested to provide a quick response to allow greater flexibility in the context of digital learning. This might be a chance for enhancing non-formal education, also regarding urban awareness. The outdoor spaces can be "sites" for learning, not just to learn "about" nature and public space but to learn "in" nature and public space.
- Participatory planning and co-creation, with face-to-face engagement, may not be a priority for the moment, but shunning users is also not justifiable. The current situation opens an opportunity to make use of other tools – digital, for example. The question is whether these tools will support the inclusion of more stakeholders or rather increase the digital divide.

These questions call for further investigation on the impact of the pandemic on public space used by all, but mainly by teenagers.

5. Concluding Remarks

Without a doubt, identifying and addressing the spatial needs of adolescents and young adults is a demanding issue. This can be better achieved by putting into practice approaches that promote collective creativity and co-creation, as they boost negotiation between different stakeholders and the sharing of responsibilities. Likewise, such participatory approaches can change players' roles in urban planning, including researchers, as they become more involved with the concerned community as co-researchers, and can exchange knowledge, experiences, ideas, and concerns directly. Co-creation of public spaces offers a chance for civic engagement, which is paramount in achieving resilient and inclusive urban environments. Young people should be among those involved in decision-making

processes. Urban policies and council experts in Portugal also recognize the potential of civic engagement. Legislation, strategic planning, and visions of the city of Lisbon provide a framework to intensify participatory strategies in urban design, which goes hand in hand with fostering urban education, promoting citizens empowerment, and boosting territorial capacity building. To achieve these, the issue of co-creation has to be set on the agenda by local authorities, along with allocating funds, resources, and time.

Education policies also provide good arguments for engaging teenagers, which, backed by non-formal education principles, aim to increase interactivity and raise awareness of environmental issues. Schools, local authorities, and other administrative bodies, civic associations, and third sector entities are fundamental partners in a holistic approach to the design of people-sensitive public spaces. The experiences presented above show that it is not easy to involve teenagers, be it because their rights are not granted or because teenagers themselves do not see the advantages of their involvement.

On the flip side, it is also acknowledged that there are not many public spaces that meet teenagers' preferences. Other age groups, particularly children, have adapted spaces to their developmental needs and capacities. For planners, one difficulty seems to be the very design of places for teenagers, since adolescence is seen as a phase of transition and uncertainty. However, responding to teenagers' requirements should not result in exclusive/segregated places. Flexibility is a crucial feature for more sustainable and friendly cities. A balance is required between responding to permanent requirements and fostering current (even transitory or ephemeral) needs.

As the C3Places Project advocates, the involvement of different users in placemaking, in particular teenagers, is a strategy to address that challenge. This challenge is even more pressing due to the COVID-19 pandemic, as it poses the need to reconsider our way of life: The call for better utilizing the potential of public spaces to support a range of inclusive outcomes is even stronger.

• • •

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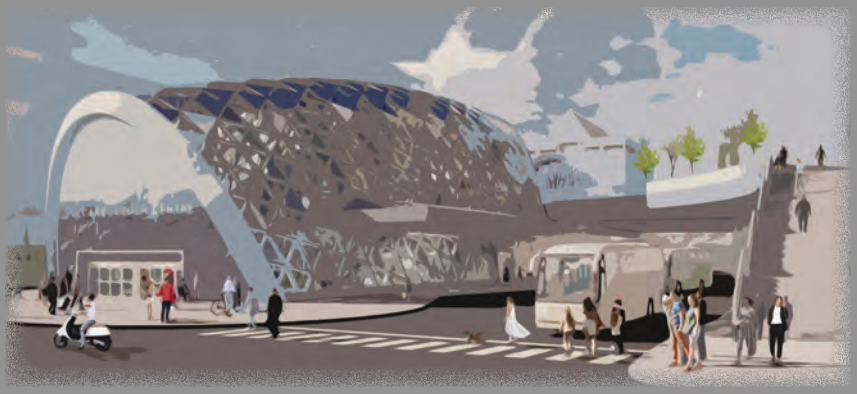
FOCUS 17

Essays

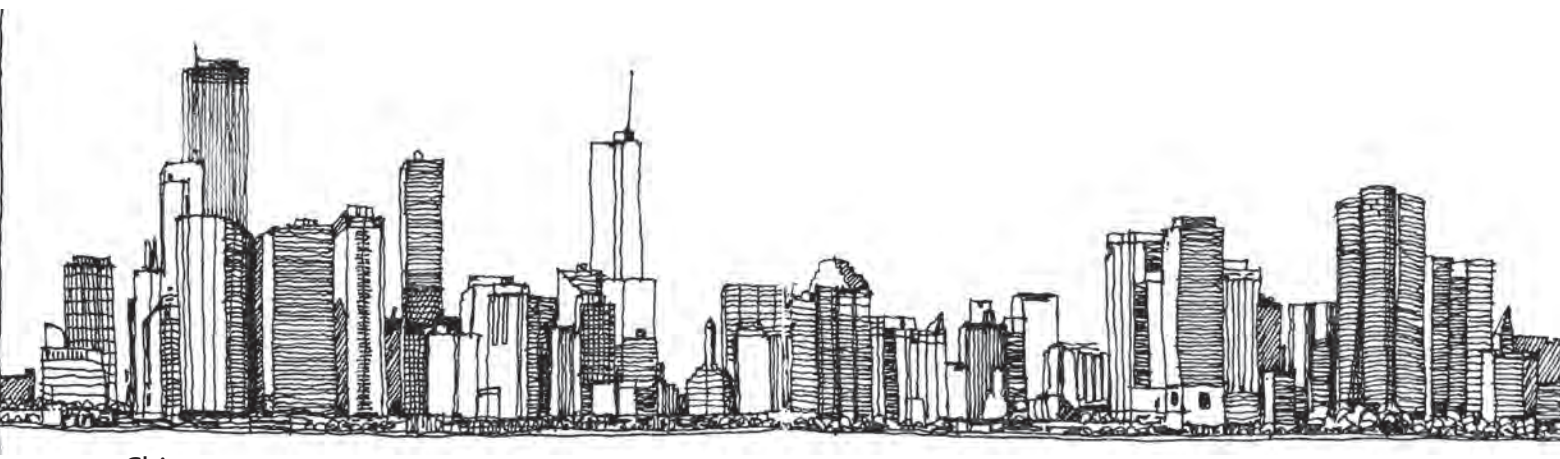


City Skylines: Where Reality Meets Imaginary

Carlos de Almeida
E.U. Architect; design studio leader/director at AECOM, Baltimore.

With his beautiful scaled sketches of different city skylines, Carlos de Almeida reminds us of the importance of drawing as a method to help us keep an attentive and critical eye to represent the essence of reality. Planners and designers are fundamental agents in transforming cities, from policy making to design build, and their decisions hugely impact a city's collective image and the imaginary interpretations that stand for them.

New York



Chicago

San Francisco

Philadelphia

Seattle

Detroit

Quebec

Vancouver

The New Scarborough Center Station, Ontario, Canada

Carlos de Almeida

E.U. Architect; design studio leader/director at AECOM, Baltimore.

Given the growing importance of public transportation, cities are utilizing station projects as opportunities to regenerate urban areas creating new linkages, active open spaces, and architectural landmarks, and encourage private development. Carlos Almeida describes the inconic project for the new transit station in Scarborough, a Toronto suburb.

The new Scarborough Center Station project is in a consolidated and complex urban fabric in the suburbs of Toronto as part of a strategic local and specific plan to improve and modernize the transit system, and to respond to the unique site features.

The existing rail track alignment and Scarborough Center Station are located above a trench-like space between the City Center and mall on the north side, and the Service Canada Center, the Civic Center, and several high-rise structures on the south side. The station is connected on both north and south sides with pedestrian structures to guarantee access to public spaces surrounding the Civic Center on the south and to the existing Town Centre and Shopping Mall on the north.

On the east side of the Scarborough Civic Center, there is a public space that is connected, through a pedestrian gallery, to the existing rail station. At the level under the existing rail tracks, there is vehicular access through Triton Road that connects west and east to the existing streets, Brimley Road and McCowan Road, respectively. It is through this level that operates a bus system in coordination with the train.

The site, due to its latitude and existing contextual elements is protected from intense solar radiation, however, solar studies had revealed some intense exposure during July and August which represented a significant database to influence and develop the design and integrated energy solutions.

The proposed new Scarborough Center Station has a totally different approach from an urban standpoint to improve the experience at several levels. The Subway line extension replaces Scarborough Rapid Transit Line (SRT). This approach greatly improves the local experience, reducing visual and sound impacts, and the opportunity to rethink the station design toward excellence. The new design is intended to be as light and open as possible, using simple geometry and morphology that improves the passenger experience whether inside or outside the

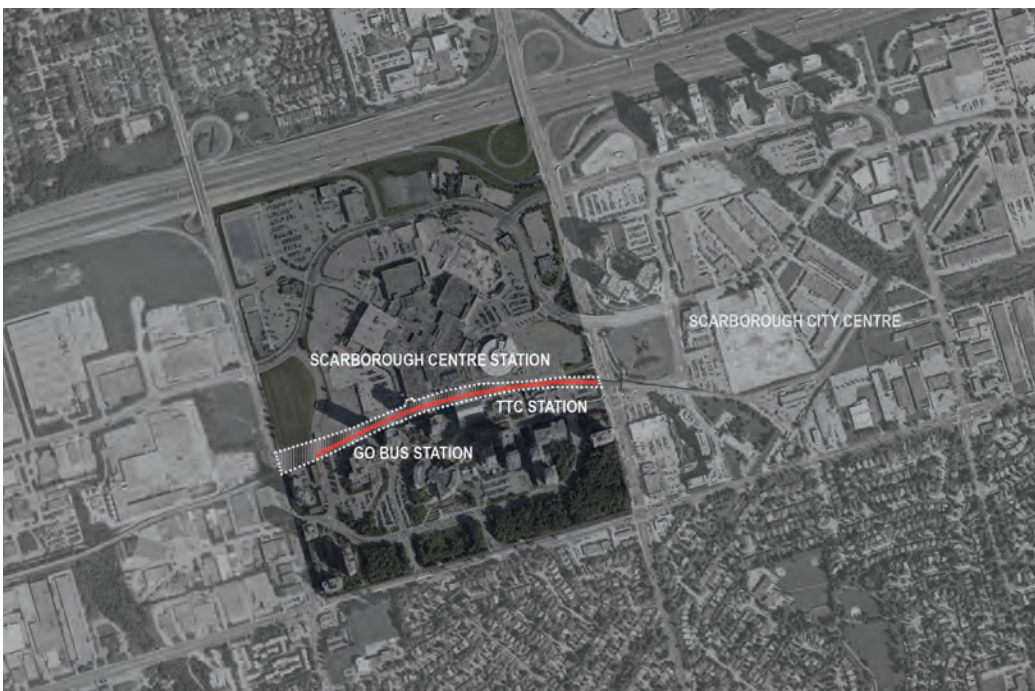


Figure 1: Location of the new transit station (in red) at Scarborough's city center. (source: AECOM)

station while improving the urban connectivity with the existing surroundings. Besides, the station entrances have associated public spaces to improve passenger and user experience.

Programmatically, the station is very long with four levels: Subway, Concourse, Bus Terminal (Triton Road), and Entrance (Borough Drive). On the west side, the fourth level guarantees access to the Bus Transit Facility and the town center through a wide pedestrian bridge. This connection establishes a strong path from the Scarborough Civic Center to the bus transit and city centers.

Based on the described aspects and design philosophy, the selection of materials, and the scale and proportionality of their elements were seriously considered. In this case, it is important to think of a strong relationship between architecture and structural engineering in which the structure becomes architecture and vice-versa since the structural main elements become totally exposed.

The design concept is based on simple geometric torus forms to symbolize motion and movement of mass transportation, and the most adequate response to the constraints of the site that is narrow and elongated. Two tori are the base forms that are carved to accommodate the programmatic functions of the entire facility, west, and east, respectively, for bus transit facility and subway station. The simplicity of the form(s) and their carving are the results of vehicular and pedestrian accesses. In all, the consistent massing on both sides is maintained and clearly identified as a unified vocabulary, that is, as referenced to the same building complex.

Steel and glass are the main materials. The glass has two categories, transparent or vision and opaque. The shells on the west and east sides were designed to keep the vision glass mainly in public spaces whereas the opaque glass is in areas of mechanical and storage areas that are supposed to be protected and hidden. The shell design is based on the interior programmatic challenges and the ratio of transparent versus opaque allowed, that is, solar radiation during July and August and the use of passive ventilation integrated into the building design, such as the glass gables at the shell ends.

The Scarborough Center Station was designed to become an iconic structure, a reference in the urban fabric, and as part of the celebration of travel. The station design supports city and private initiatives that transform the area from a car-centric suburban campus to a pedestrian-focused urban precinct.

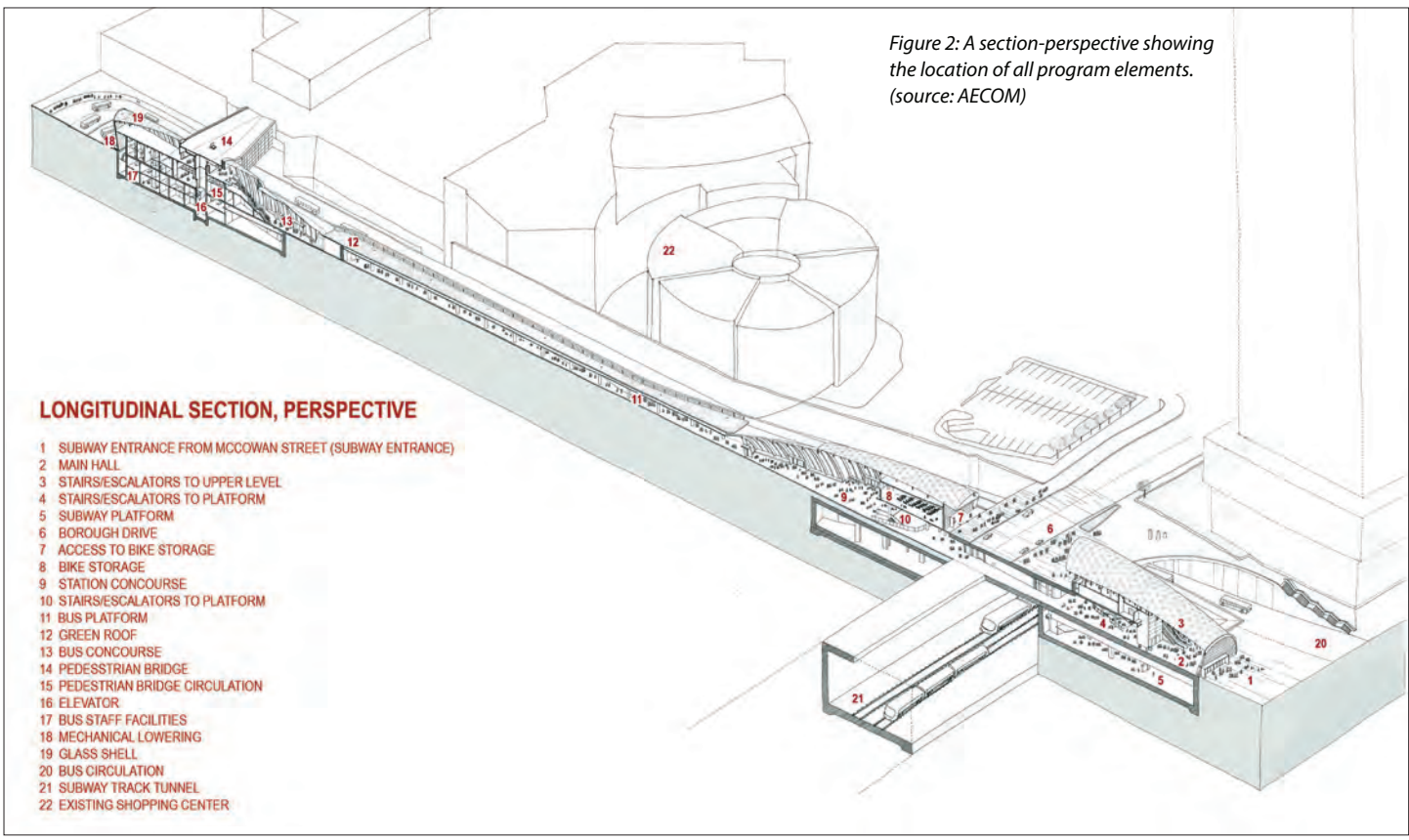
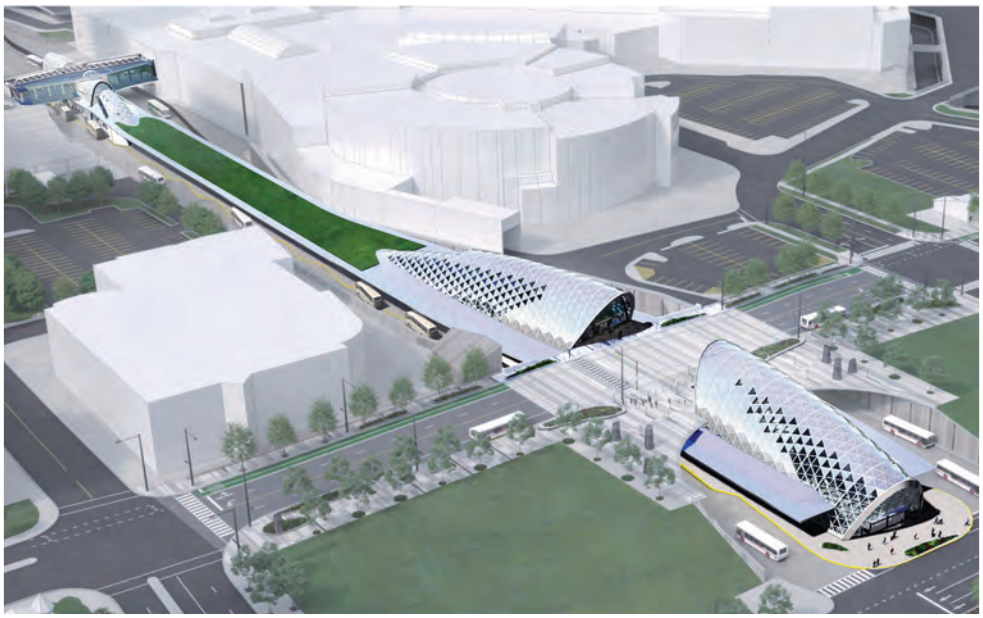
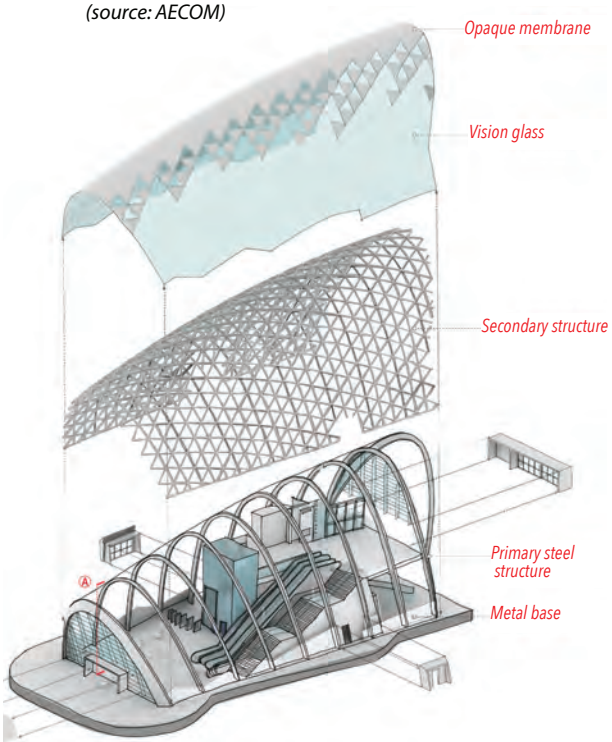


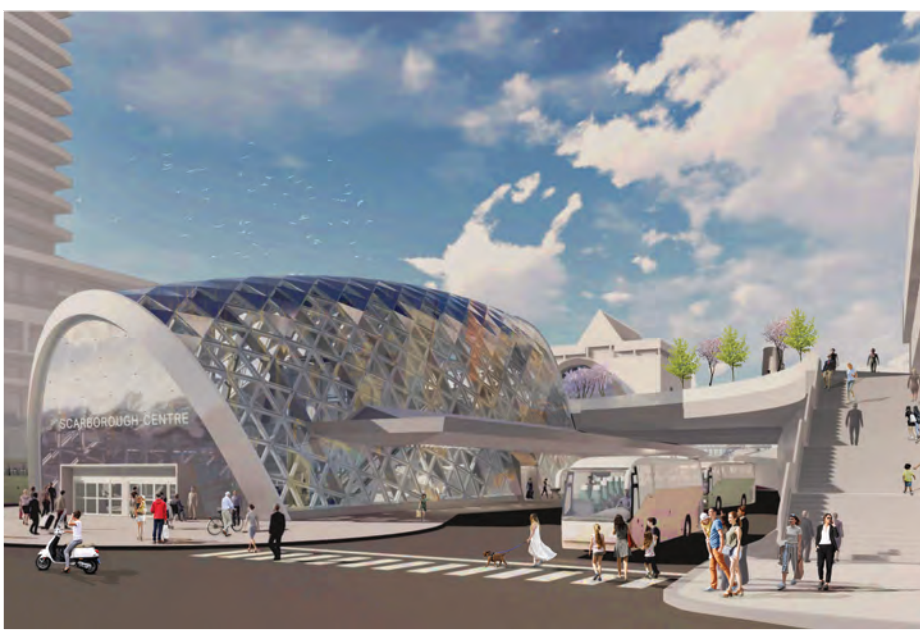
Figure 2: A section-perspective showing the location of all program elements. (source: AECOM)



Figures 3 to 5: Computer renderized views. (source: AECOM)

Figure 6: An exploded perspective view of the different roof elements. (source: AECOM)





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Poundbury - New Urbanism Traduced?

Ivor Samuels

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In this article, Ivor Samuels discusses the design of the new town of Poundbury, commissioned by Prince Charles and now in its second phase. Reflecting the Prince's design preferences, Poundbury followed New Urbanist principles. As Samuels points out, its attachment to a romanticized past, its out-of-place classical architectural styles, its centralized design control, and an artificialized community life seem to be common ideals of many current world leaders.

Poundbury is a planned extension of Dorchester, a small country town of 20,000 people in the south of England, which has its origins as a Roman settlement. The plan was commissioned by the Prince of Wales (POW) in 1988 and building started in 1993. It now houses 3,800 people and 2,300 work there. It is intended to expand to around 5,800 people by 2025. The POW was able to commission the design because the land owner and developer of the 160 hectares is the Duchy of Cornwall, a private estate established in 1337 by King Edward III to provide an income for his son and heirs. The estate now provides an income for the current Duke of Cornwall (another title of the POW), the current heir to the British throne. Poundbury is part of the property of the Duchy which covers 52,000 hectares of land in parcels across all of England (Duchy of Cornwall, 2019).

As the manager of the Duchy's estates, Prince Charles has been able to realize, in this rural corner of England, his vision of how towns should be planned which he had set out in his book *A Vision of Britain* (POW, 1989). He is notorious for his rejection of modern architecture summed up by his speech at the 150th anniversary of the Royal Institute of British Architects in 1984, where he attacked modern architecture and modern architects because they "have consistently ignored the feelings and wishes of the mass of ordinary people" and that they "tend to design houses for the approval of fellow architects and critics" (POW, 1984).

The Poundbury Masterplan was entrusted to Leon Krier who has collaborated several times with new urbanists Andre Duany and Elizabeth Plater Zyberk in several projects, such as Seaside and Celebration in Florida. A discussion of the first phase of

Figure 1: Birds-eye view of Poundbury's first phase. The second phase can be seen being on the top of the image. (source: Google Earth)

Figure 2: A typical street in Poundbury in Phase 1. (photo by the author)

Figure 3: Back court car parking in Phase 1. (photo by the author)

Figure 4: Queen Mother Square and the supermarket. (photo by the author)

Poundbury was included in the postscript to the English edition of *Formes urbaines: de l'ilot a la barre* (1977). It was one example of a return to the use of streets and urban blocks as manifest by the development of inter alia New Urbanism in the United States (Panerai, Castex, Depaule & Samuels, 2004). Its implementation has aroused fierce responses – positive on the case of post-modernist practitioners of contemporary classicism, and negative in the case of most proponents of modernism, such as Hatherley (2009). In spite of this controversy, Poundbury has had a big influence on the houses built for sale by the volume developers who dominate the British housing market. But the POW had full control over the land, has a long-term vision for his urban extension, and imposes a high degree of control over the house owners. These factors render it very difficult to achieve any similar long-term interest since speculative builders have to buy the land and are then obliged to dispose of the dwellings as quickly as possible in order to satisfy their shareholders' demand for dividends.

Poundbury's first phase is clearly a reinterpretation of the traditional forms of the local vernacular with a variety of buildings using local materials and building forms. The urban layout is very clear with most houses having doors opening directly off narrow streets (Fig. 2). It is also notable for the way social housing is mixed with and indistinguishable from those units sold on the open market. Local facilities were also incorporated into the street network as part of the attempt to make a functioning local community.

However, traditional streets did not have to accommodate vehicles and at Poundbury they are parked in back courts. Surrounded by garden walls, these publicly accessible spaces are not overlooked and often without proper street lighting (Fig. 3). Although rear parking courts were to be adopted in many subsequent housing developments in the United Kingdom, they have been criticised for their lack of security (English Partnerships, 2006). Also, because of the car parking arrangement, the rear entrances to the dwellings become just as important as the intended main entrances on the streets. It has been reported that during a door to door survey in Poundbury, knocking on the front door resulted in the noise of furniture being dragged away in order to open the door since it was normally entered from the rear where parking is located. The traditional, relatively small windows have also been copied by speculative housing developers who use them because it is cheaper to achieve a given thermal performance with solid walls than with windows.

Given the first phase's modest scale and its clear link to local tradition, a visit to Poundbury's more recent phases and later buildings prove them surprisingly out of place. Of note is the Queen Mother Square (Fig. 4) and surrounding apartment

Figure 5: Neo-classical apartment block at Queen Mother Square. (photo by the author)

Figure 6: Community requesting road markings. (photo by the author)

Figure 7: A carpet showroom adorned with Doric columns. (photo by the author)

blocks, such as The Royal Pavilion that seems to belong more in the Vienna Ringstrasse than in the shopping square of a small town in the English provinces (Fig. 5). In a traditional town centre, dominating buildings like that would house civic functions but this is a block of luxury flats while the public buildings, such as the school, are much more modest and much less classical (a case of form follows funding?).

Queen Mother Square provides car parking for a supermarket buried in one of the enclosing buildings. While this is admirable in comparison with having a supermarket in a free-standing single storey shed with blank side walls, the parking space seems oversized for the number of cars accommodated because the paved parking lot has no indication as to where cars should be parked. This is because the Prince of Wales does not like road signs as they interfere with Poundbury's aesthetics and, therefore, there are very few throughout its whole area. The absence of traffic signs and road markings may make parking very easy, if disordered, but it also encourages vehicles to drive too fast. Figure 6 depicts a small community demonstration protesting for road markings following the death of a young motorcyclist because of a dangerously parked vehicle.

In order to overcome the problems of rear court parking noted above, many courtyards in Poundbury's new phase incorporate one or two houses in order to give some degree of surveillance. These dwellings have no direct opening to the street system which projects a feeling of isolation between the families living in them and the community of the street. There are a number of feature buildings that act as landmarks but one must question their architectural derivation from local traditions and their lack of association with images which could inform the observer of their function. For instance, the carpet showroom adorned with massive Doric columns (Fig. 7) and the Fire Station's neo-classicism (Fig. 8). Other noteworthy curiosities are apartment blocks where the design replicates a normal street facade by the use of fake doors (Figs. 9 a&b) or the Doric Fire Station where the entrances are really around the back.

This theatrical quality is similar to that found in many European shopping villages which take local vernacular architecture and invent locations closely resembling theme parks or versions of Disneyland. In order to retain these stage-set qualities, throughout Poundbury rules are strictly imposed on homeowners. These include, among others, that they cannot "without the consent of his Royal Highness... paint or decorate the exterior of the Property otherwise than in the same colour or colours as the Property was previously painted" (Poundbury Manco, 2020). This seems to be an unnecessarily onerous restriction on homeowners' ability to personalize their dwellings and it appears to contradict the call for an architecture that responds to locale and to the needs of ordinary people as laid

Figure 8: Poundbury's fire station. (photo by the author)

Figures 9 a & b: An apartment building with a fake main door to street, and a detail showing the door. (photos by the author)

out in the Prince's speech referred to above. While Poundbury certainly achieves most of the principles laid out in the Charter of New Urbanism (CNU, 1996), such control over individuals seems excessive.

Given these criticisms, perhaps it is appropriate that a pseudo feudal agency is developing Poundbury, since it feels remarkably symbolic of the political moment that the United Kingdom has been experiencing: a desire to go back to an imagined past that never existed. Perhaps it would also be appropriate to rename the town as Brexitbury or even Johnsonstadt (after Boris Johnson) following the example of new towns designed with stringent central controls such as Stalinstadt (now called Eisenhuttenstadt) in Germany and Sztalinvaros (now Dunaujvaros) in Hungary. Attachment to a romanticized past, classical architectural styles, centralized design control, and an artificialized community life seem to be common ideals of many current world leaders.

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The Urban Design Charrette as Catalyst for Investment in Dunedin, New Zealand

Kobus Mentz

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In this article, the author—director of one of Australasia's most prolific urban design firms—describes how the revitalization of Dunedin's historic warehouse district resulted in a creative quarter with new high-level jobs, urban residents, and numerous saved heritage buildings. The charrette process used, celebrated recently as a top international example,[1] successfully forged consensus in a divided community and attracted significant private sector investment.

Dunedin (the Gaelic name for Edinburgh) is a city of some 120,000 residents in Otago, New Zealand's South Island. One of New Zealand's oldest cities, it houses the country's oldest university and has an extensive historic fabric. In recent years economic and population growth had slowed down and the City Council had incurred substantial debt.

In 2011, a new mayor with strong leadership was determined to change this situation and give a new direction for the city. Urbanismplus, under Kobus Mentz' leadership and with Wayne Bredemeijer as the project manager, was selected to produce a new Dunedin Central City Strategy. A particular focus was on the virtually abandoned historic Warehouse Precinct adjacent to the central city was threatened with demolition due to the costs of earth¬quake strengthening requirements.

It was understood from the outset that the early work done by the City Council's Dr. Anna Johnson and Glen Hazelton had to be absorbed into an encompassing framework which would:

- Identify and address the key city center-wide issues as well as a more detailed response to the Warehouse Precinct.
- Provide a coherent vision and the sequence of strategic initiatives required to achieve it.
- Gain the confidence of the business sector and wider community and support for the strategy framework.
- Simultaneously address key issues from a range of angles.
- Identify opportunities to boost prosperity and employment.
- Define and counter risks that may weaken retail viability and diminish built and open space character.

In reality, these simple objectives are very complex to achieve as they require a special blend of skills and experience. Development and market needs have to be reconciled with public good. Many different stakeholders and technical disciplines have to be integrated, often with legitimate, yet competing aspirations. At an implementation level concepts, policies, rules and guidelines have to be practical and deliverable with very clear objectives, roles and responsibilities.

The Charrette

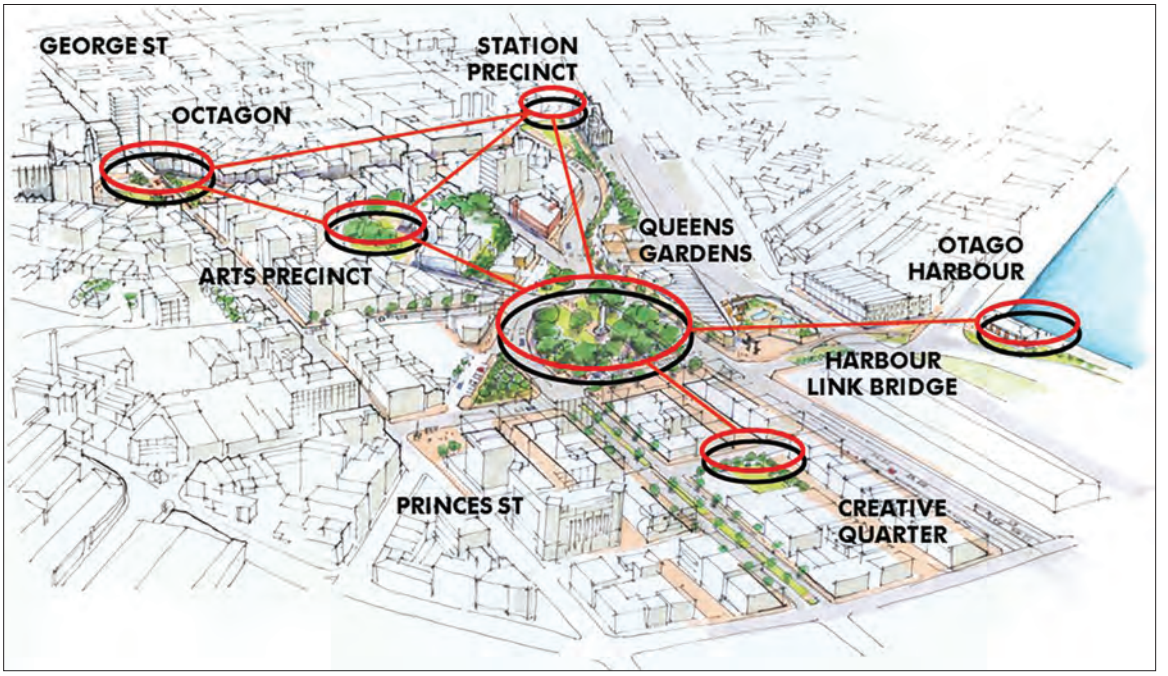
A charrette-based approach integrating stakeholder views and discipline specialists,seemed the logical way forward. This was to be preceded by a substantial consultation program including; public information communications, councilor sessions, focus group sessions and a public visioning workshop with about 100 attendees. Ideas, aspirations, and concerns were harvested, collated, and reported back into the charrette process. A four-day intensive technical inquiry-by-design charrette followed.

The 'one team' approach was used with consultants paired with Council discipline specialists. This enabled high-quality expertise to be combined with local knowledge and realism and resulted in good subsequent follow through due to the 'ownership' of those tasked with implementing the strategies.

The charrette consisted of the following sequence of activities:

- Information exchange and presentations - to be integrated everyone needs to know everything.

[1] See Campion, Charles (ed.). 2018. *20/20 Visions - Collaborative Planning and Placemaking*. London: Royal Institute of British Architects.



Figures 1 & 2: Outcomes of the charrette: concept diagram for for spaces and events network (top), and concept for street revitalization (below). (souce: Urbanismplus)

- Single disciplines explored their areas in depth - shallow knowledge will deliver shallow integration.
- Each discipline developed their own 'ideal strategy'- so that integrated options start from an aspirational basis, not a compromised one.
- Integrated strategic options were developed and tested – done collectively to build trust.
- Room was allowed for left-field thinking alongside left-brain deductive processes.
- Implementation attributes of ideas were gradually developed, but not too early as this could damp creativity.
- Strategic options were narrowed down, resulting in hybrid options before the preferred option was identified.
- A draft implementation strategy was determined, with a strategic sequence of actions, of which the priorities are determined by those with the best balance between being transformative and deliverable.

The final strategy included:

- A strategy for each discipline network namely; movement, mix of uses, heritage, open space, employment, community.
- Measures aimed at the strengthening of the George Street retail vitality and the arts precinct, and a public space upgrade of the Octagon, Dunedin's signature central city public open space.
- The Warehouse Precinct initiatives including a set of public space, regulatory, procedural, and financial changes were

Figure 4: The Warehouse Precinct Street Festival.
(souce: Urbanismplus)

Figure 3: New design and public events regenerating Jerry Street, Warehouse Precinct.
(souce: https://nzila.co.nz/news/2017/10/dunedins-warehouse-precinct)

proposed to generate high-value employment in this area.

- Far-reaching traffic changes, transforming into two-way of the one-way pair of State Highways running through the city center, to reconnect the heart of the city center with the historically significant Queens Gardens and the Warehouse Precinct.
- Improvements to the visitor, student, and night-time experience.
- A program of events aligned with the various public spaces in the center.
- Improved pedestrian connectivity between the city center and the harbor, proposed for the long term.

Post Charrette

A key moment in the process was the enthusiastic buy-in from a divided public at the project presentation, this emboldened elected members to give their full endorsement. Confidence was built by first listening to the views and aspirations of stakeholders, undertaking to investigate them, then explaining what the investigations delivered and providing a strongly justified strategy. Even where outcomes were contrary to expectations they were accepted because the initial suggestions had been taken seriously, and people felt listened to.

City Council endorsement brought an initial funding of NZ$500,000 for public realm improvements and NZ$70,000 of further incentive funding for a re-use grants scheme was approved immediately. Changes to the District Plan (the legislation controlling the land use and development) that encourage redevelopment of historic buildings in the Warehouse Precinct were implemented, and soon the first $5m private sector anchor project proceeded there, resulting in new jobs.

In retrospect, the Dunedin Central City Strategy can be regarded as a success, many of its initiatives have been implemented, and it offers a framework for future work that will evolve as circumstances change. Most notable has been the dramatic revitalization of the Warehouse Precinct. With the public realm upgrade substantially complete, and funding and rule changes in place, the market has responded strongly.

A recent analysis of the return on investment showed that for a $1.1m council investment in grants and amenity upgrades, the city has leveraged $52m in private investment. With the uplifted amenity of the area property market views have shifted, and now highly value the heritage buildings, finding them attractive as both office and residential spaces. Once derelict heritage buildings, now offer high quality and high commercial returns. Tourism opportunities have been increased and the district as a whole is providing a high-profile opportunity to market the city.

Specific outcomes include:

- Numerous buildings dating back as far as 1888 (some vacant for up to 10 years) saved and tenanted through the re-use grants scheme for earthquake strengthening and facade improvements.
- Numerous new businesses, some of which are entirely new to Dunedin.
- A hotel in the formerly vacant historic post office with an associated car parking building.

- Several new apartment complexes.
- A pop-up theatre, and a pop-up urban winery to become a permanent business in the area.
- A micro-brewery, a chocolate maker, artist studios, several cafes and coffee bars.

Final Remarks

Dunedin Council's public satisfaction ratings have improved, partially because of the implementation of this strategy. In a mid-2016 survey residents ratings are; up by 6 points (to 87%) from the previous year for how Dunedin maintains and preserves its architectural heritage, up 7 points (to 76%) on how they see Dunedin as a creative city, up 13% (to 48%) on being satisfied or very satisfied that the City Council delivers overall value for money.

At the time the Dunedin mayor has labeled the strategy as "an inspirational vision and incisive strategic plan that illustrates urban design's relevance in these challenging times". Subsequently, it has proven to arrest the decay in an important part of the city, rescued buildings that attest to the city's history and identity, and stimulated investment. Public trust has, to a large extent, been restored.

At the core of the project was the charrette process which quickly crystallized complex (and often competing) needs and aspirations, into transformative and deliverable initiatives. This allowed momentum to be maintained, so that stakeholders could, within weeks, be shown their expectations had been met. Cynicism and dissent could be replaced with a forward-looking narrative, along with endorsement and enthusiastic support.

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Figure 5: Historic buildings renovated and repurposed for apartments, offices, and commercial uses at the ground floor. (source: Urbanismplus)

Figure 6: Historic buildings renovated for mixed and office uses facing the revitalized Queens Square. (souce: https://seethesouthisland.com/warehouse-precinct-dunedin-new-zealand)

Figure 7: Street art the Warehouse Precinct.; a mural at the entrance to a parking lot. (photo by the author)

The New Walkability, Post-COVID 19

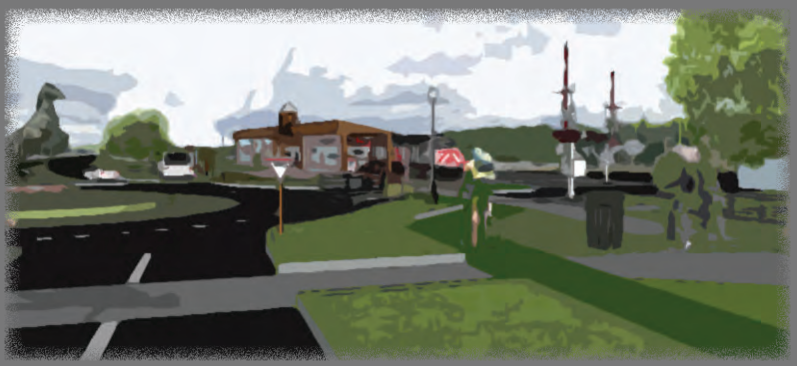
by Simon Taylor

Simon is a designer, visual artist, and cartoonist from Curitiba, Brazil where he lives and works as a graphic editor, illustrator and cartoonist. He works for several Brazilian newspapers, published three books with his work, and has featured in several public exhibits in Brazil. Simon is an avid urban sketcher and is the current president of the Brazil chapter of Urban Sketchers International. Simon did this wonderful cartoon specially for FOCUS.

See Simon Taylor's work at www.simontaylor.com.br

FOCUS 17

CRP Faculty and Student Work



A Typology of Outdoor Learning Environments at University Campuses: A Cal Poly Design Case.

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Elizabeth Farin
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Outdoor learning environments can enhance the university campus environment, socially and academically. Through a study of Cal Poly's campus, the authors– explore the need for such spaces (the why question), propose a variety of typologies that can be considered (the what question), and a series of design ideas (the how question).

The 'Why' – Benefits of Outdoor Learning

The traditional perception of a classroom with four walls and multiple rows of desks is changing. There is no secret that online learning has and will continue to change higher education and the perception of "place" in higher education. Another force in changing the meaning of place comes from the new paradigms in teaching and learning. Learning environments that encourage active learning and student-centered pedagogies are forces of innovation in classroom and campus design. Finally, the COVID pandemic prioritized outdoor spaces for indoor spaces. Amid these changes, it worth looking at outdoor learning environments. Many studies encourage the use of outdoor spaces specifically as learning environments and redefine what it means to be a 'classroom' (Banning and Strange, 2001; Bell, 2009; Kennedy, 2011; Kollie, 2015; Goertz, 2015; Wilson and Hajrasouliha, 2018).

Although it's not common for campuses to formally dedicate an outdoor space to teaching and learning, such activities happen informally throughout the campus. Figures 1 to 4 depict different types of teaching and learning activities on campus in an informal manner. A group discussion while sitting on the grass (Figure 1), a person giving a lecture using a movable chair (Figure 2), group studying on concrete steps (Figure 3), and students exhibiting art projects in a semi-closed space (Figure 4). Examples are beyond these four images. The question is how universities can plan for such informal activities on their campus, and possibly add some to formal and preplanned activities to maximize the benefits of outdoor learning? Before addressing the "how" question, let's start with the "why".

We have categorized the benefits of outdoor learning environments into 6 factors: Social Aspects, Active Learning, Interdisciplinary Learning, Restorative Benefits, Marketing, and Environmental and Financial Sustainability.

Social Aspects

Outdoor learning environments on college campuses allow students to interact in a public space, where they can see and be seen by other students outside their cohort. This will increase the possibility of collaboration and "creativity in education" (Goertz, 2015). These spaces must meet the needs of the general public and university community to succeed but also remain versatile, adapting to a variety of academic and non-academic uses. In that case, outdoor learning spaces increase the possibility of formal and informal social interaction among students and instructors. They serve as a fluid social space for students and professors to converse when walking to class or meet in a plaza for a quick discussion. Such spaces have the opportunity to serve as the "in-between space of the college experience" and can be defined by the students. In other words, such spaces are the "social glue" needed on campuses (Worpole, 2007).

Rouse, the author of 'College Struggles with Social Space', argues that social spaces are missing from campus design. While the definition of social spaces varies, the administrators at Harvard recognize that students have a "broad range of needs in terms of social spaces" and the current University Union type spaces are falling short (Rouse, 2011). An outdoor learning environment can fill this gap.

Note: This article resulted from Elizabeth Farin's senior project at Cal Poly under the supervision of Dr. Amir Hajrasouliha. The full report is available from https://digitalcommons.calpoly.edu/do/search/?q=Elizabeth%20Farin&start=0&context=889265&facet=

Figure 1: Group discussion on the lawn in front of the library.

Active Learning

Classrooms are beginning to bleed out into the natural spaces around them, "effectively bringing the classroom outdoors, forming a holistic learning experience" (Banning and Strange, 2001). These new outdoor spaces are more active and create a greater opportunity to achieve the purpose of learning for higher education (Kelly-Salo, J., & Mellard, J., 2018).

Banning and Strange argue that using alternative learning environments, such as the outdoors, helps students learn to adapt to their environment much like they would in any non-academic setting (Wilson, page 7, 2018). The design of these outdoor learning environments must offer "features that will challenge students toward active learning, growth, and development" (Banning and Strange, 2001). These unconventional spaces offer restorative effects while creating a collaborative space for students to learn and grow academically.

Figure 3: Using concrete steps to study.

Figure 2: In an outside presentation, the teacher uses a movable chair, and the audience either sit on the grass or stand.

Interdisciplinary Learning

As these outdoor learning environments become a commonplace for social interaction and active learning space, students from various disciplines will have the ability to collaborate and learn from each other. Expanding the student's academic and social circles promotes the overall engagement of the campus community, in turn increasing the potential for interdisciplinary learning. Outdoor learning environments can serve as interdisciplinary educational spaces for group studying, class projects, and informal interdisciplinary learning to occur, bene ting both the students and professors.

Outdoor learning environments do not have to be exclusively used for educational learning, they can also serve as a community space that promotes campus activities and human contact across the entire campus. The implementation of outdoor learning environments can serve as a second, third, or fourth smaller social hub for similar activities. Creating a smaller,

Figure 4: Using a semi-closed building atrium to display art projects.

more defined space for events and activities to occur allows the university to have multiple centers for collaboration, extending the boundaries of social interaction.

Restorative Benefits

Designing outdoor learning environments in conjunction with other elements of the environment such as trees, water features, or green vegetation, establishes trust, and provides restorative benefits (Whyte, 2001). Being surrounded by natural elements allows the users to feel at ease, reducing their mental fatigue (Speake et al, 2013). Overlapping canopies, green vegetation, and comfortable seating help establish an environment that is both compelling for to study in and one that is a sheltered, restful space to accommodate spending long periods of time.

Spending time outdoors for recreational and academic purposes can reduce stress, increase concentration, and promote a healthy and active lifestyle (Goertz, 2015). Similarly, outdoor learning has comparable health and well-being benefits. Not only are outdoor learning environments improving the student experience, but they are also expanding the way teachers teach.

Marketing

According to the Carnegie Foundation, "60% of prospective students consider the visual environment as an important factor when choosing a college" (Gaines, 1991). Outdoor learning environments have the opportunity to create an environment that is aesthetically and socially pleasing, to the current and prospective students (Gaines, 1991). Students are attracted to outdoor spaces because these spaces allow for freedom of use (Kollie, 2015). Giving students the freedom to make that choice allows prospective students to imagine themselves using that space for years to come. Additionally, this space must be unique, significant, and memorable for students and visitors to associate this learning environment with an attractive and lively campus. In doing so, prospective students, and their parents, notice the active college life and establish an emotional connection to the university's campus as a whole.

Environmental and Financial Sustainability

Outdoor environments are less expensive to build and have a lesser impact on the natural environment when compared to the construction of a traditional classroom on a university campus. The overall design, use of materials, construction, and implementation of the outdoor learning environments consider the financial sustainability of an institution as well as the environmental effects.

Environmentally sustainable benefits can occur when considering the use of eco-revelatory design or "a design strategy that attempts to enhance site ecosystems as well as engage users by revealing ecological and cultural phenomena, processes and relationships affecting a site" (Kollie, 2015). Applying these principles to outdoor learning environments will link the social aspects and benefits of outdoor learning environments with the restorative benefits of nature.

The 'Why Not' – Considerations When Designing Outdoor Leaning

Unpredictability of Climate

When studying, speaking with a group, or attending a small class outside, the weather can be unpredictable, therefore inhibiting your ability to learn and can affect your desire to stay in that place to complete your work. The design of the outdoor learning environments needs to minimize the weather-related effects that the user or group learning outdoors might experience.

Environmental Distractions

When studying outdoors, there can be many distractions such as the sounds of students passing by or the rustling of the trees nearby. The outdoor learning environment must be designed in a way that both protects the user from common distractions and allows the user to feel comfortable while learning outdoors.

Scheduling Complication

Traditional indoor classrooms are scheduled using a computerized system, with signs next to the door of the room informing people passing by who is occupying the space. With the outdoor learning environment, it could be difficult to schedule the space for certain classes and activities and requires revising the scheduling system. In the case of scheduling outdoor spaces, the threat is excluding the use of space for the larger population or discouraging the use of space during unscheduled hours. The best option is to diversify the outdoor spaces with some free-to-use space and some that can be scheduled.

The 'What' –Typologies of Outdoor Learning

To simplify the typology of outdoor learning spaces, we considered only two key characteristics of outdoor spaces: size and location.

According to their size, the outdoor learning environment were divided into large and small spaces. Regarding their location, we considered if the outdoor learning environment is on or off a main, frequently traveled pathway. We labeled the spaces on the main pathways, "active" space, and those off the main paths "discovered" space. Many other physical attributes, including the presence of greenery, or shades, and seating

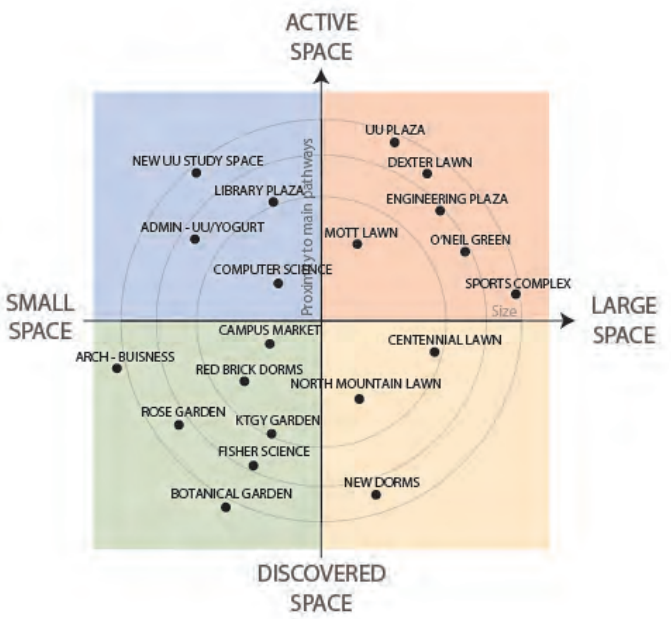


Figure 5: Diagram depicting the typology of outdoor learning spaces at Cal Poly.

Figure 6: Location of the four types of outdoor learning spaces at Cal Poly.

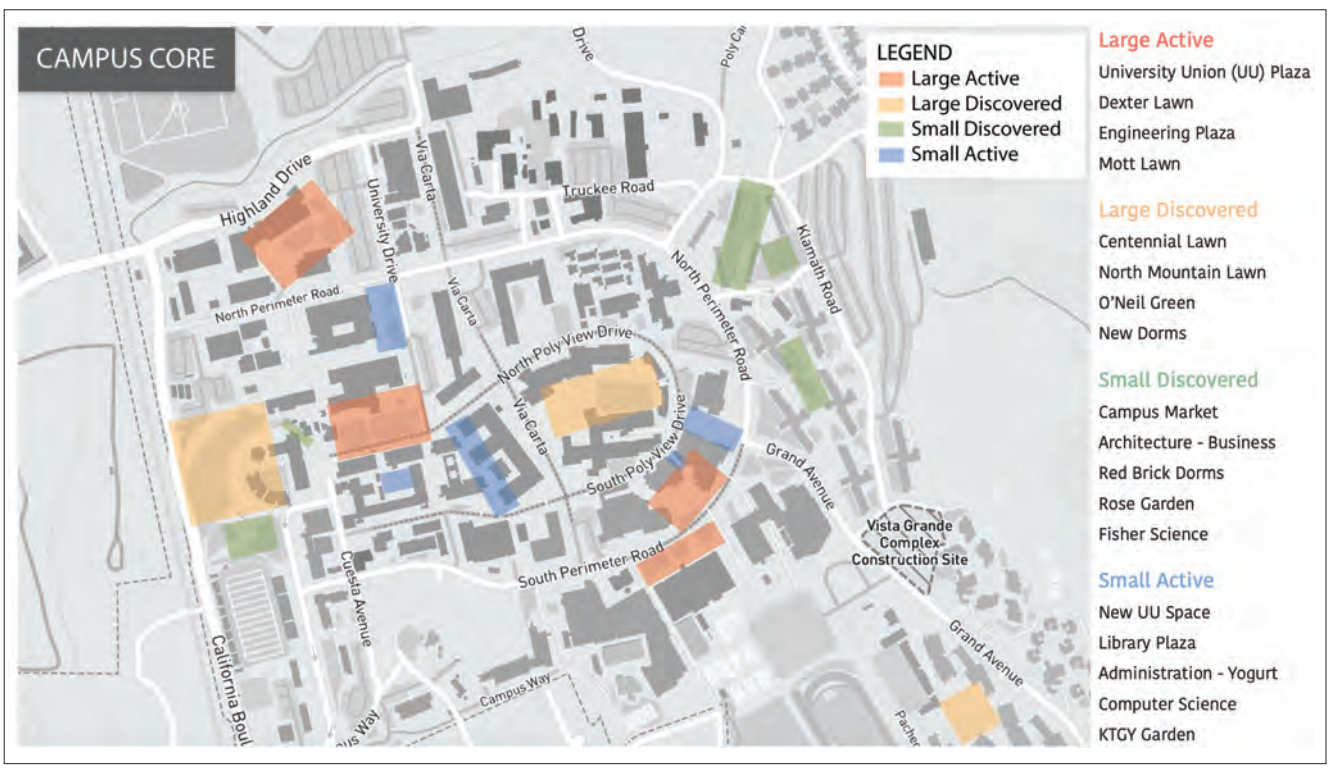
could have been included. However, the two attributes of size and locations are more permanent attributes, and less likely to be changed over time. Therefore, using these two attributes can provide a reliable base for categorizing campus open spaces for planning purposes.

Typology

Based on these two factors, the four space-types are: Large Active, Large Discovered, Small Discovered, and Small Active. These four learning space types can be placed on a quadrant diagram that accounts for the two factors. Figures 5 and 6 show the location and typology of outdoor spaces on Cal Poly campus that has the potential to be a learning space.

This diagram shows a relatively equal distribution of space-types at the Cal Poly campus, and it is expected to see a similar pattern in other large university campuses. Through mapping potential and existing outdoor learning environment at Cal Poly, it is evident that active learning spaces are almost always located in the academic and social cores of campus. Discovered spaces, both large and small, are located either on the peripheries or in between buildings, away from the main pedestrian movement on campus.

Each space-type includes a list of activities that can support it. That's the quality that James Gibson (1979) called the "affordance" of the environment or "action possibilities".



Affordance characterizes the suitability of the environment to the observer for certain activities. The affordance of outdoor environments for teaching and learning should be considered in the design and planning process. While some activities may overlap, certain activities are specific to each space-type.

Space-types and learning activities

1. *Large Active* – Large active areas use the surrounding structures and the landscape to define the campus and create a collaborative environment. These spaces are commonly referred to as a Quadrangle, Yard, or Lawn and provide an open space for large gatherings or campus events. Located in the academic core or near academic or student union spaces, large active areas include elements such as grass, public art, and seating.

   Suitable Activities: Large events, campus gatherings, class meetings for interactive courses, group study, interdisciplinary study/project space, gallery and exhibition, individual reflection, people watching.

2. *Large Discovered* - Large discovered spaces encourage restoration and reflection, providing a quiet space to study or relax in between classes. Natural landscape elements such as large canopy trees, native shrubs, leafy vines, water falling, or a small pond, defines the space. Screened from noise and distractions, these spaces are hidden and off the main pathway. These spaces may be located in various spots around campus and are considered restorative places.

   Suitable Activities: group study, quiet and secluded individual or partner study, reading or reflecting space, class meetings, exhibitions.

3. *Small Discovered* - Small outdoor learning environments located on the main pathway are intended to accommodate individuals or small groups in a more removed area on campus. While being tucked away and close to or partially surrounded by nature, these spaces are quiet and intimate. These spaces utilize the landscape and natural elements to create a social but personal space, allowing the user to connect with the environment and feel comfortable using and learning in that space.

   Suitable Activities: Secluded and quieter individual, partner, or small group study space, small class or studio group meeting space, a place to present a project or a design charrette.

4. *Small Active* - These small learning spaces are designed to activate, develop, and enhance courtyards or building forecourts. Located on main pathways and integrated among student circulation in and around buildings, these small spaces are scattered throughout the campus and placed in areas next to academic buildings or student unions.

   Suitable activities: Collaborative and interdisciplinary learning, small group studying, partner or individual study space in between classes.

The How - Design Cases[1]

In this section, we establish a set of design principles, and illustrate design ideas for each space-type, using four outdoor spaces at Cal Poly. Four selected locations (Figure 7) are relatively close to each other and have the potential to support teaching and learning activities.

Large Active – Design Case: Dexter Lawn (Figure 8)

Design principles

1. Adaptable to both large and small activities and events.
2. Flexible to accommodate a wide range of activities including socializing, relaxing, teaching, and learning.
3. Should be seen as the face of the campus and a marketing tool to enhance the campus identity. Therefore, its imageability is critical.
4. Inclusive and is welcoming to a diverse group of students.
5. Integrates circulation and walkways into the design.
6. Utilizes a variety of natural elements for recreation and comfort.

The large active, Dexter Lawn is at the center of Cal Poly Campus. It is currently an adaptable space used heavily for a variety of activities including relaxation, socialization, and events. To promote the "affordance" of space for outdoor teaching and learning, we have suggested a transformation on about a third of the lawn and keep the rest as is. Our goal was to provide more teaching and learning opportunities and event spaces while keeping the adaptable nature of the lawn as much as possible. Figure 8 shows the plan and the section of the proposed design. Key features of this design include the use of a rolling seating platform, adding a stage, lighting, a permeable-paved surface, and foldable shading structures.

Large Discovered – Design Case: O'Neil Green (Figure 9)

Design principles:

1. Feel open but secluded and protected by buildings, trees, or structures, and it is located on the campus periphery.
2. Include various gathering options, and creative seating options such as swinging or hanging chairs, innovative ground seating, or for example, a large rock in a grass patch that has the opportunity to serve as a backrest.

[1] Design and illustrations by Elizabeth Farin.

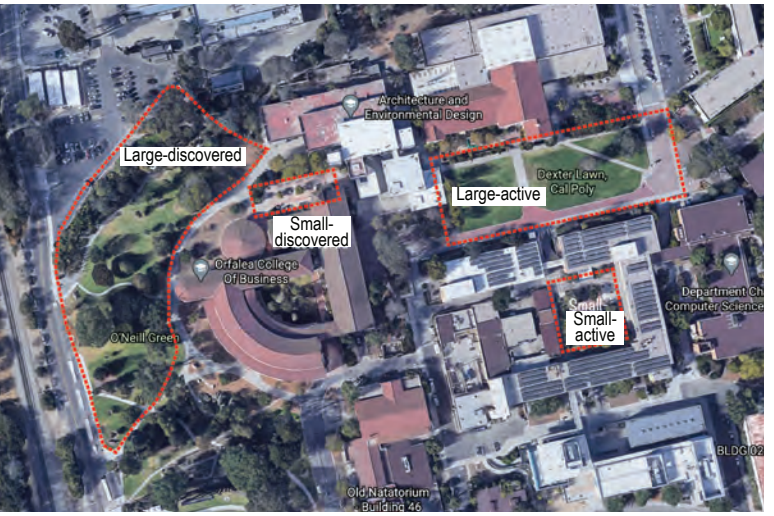


Figure 7: The four design cases at Cal Poly campus.

3. A model for sustainable development and sustainable campus life.
4. Include both smaller garden sections that are tucked away and spaces that are open and used for larger groups or as class space.
5. A variety of plants, natural colors, and shade trees near seating.
6. Divided into a large and smaller sections, for various uses.
7. Include smaller spaces for quiet study or reflection.
8. Well lit.

Small Discovered – Design Case: Paved area north of the College of Business (Figure 10)

1. A unique design or feature that is imageable.
2. Provide an "out-of-this-world" experience.
3. Incorporate natural elements allowing the user to feel secluded and safe.
4. Inviting and comfortable. The user can discover the space as a place to study and relax in a unique environment
5. Provide seating and tables in shaded areas at day time, and well-lit at night time.

Small Active – KTGY Courtyard (Figure 11)

Design principles:

1. Its should be both a social and academic hub.
2. Flexible to accommodate a wide range of activities including socializing, relaxing, and learning. Consider the addition of open learning nooks, or smaller, more personal spaces within the larger area.
3. Located in the central portion of campus and along frequently traveled pathways. If possible, along with or just off of a circulation axis. Space should be activated but still, feel personal.
4. Provide shade with either trees or shade structures. Therefore, consider trees that provide shade, while not blocking the views.
5. Make study spaces comfortable for the students, but appropriate seating, table, and electric plugs.
6. Space reflects the university's history and mission. The use of public art is recommended.
7. Space is well lit and includes lighting both on smaller pathways and around seating areas or learning nooks.

Final Remarks

This article explored the use of outdoor environments as learning spaces while addressing the why, what, and how questions. By discussing the importance of outdoor learning spaces, categorizing and creating typologies for higher education campus outdoor learning spaces, and creating design principles and design examples of these learning environments, this article will pave the way for the design of future Outdoor Learning Environments.

We acknowledge that we have not thoroughly discussed the use of campus outdoor environments as academic settings. But we are hoping to inspire other scholars and practitioners to explore this opportunity. No time seems more appropriate to recognize the importance of outdoor spaces on campuses than the current time when universities are struggling to stay open during the COVID-19 pandemic. The pandemic has already cost universities millions of dollars, and campus outdoor spaces, for more moderate climate locations, such as California, can be a hidden asset to their resource problem.

Listening to and observing how the students interact with current outdoor environments should be considered when designing future Outdoor Learning Environments. The design of the space should support the uses or activities of the particular outdoor environment. Additionally, it is important to collaborate with campus planning and university administration to discover what events or activities the university as a whole would like to host in each specific location. Identifying and partnering with various university units throughout the research and design process will result in an Outdoor Learning Environment that is suitable for multiple modes of teaching and learning and frequently used by students across the university.

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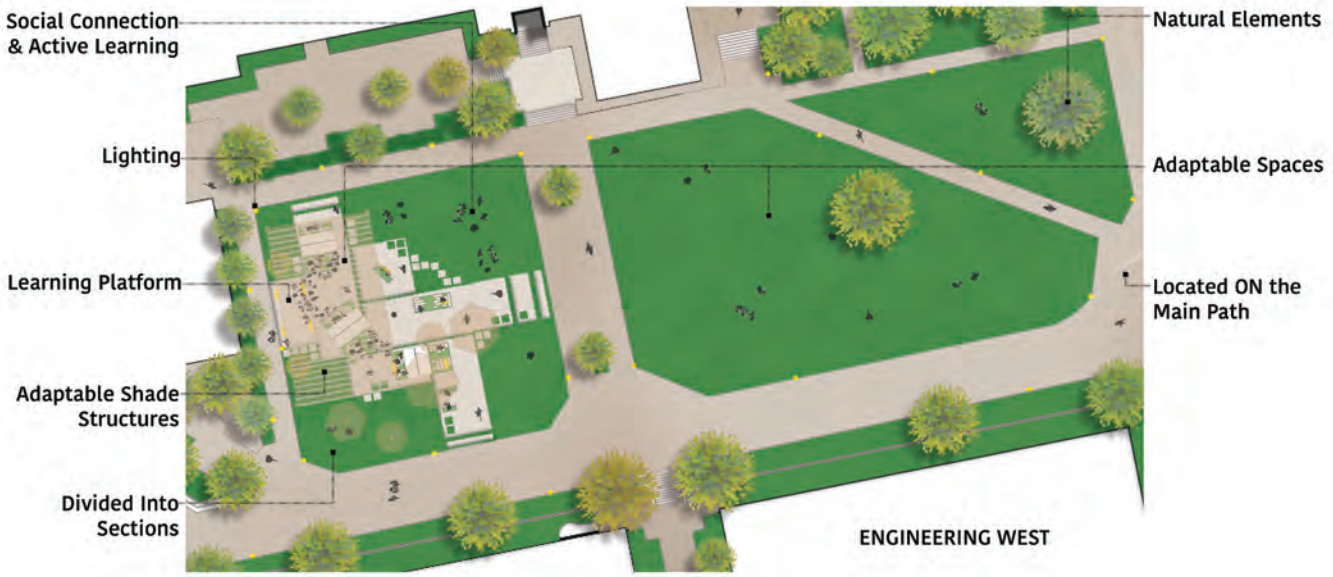
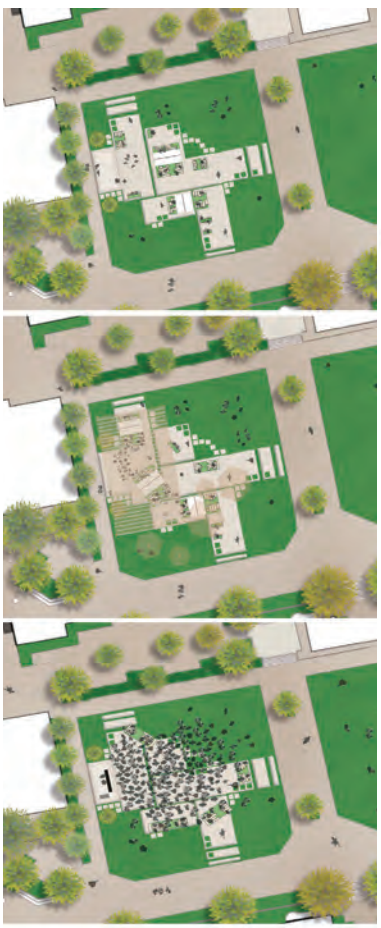
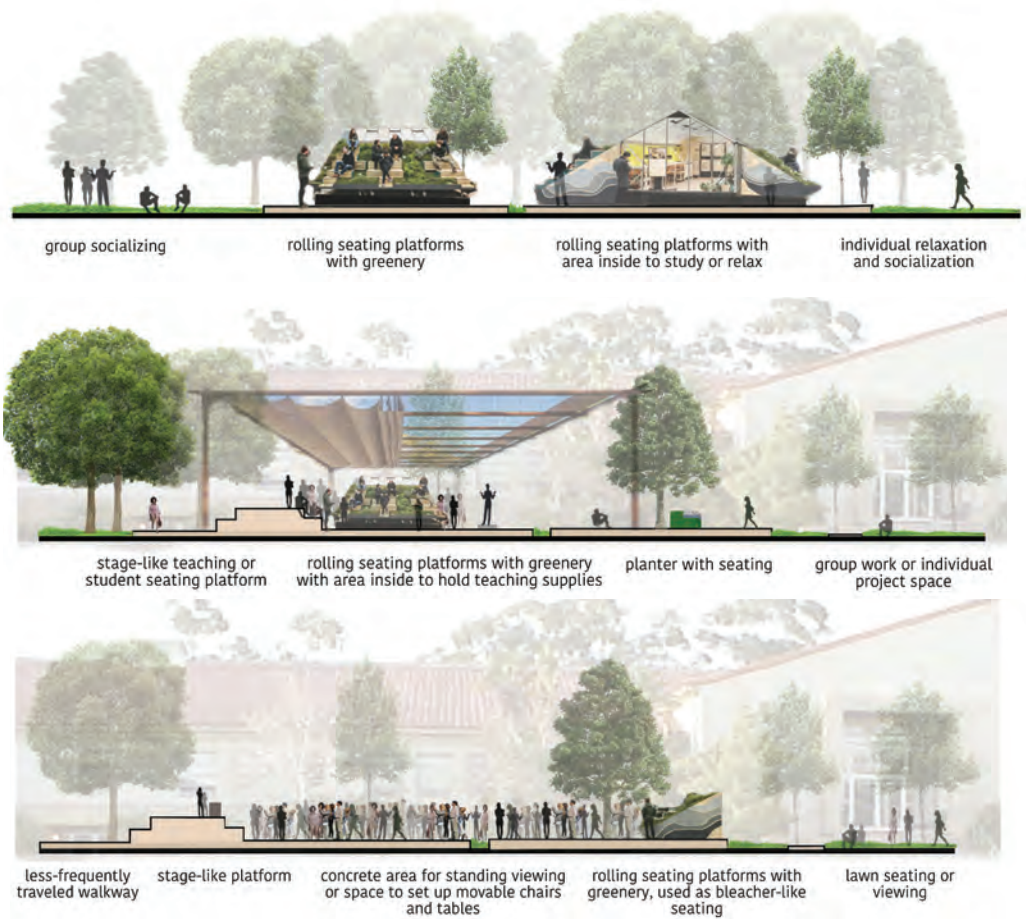


Figure 8: Large Active; Design idea for Dexter Lawn.

Above: Site plan (above)
Below: 3 use scenarios, from top to bottom: movable seating platforms, foldable shades, and permeable-paved area for events and concerts.





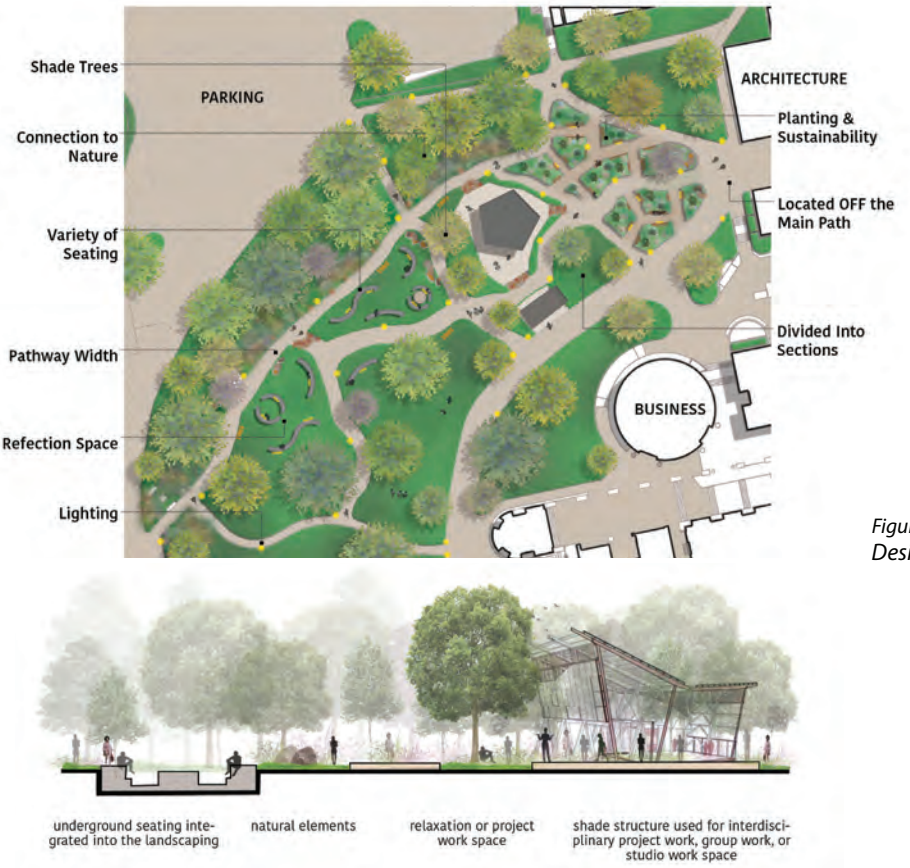


Figure 9: Large Discovered; Design idea for O'Neil Green.

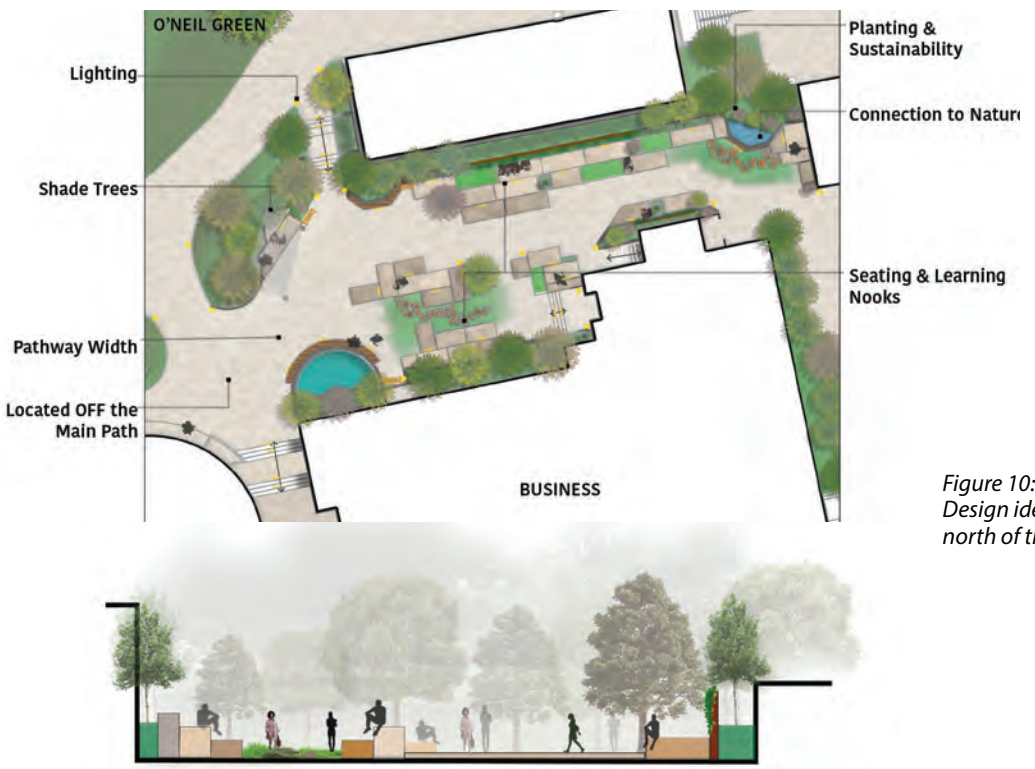


Figure 10: Small Discovered; Design idea for the paved area north of the College of Business.

Figure 11: Small Active; Design ideas for the KTGY Courtyard.

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National Park Cities: A Case for San Luis Obispo

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The current environmental movement has led to the vision of National Park Cities, which gained traction in the United Kindom after London was the first city to adopt it into its planning policies. In this article, Erik Valentine discusses the movement's goals and charter, and develops a rationale and a series of ideas for transforming San Luis Obispo into the first National Park City in the United States.

On July 22, 2019, London became the world's first National Park City. Just over a year from the idea's inception, the structural aspects of what it entails are still being formally worked out. However, this novel concept is more integrated into our traditional environmental planning notions than one might think and can be adopted for San Luis Obispo. Marked by years of a progressive approach to planning and an engaged community, the city is unique in respecting the natural environment and expanding environmental preservation and recreational opportunities. Becoming a National Park City would not only be an obvious result of these efforts but would make San Luis Obispo the first one in the United States and project it to the frontline of an important international movement.

The Environmental Movement

Environmentalism and planning go hand in hand, with a long list of historical figures that have left a mark on our contemporary practices and environments, both urban and natural. In the United States, perhaps no one left an impact quite as distinguishable as the Scottish-American ecologist John Muir, whose journals led American minds across the country to a reverence for nature when travel was a delicacy available only to a select few.

Muir worked directly with President Theodore Roosevelt to identify natural lands to be designated as National Monuments under the American Antiquities Act, passed in 1906. The Antiquities Act gave the President the direct authority to declare "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest," situated on lands owned by the federal government as National Monuments, lawfully preserving them to protect both nature and artifacts (American Antiquities Act, 1906). Roosevelt took full advantage of this legislation, preserving 230 million acres of public lands during his presidency (National Park Service, 2017).

Another prominent figure in the American environmental movement is Rachel Carson. Her groundbreaking novel, Silent Spring, in 1962, enlightened the American population to the deadly effects of increasing industrialization and starting a fire of environmental reform (EPA, 2017). This fire of reform played a direct role in the United States Environmental Protection Agency's foundation, or EPA, under President Nixon just eight years later in 1970 (EPA, 2017). California, the setting for the National Park City proposal in the latter portion of this project, has gone even further with its environmental regulations.

After the federal government passed the National Environmental Protection Act in 1970, the California State Assembly "created the Assembly Select Committee on Environmental Quality to study the possibility of supplementing NEPA through state law" (Association of Environmental Professionals, 2016). Their report, the Environmental Bill of Rights, would lead to Governor Reagan to sign the California Environmental Quality Act statute in 1970 (Association of Environmental Professionals, 2016). CEQA, as it is commonly known, is the first case of a state creating its own "mini-NEPA," and was passed to "identify and reduce the environmental impacts of new state projects, attempting to expand the factors balanced in decision-making, and add environmental goals to economic and social goals," (Association of Environmental Professionals, 2016). Today, CEQA carries more regulatory authority than NEPA, as it was expanded "during the 1970s to include all California development proposals - public or private – that are subject to the discretionary approval of a public agency" (Association of Environmental Professionals, 2016). CEQA requires more scrutiny and mitigation factors than NEPA and

Note: This article resulted from Erik Valentine's senior project at Cal Poly under the supervision of Dr. Vicente del Rio. The full report is available from https://digitalcommons.calpoly.edu/crpsp/205/

is widely considered the most intense piece of environmental legislation in the country (Association of Environmental Professionals, 2016).

Environmentalism in Planning

Environmentalism has a long history in urban planning as well. Some early influences include figures like Ebenezer Howard, whose 1902 essay Garden Cities of To-morrow was the base for the new towns movement around the concept of the three magnets that drew people to different aspects of life, "town, country, and town-country" (Howard, 1946). Howard recognized the human need for natural spaces in their urban environments, both for recreation and agriculture.

Another critical environmental figure in urban planning and landscape architecture is Frederick Law Olmsted, widely known for his work that revolutionized the idea of parks and introduced the importance of creating connections between parks, or greenbelts, throughout cities (Rome, 2017). His belief that parks have a "harmonizing and refining influence" on people became key to urban planning principles (Rome, 2017).

Ian McHarg was another very influential professional in the environmental planning movement. He believed that "knowledge should guide action" and that this should result in "better housing, more open space, more efficient transportation systems, and, in the end, healthier and safer communities" (Steiner, 2004). Through his 1960s television show, The House We Live In, and his 1969 book Design with Nature, McHarg introduced a new planning methodology based on the organization of environmental data into regional maps that could be layered on top of each other for a comprehensive assessment of the areas most and least suitable for development. Although the depth of his contributions to planning is not fully credited, McHarg's map layering technique broke the ground for today's geographic information systems, or GIS, that planners rely heavily on for environmental impact reports and assessments (Steiner, 2004).

It is essential to understand the history of environmentalism across society and in specific regards to planning before we can understand how the novel concept of National Park Cities came to be and the impact that it might have. The National Park City movement and its founder, Daniel Raven-Ellison, have the opportunity to be included in the next chapter of the history of great environmental movements.

London as a National Park City

As it stands, only one National Park City officially exists in the world today. London became the first to achieve this mark on July 22, 2019, when Mayor Sadiq Khan signed the London National Park City Charter at City Hall. To celebrate, the London Assembly held a festival that lasted nine days, called the National Park City Festival. The Assembly estimates that more than 90,000 people enjoyed 317 free events, made possible by more than 800 volunteers (London National Park City, 2020). The Assembly also cites a study that estimates London avoids around "£950 million per year in health costs due to the benefits Londoners gain from using green spaces" (London National Park City, 2020), which translates to more than $1.2 billion. The creation of the London National Park City has resulted in countless social, environmental, and economic impacts like this one. This section will take a further look at these interrelated impacts, the events that led up to the foundation of the world's first National Park City, as well as what cities might be the next one to achieve this status.

While the campaign to make London the world's first National Park City drew inspiration from environmental movements dating back to the 19th Century, the specific question, "what if we made London a National Park City?" was first asked by founder Daniel Raven-Ellison in 2013 (Timeline, 2019). The official campaign to make London an NPC started in 2014 with the creation of a simple website acting as a guide to what the National Park City Foundation then called the Greater London National Park, with a note explaining it was "officially only a notional park" at the time (Timeline, 2019). The campaign's first official event was held in 2015 at London's Southbank Centre. The 600-plus people who attended the event were asked to reflect on the question, "What if we made London a National Park City?" (Timeline, 2019). By the end of the event, nine out of ten attendees polled said that they support the "idea of a London National Park City," and 347 individuals and organizations contributed "towards a crowdfunded and collaboratively written proposal for the 'Greater London National Park City,'" (Timeline, 2019).

The movement received a significant boost in 2016 when all of London's mayoral candidates announced their open support of a London National Park City (Timeline, 2019). Meetings and events like this continued to be held throughout the next few years, while official campaigners spent time securing "support across the capital by writing emails, organizing events and giving talks" (Timeline, 2019). By the end of 2017, more than 1,000 local politicians from each of the City's main political parties had given their support to making London a National Park City (Timeline, 2019).

Years of hard work and campaigning came to fruition when, in March 2018, it was officially announced that "the majority of the city's locally elected politicians and the Mayor of London had declared their support" for the idea and that London would become the world's first National Park City (Timeline, 2019).

Later that year, London's Mayor, in partnership with the National Park City Foundation, announced a "National Park City Week" in the summer of 2019 when 300 events would be held across the city to celebrate the launch of the London National Park City (Timeline, 2019). The event became the nine-day long London National Park City Festival, a "celebration of London's outdoor spaces involving a broad range of activities, from culture and health and fitness to wildlife and the environment" (Timeline, 2019). London's National Park City Week was a due celebration for this historic moment in environmental activism history.

Implementation

The London Assembly states that, as a National Park City, London will be "a city which is greener in the long-term than it is today and where people and nature are better connected" (London National Park City, 2020). To accomplish this, the Assembly has identified four primary policy documents that will help guide London to realize this vision statement. The first is the London National Park City Charter, which sets the "visions, aims, and values" of a National Park City (NCPF, 2019). The Charter lays out each goal that the National Park City has for its future. London National Park City has seven goals, and all of them are related to the betterment of life in the City (Charter, 2019). These include working towards better "lives, health, and wellbeing," as well as better "relationships with nature and each other" (Charter, 2019).

The second document is the London Environment Strategy that sets policies similarly to a Sustainability Element in the California's general plan model. The document "sets out how a National Park City will protect and improve London's green infrastructure and natural capital, alongside other vitally important environmental objects such as improving air quality and becoming a zero-carbon city" (London National Park City, 2020).

The third document that the Assembly has identified is the London Plan. Essentially, this document is equivalent to a general plan of a city in California. The Plan "includes policies on protecting the Green Belt, parks and natural habitats, and greening buildings and the public realm so that development contributes to an environmental net gain" (London National Park City, 2020). The plan is updated regularly in intervals ranging from two to four years. In future updates, it will make specific references to how the Mayor and planners are implementing sustainable policies following the London National Park City Charter and vision statement (London National Park City, 2020).

Lastly, the Mayor's Transportation Strategy lays out how the City plans to invest in cycling and walking infrastructure, promoting healthy streets and active transportation (London National Park City, 2020). London's local government realizes the potential that transportation has to affect the city's shape and uses a Healthy Streets Approach to "prioritize human health and experience in planning the city" (London National Park City, 2020). More details on all of these documents can be found in my expanded Senior Project.

Impacts: Social, Environmental, Economic

Social

A significant social impact that the National Park City title is hoping for London at this early stage has to do with changing the paradigm through which Londoners see their urban landscape. Hopefully, the projects and events around London will get peopling thinking of the built environment as an extension of the natural environment, rather than something existing at odds within it.

An excellent example of this attempted paradigm shift is the Greenground Map, designed by graphic designer Helen Ilus. Taking inspiration from the classic London Tube map, the Greenground Map acts as an alternative sustainable transport map. Instead of the usual human-made features of a normal transportation map (such as buildings, streets, and monuments), this map depicts the green infrastructure around the stops, such as parks, ferry piers, and even kayaking and swimming spots (Ledsom, 2019). In addition to replacing the names denoting stops, a green line indicates the connections between parks that could be walked and cycled. So far, the map already includes "300 parks and 12 green and blue lines" (The Greenground Map by Helen Ilus, 2019). The NPCF explains that the map is "mostly an experiment to represent London's green spaces as accessible… for Londoners, inspiring them to take alternative, green routes for commute or leisure" (The Greenground Map by Helen Ilus, 2019). People may not know that such green and sustainable routes exist, and the Greenground map raises awareness of some of the transportation modes that a National Park City has to offer, changing the way they view their urban landscape.

Environmental

The creation of London National Park City has had a tremendously positive effect on the natural environment, both within the City and around it. However, less than a year away from the NPC's birth, data that includes specific statistics about environmental benefits like better air quality, fewer greenhouse gas emissions, and reduced waste have yet to be recorded. Reliable data that provides an accurate depiction of the environment will take years to accumulate.

In the meantime, London National Park City's environmental impact can be measured by projects that have already been implemented or are in the pipeline. The City has already established a new swimming lake, a 23-kilometer bike path, a pristine wetland within the City, and 18 hectares of riverways for wildlife and recreation (Ledsom, 2019). New open spaces and recreational opportunities like these are meant to emphasize that not only is it home to "8.6 million people, London is home to more than 8.3 million trees and 14,000 species of wildlife" (Ledsom, 2019). Londoners are starting to think of their city as more than a place just for people but also as a sanctuary for urban wildlife. London is already estimated to have around 3.8 million gardens within its borders, covering about 24% of the City (Ledsom, 2019). New policies put in place by London's National Park City status will preserve these parks and create opportunities to create more parks from existing open and vacant land, rather than to see them dedicated to parking lots .

While meaningful environmental data might not be available yet, the National Park City Foundation plans to conduct a thorough research and release a State of the National Park City Report that will "be a way to track collective progress toward achieving" their goal to "make life better in cities," (FAQ, 2019). The report will "reveal data that relate to the National Park City's objectives" and "will be used to inform the London National Park City Partnership's progress, decision making, and activities" (FAQ, 2019). Some of the categories to be covered include air quality, biodiversity, local food growing, volunteering, water quality, outdoor learning in schools, community engagement, and critical mental health outcomes (FAQ, 2019). In addition to reports for each National Park City, a separate State of the National Park Cities Report will be compiled to "track progress within and between cities" (FAQ, 2019).

Economic

Being a National Park City has had an impact on London's economy in several ways. After officially declaring London a National Park City, Mayor Sadiq Khan further contributed to the movement's success by creating Greener City Fund with £12 million for projects that will help achieve London's goal of having more than half of its area being considered "green" by 2050 (Greener City Fund, 2019). So far, the funding of a few significant projects has guaranteed the accomplishment of this goal. Since 2017, Community Tree Planting and Green Space Grants have granted nearly £5 million to more than 250 tree planting projects (Greener City Fund, 2019). The fund has also put £3 million into "major projects that bring a range of environmental benefits," which includes a £2.1 million Green Capital grant supporting six "large-scale green space projects" that stated in the summer of 2018 (Greener City Fund, 2019). Additionally, around £800,000 were allocated through the Good Growth Fund to nine projects aiming to increase the greening of the existing built environment (Greener City Fund, 2019).

The Greener City Fund has also contributed to London's urban forest, allocating £3 million to collect better data on existing trees and street tree planting and £1.5 million for new woodlands (Greener City Fund, 2019). So far, 40,000 trees have been planted through 34 funded projects during the winter of 2019-2020 alone (Greener City Fund, 2019). Additionally, this extensive Greener City Fund has contributed £1 million toward community engagement, working «with partners and Londoners on a range of community and public engagement programs including the National Park City Festival in 2019» (Greener City Fund, 2019).

Looking ahead: The future of NPCs

Soom after the National Park City Foundation's success with London, they were already looking towards creating more National Park Cities around the world. To help future National Park Cities, the NPCF has drafted a Universal Charter for National Park Cities as a starting point for fledgling NPCs (Future National Park Cities? 2019).1 This charter outlines clear goals and a general vision statement for each potential city and includes a brief section of information explaining what National Park Cities are and could be (Future National Park Cities? 2019).

The National Park City Foundation's Universal Charter define the following goals for a NPC:[1]

"We are working together for better:
1. Lives, health, and wellbeing;
2. Wildlife, trees, and flowers;
3. Places, habits, air, water, sea, and land;
4. Time outdoors, culture, art, playing, walking, cycling, and eating;
5. Locally grown food and responsible consumption;
6. Decisions, sharing, learning, and
7. Relationships with nature and each other."

The NPC Foundation website encourges people to sign in for the Charter and support the movement. Glasgow, Scotland has already been identified as the next strongest candidate to become a NPC. A Glasgow National Park City Group was created and signed the Universal Charter for National Park Cities, defining a set of goals and initiatives to help the movement gain traction among its residents and political leaders. These initiatives include establishing a strong online presence as the hub for the campaign and working "with partners to develop and encourage new National Park City demonstration projects" (Glasgow National Park City, 2019).

[1] See www.nationalparkcity.org

In England, Newcastle upon Tyne has potential to become a National Park City. According to James Cross, chief executive of Newcastle's Parks and Allotments Trust, "becoming a National Park City signals our commitment to make life better for people and nature" (Future National Park Cities?, 2019). The Trust has rebranded itself as Urban Green Newcastle and kick-started their campaign by securing the management of 33 parks and 61 allotments from the Newcastle City Council as it was struggling to fund the renovation and maintenance of the city's parks and open space, many of which established in the Victorian Era (Holland, 2019).

Galway, Ireland is another candidate for the National Park City title, having started its campaign in May 2019, just before London was announced as the world's first NPC in July. Led by "veteran environmental campaigner" Brendan Smith, Galway's movement focuses on the dire circumstances of global climate change and humanity's apparent tendency to become "disconnected with nature" at times (Corrigan, 2019). Galway is a city famous for its "two big pillars, technology, and the arts," and Smith wants to add a third pillar, being "green" (Corrigan, 2019). Galway National Park City would merge these three pillars, combining new recreational activities with environmental research programs at the Insight Centre for Data Analytics at the National University of Ireland, Galway (Corrigan, 2019).

The National Park City movement in Wales was officially launched on November 6, 2019 with a ceremony that included a speech by London National Park City's founder, Daniel Raven-Ellison. On that occasion, Raven-Ellison laid out in details about London's transformation into an NPC as an example of how the process might look in a Welsh city (The Launch, 2019). At the event, various panels discussed the potential of the cities like Swansea and Cardiff, and the possibility for a Valleys Urban Regional Park spanning over multiple urban centers in Wales's Valleys region (The Launch, 2019). However, the leaders of the Wales NPC movement have not yet officially selected a city that they will campaign for.

The NPCF has also paired with Adelaide, Australia as another potential candidate to achieve National Park City status. South Australia's Minister for Environment and Resources, David Speirs, spearheaded this campaign when he spoke at the National Park City Summit that launched London as the first NPC. The Adelaide movement got into way soon after the city hosted the second international forum on National Park Cities in 2019 (Future National Park Cities?, 2019).

San Luis Obispo as a National Park City

Although national parks are common in almost every country, in the United States they embody something unique and distinct. They are emblazoned in American culture, serving not only as a favorite recreational pastime but as a symbol of the United States itself in the minds of Americans and people across the globe. Perhaps this is best illustrated by American novelist and environmentalist Wallace Stegner who noted that national parks are "America's best idea" and as "absolutely American, absolutely democratic, they reflect us at our best rather than our worst" (Nagan-Powell, 2020).

America's obsession with its national parks has as much to do with its spirit and democratic values as it does with its history as a young nation. Europe, the setting of the world's first National Park City, is rich with historic buildings and other physical landmarks denoting centuries of progress. Meanwhile, the United States is still a relatively young nation without such a strong cultural collection, but with a much richer natural environment in pristine conditions. Accordingly, many early American writers and supporters of national parks compared places like Yellowstone and Sequoia National Parks "to cathedrals and monuments in Europe" (Nagan-Powell, 2020).

If Europe's historic humanmade landmarks are "testaments to the greatness of royalty and intellect," America's national parks are "testaments to the country's scale and spirit of independence" (Nagan-Powell, 2020). Furthemore, Europe's buildings represent "exclusion and wealth," whereas America's natural landscapes embody "democracy and wonderment" (Nagan-Powell, 2020). The reverence that Americans holds for their national parks reveals the true potential that the National Park Cities idea could have in the United States.

If the United States were to create a National Park City, I believe that San Luis Obispo would make a perfect candidate. Located on California's scenic Central Coast, the City's 46,548 residents are "proud of its natural setting" and take advantage of all the outdoor activities it has to offer (Natural Resources, 2020). These outdoor activities may include enjoying any of the city's 28 parks, 55 miles of hiking trails, 3,775 acres of open space in 12 distinct lands, and 41.2 miles of bike lanes, to name only few of its resources (City at a Glace, 2020). Additionally, San Luis Obispo is closely surrounded by several natural attractions such as Montaña de Oro State Park, the Morro Bay National Estuary, the Oceano Dunes Natural Preserve, the Nine Sisters mountain range, and more than 80 miles of beaches and coastline.

Outdoor recreation in all its forms provided by the City is also enjoyed by students of the adjacent California Polytechnic State University, San Luis Obispo, or Cal Poly. In the Fall of 2018, Cal Poly had a total enrollment of 21,812 students, bringing San Luis Obispo's population closer to 70,000 people during the academic year (Cal Poly Quick Facts, 2020). San Luis Obispo's relationship with Cal Poly and nearby Cuesta College has earned it the reputation of a great college town and the best in California (Clark, 2018).

The City of San Luis Obispo also prides itself on being one of the most sustainably minded and environmentally progressive cities in America. In January 2020, San Luis Obispo received the "Sustainable City of the Year" award from Green Builder Magazine for its small municipalities category because of the City's commitment to be completely carbon neutral by the year 2035 (Deegan, 2020). Carbon neutrality by 2035 is a lofty goal that the City has been contemplating for a long time, and when the decision to move forward with it was finalized in 2018 it became the first city in the nation to set a timeline for such an achievement (Climate Action, 2020).

One of the ways that San Luis Obispo is making strides towards achieving its carbon-neutral goal is through the implementation of a new 10,000 tree planting initiative, just announced by the City Council on December 3, 2019 (Johnson, 2019). Combined with other plans outlined in the meeting, this initiative is estimated to bring the City close to 70% of the way to its 2035 goal (Johnson, 2019). Through these initiatives and programs, City staff have shown their commitment to achieving the City's sustainability goals.

San Luis Obispo possesses several features and conditions that, combined, make it an optimal candidate to become a National Park City. Proximity to an abundance of natural landmarks and state parks, its mild climate, the strong tourist industry, a college population committed to environmental stewardship and activism, and a community and local leadership open to climate action.

A proposal for SLO

In brief form, this section discusses my proposal to make San Luis Obispo the first National Park City in the United States. Such a process involves drafting a charter for the city that reflects the goals of NPC Foundation's Universal Charter, in order to complement those in San Luis Obispo's General Plan. It will also involve creating design concepts on how to redevelop some parts of the city in a more sustainable way, as well as other ideas for green projects.

Goals

Reflecting the NPC Fountdation's Universal Chart (see section above), my proposed for a San Luis Obispo National Park City charter, will serve as a fundamental starting point to be addressed. When committing to becoming a National Park City, San Luis Obispo may have to be more specific with its goals and make them fit into the city's regional context. Here I see an opportunity to support more concretely the goals that the City already has established, such as being carbon neutral by 2035 and the 10,000 tree initiative. If the push to make San Luis Obispo a National Park City was an actual movement happening in real life, these goals should be developed through extensive public outreach and intense collaboration with all local environmental organizations. An exhaustive assessment of the local political and planning context led me to identify the following goals for my hypothetical model[2]:

Goal 1: A carbon neutral San Luis Obispo by 2035.

Goal 2: Increased accessibility and connectivity to parks and open space.

Goal 3: Residents as stewards of their environment.

Goal 4: A strong relationship with local wildlife.

Goal 5: A vibrant market for locally produced goods.

I believe that these goals will best serve San Luis Obispo in its regional context, supporting its existing vision for sustainability and creating more opportunities for people and wildlife to thrive on California's Central Coast.

Project Ideas

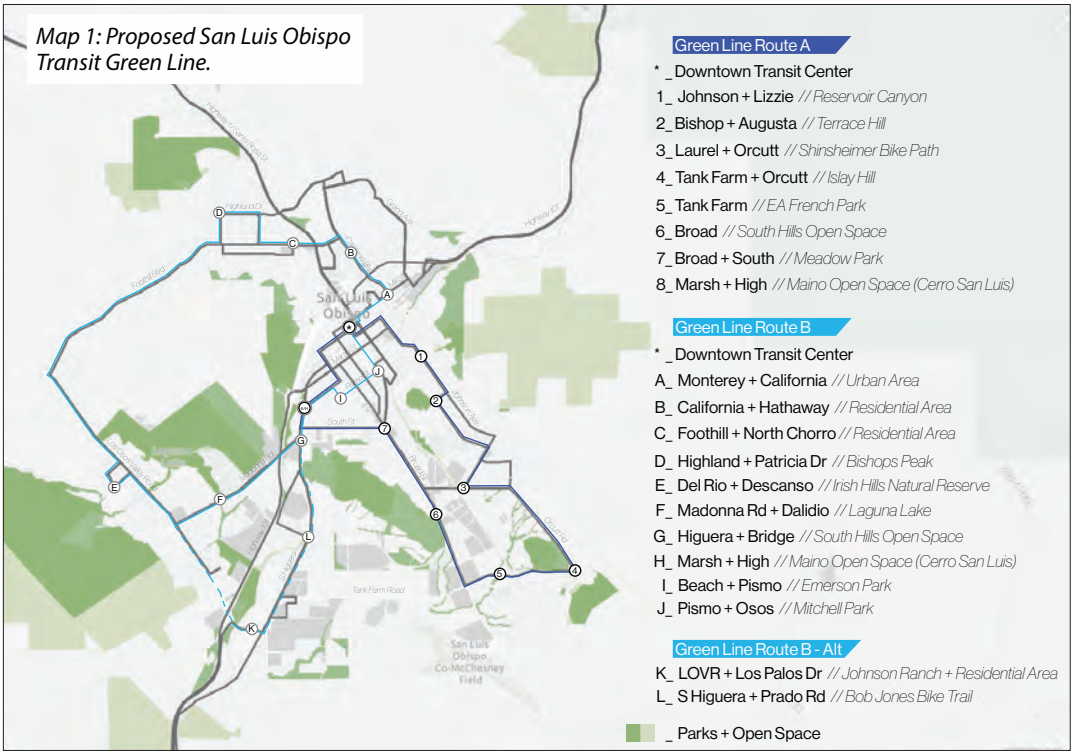
We can begin imagining San Luis Obispo as a National Park City by developing ideas with the potential to be fully developed into projects. Part of what has made London National Park City a success early on was the immediate support it received through capital improvement projects and other official greening efforts carried on by the city. These projects led to various significant social, economic, and environmental impacts that London has experienced thus far, and the same would happen here. The following are brief descriptions of the project ideas that I have envisaged for San Luis Obispo.

The SLO Transit Green Line (Map 1)

As previously discussed, London's Greenground Map was one of the earliest and most interesting carried out under the city's NPC flag. This idea inspired my proposal for a San Luis Obispo

Transit Green Line connecting residential areas to the city's system of parks and open space. SLO's Green Line would help eliminate total vehicle miles traveled to and from these spaces and contribute to the city's carbon neutrality goal. It would enhance accessibility to parks for both residents and tourists who may not have or chose not to use private vehicles. It would also serve to make residents more aware of their natural environment and encourage them to spend more time outside. In my Senior Project, I develop this project in more detail, including its phased implementation.

[2] Although in my senior project I did not have the opportunity to have community input, I am grateful for the input from Robert Hill, the Natural Resources Manager for the City of San Luis Obispo, when developing my model.



Map 1: Proposed San Luis Obispo Transit Green Line.

The 10,000 Tree Initiative (Map 2)

Another project that could help launch the San Luis Obispo National Park City movement would be to partner with state and local environmental organizations to accomplish the city's Carbon Neutrality Vision that the city council shared with the public in their December 3, 2019 meeting (Wilson, 2019). One of the vision's goal is to plant 10,000 trees in San Luis Obispo by 2035 to "help sequester carbon" and mitigate the effects of the city's greenhouse gas emissions (Wilson, 2019). As of yet, the City has no "specific recommendations for where and how to plant the trees" (Wilson, 2019).

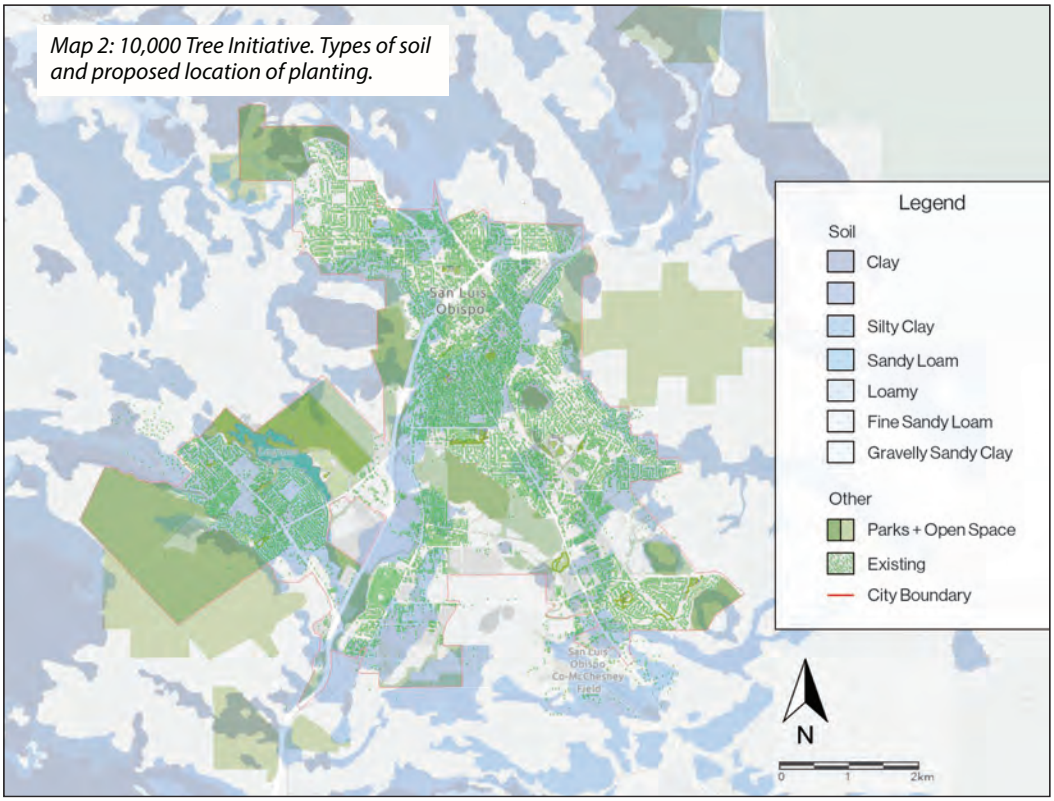
The 10,000 Tree Initiative is just one facet of the Carbon Neutrality Vision, which includes other initiatives that city officials believe will reduce current pollution levels by nearly 60% (Wilson, 2019). The plan also "suggests partnering with several local stakeholders, including environmental nonprofits," to get the project moving (Wilson, 2019). Including Cal Poly and the National Park City Foundation would be an important first step towards this goal. The initiative should start by an effort to survey the city's types of soil and the existing trees, identify the viable locations and sites for new trees, a typology of the best species for the different locations, etc.

The initiative announced by City staff indicates a desire for new trees in open spaces as well as in the city core city, and further studies are needed, particularly in more densely populated areas (Wilson, 2019). As loam soils have been identified as the best for plant growth because they allow roots to easily penetrate deep and reach water and mineral resources (Schaetzel), I have produced a map identifying areas with such type of soil in San Luis Obispo. Next, I identified their relationship to existing parks and open spaces, particularly those most likely to have the most space for larger amounts of trees (Figure.). This seems to provide a good initial indicator for prioritizing tree planting.

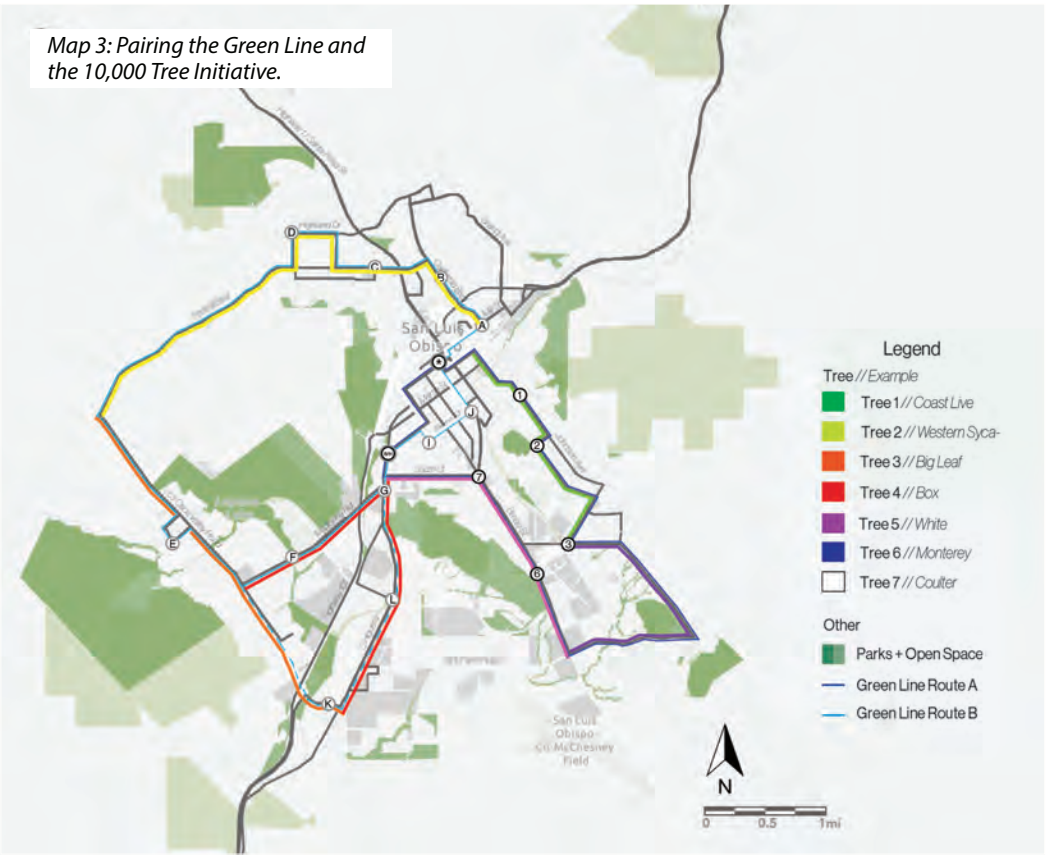
Pairing the Green Line and the 10,000 Tree Initiative (Map 3)

The San Luis Obispo National Park City movement would have the opportunity to pair these two projects and have them support and promote each other. For instance, the sidewalks along each route of the SLO Transit Green Line could feature a specific type of tree, providing the routes with distinguishing features, contributing to placemaking, and emphasizing the environmental objectives of the Green Line.

Pairing the two projects could also enhance the Cit's biodiversity. According to the California Native Plant Society, there are 32 trees native to San Luis Obispo (Calscape, 2019). By chosing different tree species for each route or neighborhood, the City would be integrating placemaking to an increased biodiversity, a healthier natural environment and wildlife, as well as added resiliency for natural disasters.



Map 2: 10,000 Tree Initiative. Types of soil and proposed location of planting.



Map 3: Pairing the Green Line and the 10,000 Tree Initiative.

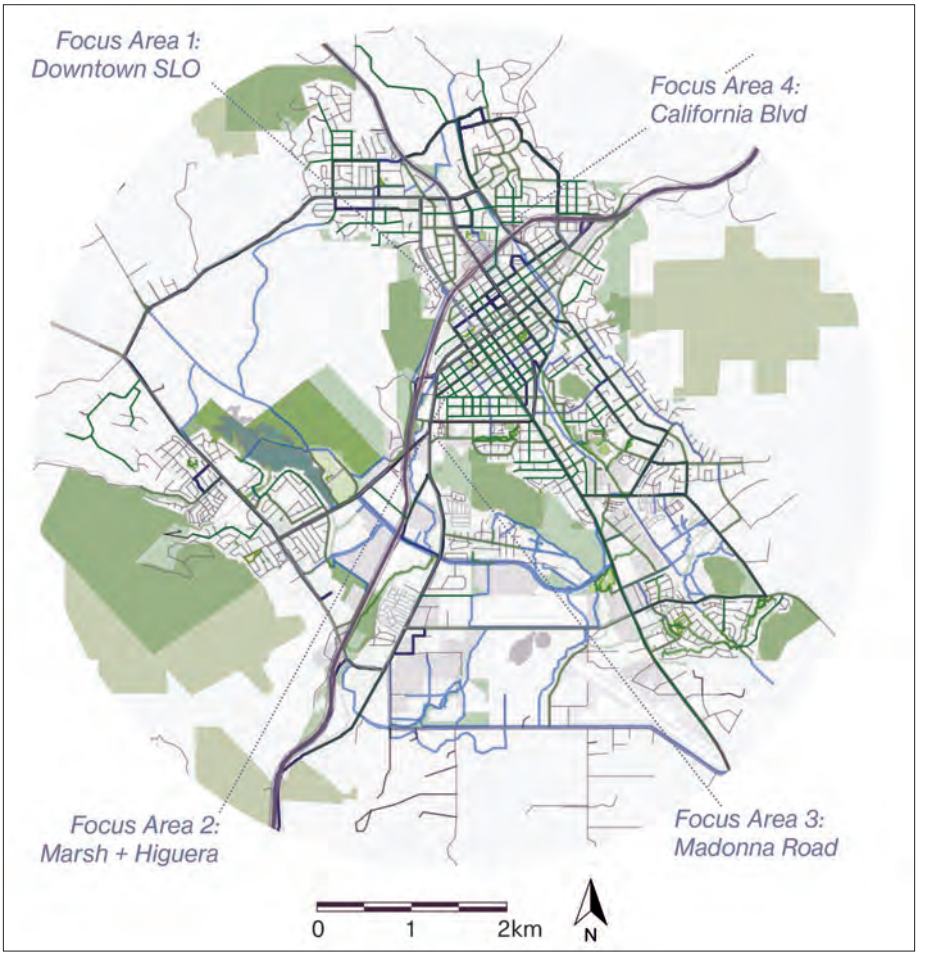
The Parkapelago (Map 4)

The third and final project idea that I propose for the San Luis Obispo National Park City movement is based on the concept of Parkapelago, developed by Terreform, a New York think-tank founded by Michael Sorkin. Inspired by Ian McHarg's writings and originally proposed for Upper Manhattan, the Parkapelago is a syestem of "parks, grassy campuses, playgrounds, landscaped housing projects, and cemeteries" linked by "physical, identifiable, and productive" connections between that "seek to increase the variety and accessibility of these green spaces" (Terreform, 2016). The concept can be easily adapted to any region or city, and could be effective in making San Luis Obispo a more sustainable place and a National Park City.

In the Parkapelago, a special emphasis is placed on pedestrian and bicycle circulation in an "interconnected system" of public spaces that conteracts the "penal relationship that corrals nature into zoo-like confinements" as traditionally planned in our cities (Terreform, 2016). In a Parkapelago, a pedestrian would "step outside and walk through green space for uninterrupted miles" and feel the minimization of "the false distinction between what is 'built' and what is 'natural'" (Terreform, 2016).

Researchers at Terreform believe that "transforming isolated sites into a pervasive network" will allow parks and the city as a whole to "increasingly be able to realize its own autonomy" (Terreform, 2016). In other words, through this expansion of public life and allowing communities to care for their own green spaces, "people will increasingly see the benefits of taking responsibility for the common spaces that provide them with opportunities and quality of life" (Terreform, 2016). The idea calls for a high level of public participation and stewardship in order to not only be a "circulatory appliance but a medium of production" (Terreform, 2016).

The Parkapelago concept fits into the San Luis Obispo National Park City vision and the City's sustainability goals, and blends perfectly with the two project ideas discussed above. Some of Parkapelago's proposed connections can be made through the proposed SLO Transit Green Line, with the native trees from the 10,000 Tree Initiative announcing its presence and blending the built and natural environments.



Map 3: The Parkapelago concept as applied to San Luis Obispo.

The new opportunities for sustainable mobility modes across the city contained in the Parkapelago concept will reduce vehicle miles traveled and carbon emissions, adding to the efforts towards a carbon neutral city.

The Parkapelago increases accessibility to parks and open spaces for all residents, promoting a more equitable use of these opportunities, and the linearity of the connections provide important linkages for natural habitats, strengthening biodiversity and the relationships between people and nature.

This system of interconnected parks and open spaces will provide opportunities for environmental stewardship among residents. Communities will take care of their new green infrastructure, and "increasingly see the benefits of taking responsibility for the common spaces that provide them with opportunities and quality of life," as mentioned above (Terreform, 2016). New green spaces in San Luis Obispo means more opportunities for small community gardens, where residents can learn to grow fruits and vegetables for their own use or be encouraged to participate at the city's Farmers' Market and other local food initiatives.

Final Remarks

The National Park City is a revolutionary concept that has the potential to change the way we think and plan our cities and their relationship with the environment. More than that, it could change how individuals see their own relationship to nature and the world. National Park Cities in the United States are not such a wild idea, as the growing number of cities in Europe that are embracing the concept show us. This academic exercise also pointed to ideas of how to start moving

With the current environmental policies and stong level of community involvement, the City of San Luis Obispo is in the right direction to become one of them. The vision is strong enough to inspire us to take action towards a more sustainable future, if not by pushing for the National Park City model then by continuing to educate ourselves on sustainability and act in ways that can help shape a better future.

• • •

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Planning for San Martin, Santa Clara County, California in an Era of COVID-19

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This article discusses the authors' experience with two studios that contributed to Santa Clara County's planning efforts for San Martin, an unincorporated community in the Santa Clara Valley. The graduate studio, taught by Dr. Dandekar, was charged with a strategic development plan for over 11 square miles around the village of San Martin. The undergraduate studios, taught by Dr. Dandekar and Dr. del Rio, developed urban design visions for the village. Due to the university response to the COVID-19 pandemic, the studios were held online.

In the Spring Quarter of 2020 two studios in CRP were engaged by Santa Clara County's Department of Planning and Development to develop ideas for San Martin, a rural community 30 miles south of San Jose and 7 miles north of Gilroy. There were two components to the mission:

1) An overall ***strategic development plan*** with a focus on rural culture, agricultural preservation, and small-scale agritourism. This plan was to be addressed by a graduate specific plan studio (CRP 553), and

2) A set of ***urban design visions*** for the redevelopment of San Martin's central area to protect the historical rural sense of place, support agriculture and diversify the economy. A key element of this was to support the anticipated growth of tourism given an existing commuter Caltrain station and in anticipation of new California's high-speed rail service. Developing the urban design visions was charged to the third-year undergraduate urban design studio (CRP 341).

Our clients, Santa Clara County Planning Manager Rob Eastwood, Principal Planner Bharat Singh, and Senior Planner Michael Meehan challenged the students to "think out of the box" and consider creative ideas but to always remain responsive to the local rural character and agriculture-oriented culture. Both studios were to generate ideas that could stimulate discussions with the San Martin community about possible future scenarios and long-range planning directions. Two substantial reports were developed: *San Martin Strategic Development Plan* and *Urban Design Visions for San Martin*. A Department of Conservation Local and Regional Planning Grant *San Martin Farm Futures* helped support the work and the compilation of the reports. The reports have contributed alternatives on which economic development scenarios are being based by consultants to Santa Clara County, under the auspices of the *Farm Futures Grant*.

Reflections of the COVID-19 Pandemic

Two weeks before the start of the Spring quarter, with little warning, the COVID-19 pandemic caused a stay at home state order which eliminated all "non-essential travel" in California. Conventional face-to-face, studio teaching, and field work had to be transitioned to online mode overnight and resulting in all classes and coursework being conducted via Zoom. To make matters even more difficult, the normal ten-week quarter was reduced to nine weeks to enable faculty to master new technologies, rethink pedagogy, and innovate the design of courses for online delivery. The circumstances called for resilience and commitment from all collaborators - the Santa Clara Planning staff, the studio instructors, and the students. To prevail, plan, and adapt to the unique circumstances brought about by the Covid-19 pandemic demanded more time and interaction by planning staff, more preparation by faculty, and maturity and concentration from students. The needed energy and commitment by all parties made the planning effort possible.

San Martin Background

San Martin is a rural community located south of San Jose and 7 miles north of Gilroy, in the southern, rural part of Santa Clara County, California. Surrounded by the beautiful rolling hills of the Santa Cruz Mountains to the west and the Diablo Range to the east, San Martin's fertile soil, pastoral charm, and stunning viewsheds are a window into the past agricultural glories

of The Valley of Heart's Delight, as the Santa Clara Valley used to be called (Figure 1)

Served by two ramps from the nearby Highway 101, San Martin is a census-designated place with a plan area of approximately 11.6 square miles (7,400 acres), 2,122 housing units, and 7,027 residents of which 46% are Hispanic or Latino. The community is a large producer of garlic, mushrooms, and wine, and is home to the South County regional airport. However, once home to some of the most productive farmers and distributors of fruit and nuts in the world, San Martin and the larger Santa Clara Valley farmland is now at risk.

As one of the last stands of undeveloped natural beauty in the greater Silicon Valley, San Martin is currently facing urban encroachment on all sides as the technology boom to the north has caused housing costs to rise exponentially. Technology employees are moving away from skyrocketing home prices creating a ripple effect of escalating land and housing costs and accelerating the conversion of prime farmland for housing development. It is anticipated that the arrival of California's high-speed train and easier connections to the Bay Area will accelerate this trend. In the past 30 years alone, Santa Clara County has lost 21,171 acres of its farmland and rangeland to development, with an additional 28,391 acres at risk. The loss of this remaining farmland would have disastrous consequences for the region; depleting local food resources and diminishing desperately needed climate resiliency in the region.

It is this looming potential that drove the County of Santa Clara to develop a countywide, comprehensive plan for agricultural preservation (Santa Clara Valley 2018). The plan won numerous awards including the California State American Planning Association award of excellence for Innovation in Green Community Planning. The county followed up with the Local and Regional Planning Project grant project *San Martin Farm Futures* as an effort towards agricultural conservation and envisioning possible farm futures that are responsive to the community's diverse needs and aspirations (California Department of Conservation 2019). The work of the graduate studio was to concentrate on exploring possible regional development scenarios and a draft strategic plan, contributing to the *San Martin Farm Futures* project.

Complementary, the County's Planning Department wanted the development of possible futures for San Martin's community core, a small village established around the intersection of Monterey Highway and San Martin Avenue which connects directly to Highway 101 (Figure 2). Running North-South and parallel to Monterey Avenue, the Union Pacific rail tracks are shared with Caltrain which has a station just north of the intersection. As California's high-speed train will not reach peak speeds until it is past San Miguel, the county's preferred alternative is for it to share the existing Union Pacific rights-of-way and to include a stop in San Miguel. Given that development is already encroaching from the North (Morgan Hill and San Jose) and South (Gilroy), this future scenario will add substantial pressure to San Martin's agricultural land and, particularly, to the character of its community core. The work of the undergraduate studio was to explore possible urban design scenarios for San Martin's core area that could accommodate future residential development and agricultural-tourism in a manner responsive to the community's character and aspirations.

Strategic Development Plan.

This plan was addressed by the graduate-specific plan studio (CRP 553) which had 12 first-year students with a variety of backgrounds. With a focus on rural culture, agricultural preservation, and small-scale agritourism the strategic develop-

Figure 1: San Martin's rural character. (source: https://www.zillow.com/homedetails/14020-Center-Ave-San-Martin-CA-95046/19862811_zpid/?)

Figure 2: San Martin's central node: the intersection of San Martin Avenue and Monterey Highway (as seen driving south on Monterey). (source: Google Earth)

ment plan seeks to bring about an integrated and cohesive physical, cultural, and socio-economic transformation in the San Martin Area. It features concepts and suggestions to support existing farming operations; expand niche agriculture, organic farming, and ecology-based tourism; promote agricultural preservation; enhance rural character by design; enhance connectivity; and, support local hospitality activities.

The studio work plan was completed in three phases:

Phase one: involved reviewing relevant plans and documents, executing site-specific studies (remotely given the Covid-19 pandemic and shelter at home State mandate), analyzing existing land uses, assessing the quality of the landscape and the built form. Interviews with various community and area- experts were completed remotely.

Phase two involved the creation of ***concept*** plans around three thematic areas, building on findings from phase one, as follows:

Rural Character. Outlining the structure for the development of design guidelines to direct the shape and qualities of buildings, built form, and public infrastructure. Delineating a conceptual model of a multi-modal hierarchical system of roads to protect and allow enjoyment of the rural charm and aesthetic quality of the San Martin landscape.

Agricultural Preservation. Conceptualization of a structure for developing scenic corridors and an approach to encourage a mix of small and large farm-based agriculture and related economic activity along them to attract tourists. Exploring the potential for an agriculture incubator to assist in supporting entry farmers in a range of farm types, particularly small farms.

Agrotourism. Identifying and exploring strategies to increase capacity for agritourism and empowering farmers to engage in tourism responsive activities.

These concept plans were presented to the planning staff to ascertain their receptivity to the ideas explored

Figure 3: Before (top) and after (below): Example of design guidelines applied to Cheri Road.

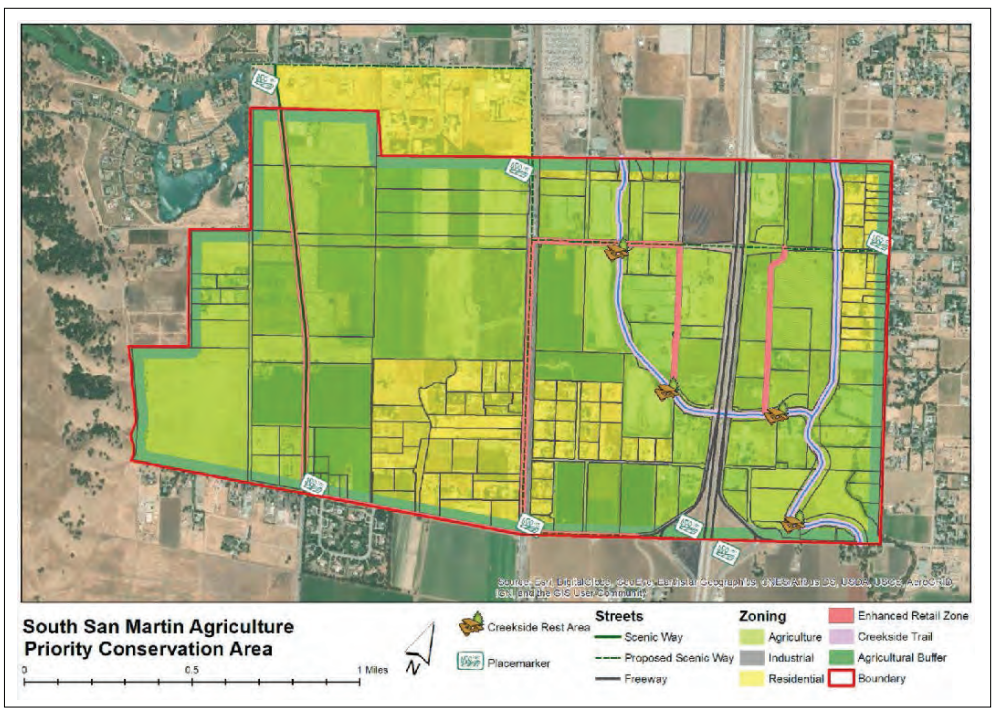
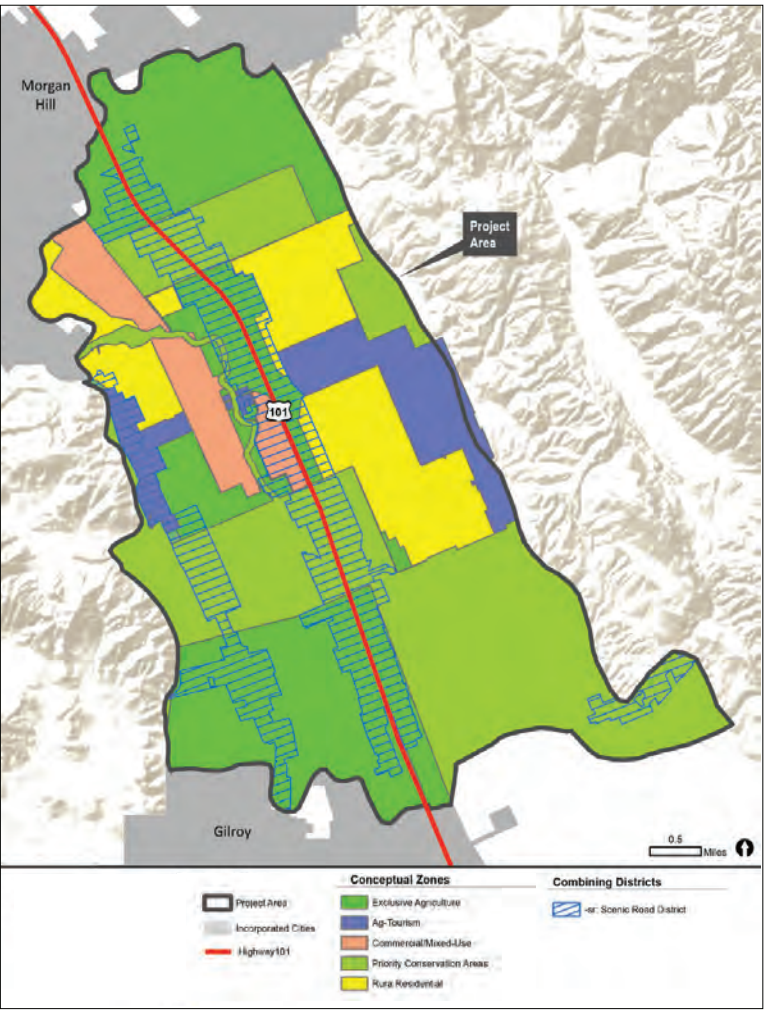


Figure 4: Priority Conservation Area Map.

Figure 5: Vision for rural development reflective of agritourism.

Figure 6: Concept map showing the three proposed Transect Zones.



and presented. Comments received from staff were factored into plan development in phase three.

Phase three involved the development of detailed strategies for bringing about the changes outlined in phase two. Strategies were refined to fit existing conditions in San Martin. Those selected and prioritized were described in detail in various chapters of the report as follows:

> ***Rural Character***, involved updated design guidelines to delineate materials, architectural styles, and signage to enhance a rural sense of place. A street-hierarchy system was designed to improve connectivity, enhance safety, encourage multimodal use, and reinforce the rural aesthetic (Figure 3)
>
> ***Agricultural Preservation***, included strategies to promote a vibrant agricultural economy and prevent the conversion of high-quality agricultural land to non-agriculture uses. These included delineating specific areas of San Martin to prioritize for conservation, for small and large scale farming, and for agrotourism related activities to complement farming (Figure 4).
>
> ***Agritourism*** included strategies to support agritourism activity by developing a Farmers Toolkit and a Marketing Plan to promote San Martin as an agritourism hub (Figure 5).

With an eye to implementation, the report's last chapter proposes a series of development strategies including a Transect Zone approach as a land-use guiding strategy to facilitate preserving agriculture activities and the rural character while increasing agritourism in San Martin (Figure 6).

Urban Design Visions

Developing urban design visions for San Martin's core was the mission of the third-year undergraduate studio (CRP 341) involving 38 students. It was centered on the intersection of the two major thoroughfares, Monterey Road and San Martin Avenue, and the approaches to it. The project area includes the commuter Caltrain station (the last stop before Gilroy), located just north of the intersection, and a mix of commercial uses, warehouses, small offices and industries, a few residential uses, and vacant or underutilized land. Most non-residential buildings require significant upgrading and architectural coherence. Connectivity issues, uneven sidewalks, and weak streetscaping make walkability and biking very difficult. The plans for a high-speed train service with a stop in San Martin will impact the community substantially by enabling fast and easy commutes to Silicon Valley and the Bay Area, potentially increasing tourism, helping expand the local economy, and revitalizing the village core.

Encompassing both public and private lands, the studio's alternative design visions for San Martin's village core involved development scenarios that included land uses, building envelopes, public facilities, circulation, open spaces, streetscaping, and gateways. The designs were to benefit the community and its residents, protect the historical rural sense of place, support agriculture, diversify the economy through tourism, and accommodate new housing types to address existing and anticipated development pressures. Particular attention was focused on guiding development around the Caltrain station as well as in the station itself as a multipurpose element. The ideas for the village core were to be in synchrony with San Martin's rural character, provide for a strong identity and place-making opportunities, but respond to positive forces of growth and change.

The project area was divided into four sub-areas and an overall streetscape and guidelines design plan for the major intersecting roads through the core. Two discrete urban design visions were developed for each of these sub-areas. The students presented their preliminary ideas and diagrams to the county planners and, after incorporating their comments, developed their final proposals. Across all ten solutions, some themes and foci emerged that may guide discussion towards a community-driven design vision for San Martin's core. A general concept diagram is presented as Figure 7. The foci are:

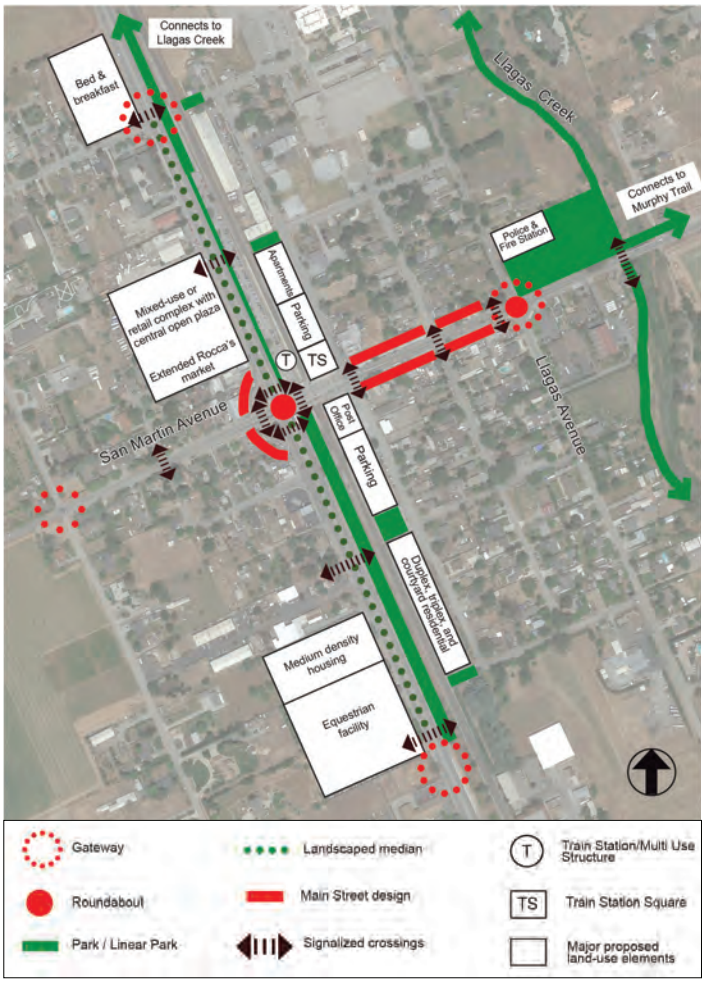


Figure 7: Concept development diagram for the village core.

Figure 8: Concept for the main intersection showing the new train station and market structure on the right. (team Marchi, Milan, Nelms & Pham)

The high-speed train line and station

The new train station's architecture would be responsive to local history and culture and become a noteworthy landmark. The station would serve as a public-oriented facility complemented with open spaces that would include retail, eateries, and space for a farmers' market. In the existing vacant area between the train station and the village's main intersection, a station square would celebrate local history and permit access to a pedestrian bridge connecting both sides of the railway to the platforms.

Land-uses and buildings

Enhancing the walkability of the village core and its sense of place by creating a coherent built environment, higher density and more intense commercial uses, and the continuity of development patterns. Among many ideas, the students propose extending mixed-use zoning and various development options in existing vacant and underutilized lots throughout the village core including an equestrian center. For the intersection of Monterey Highway and San Martin Avenue, the teams propose a coherent collection of buildings with retail and restaurants to generate a memorable central place serving the community, agritourism, and rail commuters.

Figure 9: Concept for the main intersection with the proposed round-about with a horse sculpture, the train station and the linear park on the right. (team Kwan, McKay, Tram & Wong)

Figure 10: Market structure adjacent to the train station. (team Marchi, Milan, Nelms & Pham)

Figure 11: Illustrative site plan for South Monterey Highway corridor, showing the roundabout, the civic center (2), linear park, and the equestrian center (4). (team Kwan, McKay, Tram & Wong)

Community open spaces

Although the village of San Martin's density is low, formal parks and recreational land within walking distance are in high demand. Suggestions in the student projects include two linear parks looping around the village (one between the railway and Monterey Highway, another along Llagas Creek), a system of small pocket parks along sidewalks including the conversion of some of the existing street parking, incentives for businesses to set up outside seating and for large development to create semi-public plazas as extensions of sidewalks, and the use of vacant lots as community gardens through the establishment of a local cooperative and direct access to the proposed farmers' market.

Walkability and vehicular circulation

Walkability is directly related to an attractive mix of land-uses and a closely-knit built environment fronting the streets, as stated above, but also to safe streets for pedestrians and bicyclists as well as comfortable and attractive sidewalks. In that respect, the most important focus of the student work was the intersection of Monterey Highway and San Martin Avenue where safety should be enhanced by design, as much as its role in placemaking. The two best alternative designs propose either a small roundabout at the intersection, or expand the sidewalks at the North-West and South-West corners to create two small plazas. Another team proposes a second roundabout at the village's east entry to slow traffic from Highway 101 and create the opportunity for a gateway. The placement of the two roundabouts would slow vehicular traffic between them and allow the future development of a main street attractive for visitors. The rest of the proposals include "road dieting", wider sidewalks, creation of bike lanes, bulb-outs at corners, more traffic lights and pedestrian crossings.

Figure 12: Vision towards creating a main-street feel along San Martin Avenue when arriving from Highway 101. Note the park along the Llagas Creek and one of the proposed roundabouts. (team Ip, Wexler & Wilson; 3D rendering by Pham)

Identity

It is important that the projects strengthen San Martin's rural character and identity, particularly along the main roads, and that they provide a strong sense of place to the village core. Such factors will boost community pride, help distinguish San Martin as a unique place in the Santa Clara Valley, and contribute to making the community a destination for agritourism. To this end, the students propose roundabouts as opportunities for identity-giving landmarks integrating landscaping, signage, and public art; simple and well-illustrated architecture and streetscape design that recognize five distinct zones in the village core; an integrated street and pedestrian signage coherent with San Martin's rural character; and educational signage and mapping for visitors and agritourists.

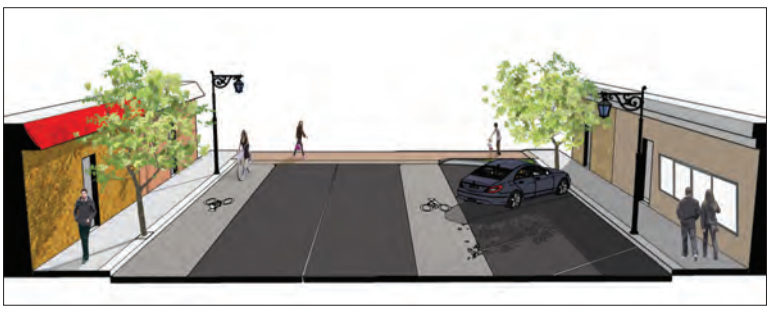


Figure 123: Design guidelines towards creating a main-street feel along San Martin Avenue when arriving from Highway 101. (team Anderson, Kandikuppa, Miramontes & Ratto)

Final Remarks

The student work represents a pre-planning phase to imagining creative and dynamic design options for the area. The visualization of alternative developments prepared by the students is hoped to capture the imagination of San Martin residents and business owners and stimulate public and private commitments and investments to form an active, walkable, and memorable center for the community.

Given the limitations imposed by the COVID-19 pandemic on the studio experience and pedagogies, particularly precluding the students from in-person field studies or any community engagement process, the work from both graduate and undergraduate was well above our expectations. The final reports and the proposals, both at the level of policies and specific design concepts, were of a level comparable to a "normal" studio class held face-to-face. The students demonstrated a strong commitment, capacity to adapt, sense of responsibility, and, above all, a strong desire to come up with their best work and contribute to the community and the county in their long-term planning efforts.

Figure 14: Concept for the West Gateway by Llagas Creek, marking the entrance to the village core when entering from Highway 101. (team Amaya, Combs, Mendonza & Romero)

Pedagogically speaking, the success of the graduate studio can be partially attributed to their varied academic and professional backgrounds which enabled them to deal with the big picture, sort through a large body of policies and programs that pertained to the study area, selectively delineate additional strategies that would add value and complement existing efforts to proposed a sound set of regional policies and actions. The success of the undergraduate studio certainly owes a great deal to the students having experienced three urban design studios before and been pretty familiar with work process and types of deliverables, and having worked in teams to produce needed results been familiar with individual members' particular expertise and skills.[1]

It is reasonable to conclude that the success of online studios seems to be directly related to the level of professional maturity and experience of the students that are involved. Students in both studios took seriously the task of organizing their work so that it communicated effectively not just in the final reports but also in the PowerPoint illustrated presentations that were made to the San Martin Planning Committee and the Santa Clara County Planning Commission. Their attention to honing these various modes of presenting their ideas strengthened the potential to disseminate the ideas widely.

Words from Rob Eastwood, Santa Clara County's Planning Manager, conveyed in an email to the studio instructors, succinctly summarize the impact that the student work promises to have in assisting the San Martin community and Santa Clara County:

> "I was very impressed by the professionalism and quality of the work that the Cal Poly students invested in San Martin's *Farm Futures Project*. San Martin is a unique rural community in southern Santa Clara County that has often been overlooked in the shadow of Silicon Valley. For many years, the community has been seeking to create a new planning vision that reflects their ideal of a unique rural community, separate from urban Silicon Valley.
>
> After some initial discussion in 2019 and subsequent fits and starts, the County Department of Planning and Development was able to secure State grant funding and a contract with Cal Poly to begin the work – targeted to occur during the Spring 2020 semester. On March 17, 2020, the County of Santa Clara Public Health Officer announced a Shelter in Place order addressing the Covid 19 Pandemic, limiting outdoor travel and congregation. This action effectively prohibited the Cal Poly students from conducting site visits and meeting with San Martin residents as outlined in the scope of work. Despite these challenges, the students used virtual tools, including Google maps, and conducted video-conference interviews with San Martin residents and stakeholders, simulating the normal site visits and community engagement process.
>
> The resulting reports and presentations were very impressive, especially given the limitations on community access forced by the Shelter in Place order. The students provided a comprehensive presentation at two County public hearings and gave thoughtful answers to questions from the commission and committee members. The commissioners remarked on the quality of the work and density of ideas presented, one stated that hearing the number of ideas presented was like "drinking through a fire hose". Overall, the work was timely and well delivered, and provides an outstanding kick-start for the County to begin a formal community planning process with the San Martin residents."

• • •

[1] See the next article by Kwan, McKay, Tran & Wong, one of the student teams, on their perspective about the studio.

Urban Visions for San Martin: An Online Urban Design Studio
Reflections from a Student Team.

Vinson Kwan, Henry McKay, Trisha Tran, and Wesley Wong
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The authors participated in the undergraduate urban design studio charged with developing urban design visions for the small unincorporated community of San Martin, in California's Santa Clara Valley. Just before the quarter started, forced by the COVID-19 pandemic, the universtity moved all classes to online mode. The authors reflect on their experience and make suggestions for future virtual studios.

At Cal Poly's City and Regional Planning (CRP) department, hands-on studio courses are an essential part of both the undergraduate and graduate programs. These courses provide students the chance to actively apply concepts learned from previous and on-going instruction while simultaneously engaging in Cal Poly's core philosophy of "Learn by Doing" by solving real-world planning problems. Undergraduate students complete three urban design-focused studio courses, followed by two community planning studios during senior year. Graduate students take one-quarter long urban design studio followed by two general planning studios before completing their thesis.

The urban design projects associated with the studios do not necessarily continue succinctly from quarter to quarter, but the fundamental, applicable competency and skill set of students increase with the progression of each studio experience. This essay reflects the experiences of four CRP students (the authors) who completed their third and arguably most consequential urban design studio in an entirely online environment due to the Covid-19 pandemic. Given the unprecedented nature of the Covid-19 pandemic and its serious impact on the urban design studio experience and planning in general, this essay serves as both an artifact of the unique time in which it was written, as well as a tool for future planning students who may have to adapt to an online studio environment.

It is important to acknowledge that this essay reflects the perspectives of four students who had a previous history of working together and had developed a friendship prior to the experiences discussed. The team's history, working relationship, and familiarity with one another undoubtedly contributed to the team's outcomes and shaped their perspective of studio-based learning in an online format. Previously, the team completed a less complex, but similar project together leading them to have a working knowledge of each other's communication styles, deliverable expectations, strengths, and weaknesses. Where one team member lacked, other team members excelled, and this dynamic was already fairly established. Given the team's history, everyone had built enough trust with one another to meet deadlines and deliver quality work products for the project discussed. The trust built through the team's history cultivated an environment of comfort that eased the transition to an online studio format.

The spring quarter 2020 studio discussed here was a fundamentally different experience than previous studio experiences due to the Covid-19 pandemic, which made a typically in-person experience an entirely virtual one.[1] It was delivered in a virtual format from beginning to end. The course was co-taught by Vicente Del Rio and Dr. Hemalata Dandekar, both well respected and seasoned urban planning scholars and professionals. Though commonplace in other courses, the virtual format and quick transition time was uncharted territory for urban design studio courses.

CRP 341, Urban Design Studio III is the most advanced urban design studio course in the CRP department and is the only urban design studio course that retains real-world clients, making the stakes much higher. During the spring quarter of 2020, the class prepared work for the Santa Clara County Planning Department. The class was assigned to develop urban design concepts for the village core of San Martin, a small rural community of approximately 7,000 residents. The project area included a commuter rail station and a mix of commercial

[1] See the article "Planning for San Martin, Santa Clara County in an Era of COVID-19" by H. Dandekar & V. del Rio in this FOCUS.

uses, warehouses, small offices and industries, and vacant or underutilized land with a few residential uses. Two teams - approximately 4 students each - were assigned to every one of the project areas in San Martin's village core. The Santa Clara County Planning Department held a virtual kick-off meeting for the class introducing the three planners guiding the project who highlighted the county's vision for the project and the agricultural and rural focus of the community. At the end of the quarter, each team's design proposal was showcased and reviewed by the Santa Clara County planners, who provided feedback on each team's deliverables.

After the quarter ended, the team was retained by their professors to compile the various design concepts developed for San Martin's village core into a report. When the report was completed, the team virtually presented the class's design ideas to the Santa Clara County Planning Commission and San Martin Planning Advisory Committee (SMPAC). The members of SMPAC are San Martin residents and were excited to see the class' new design ideas. Some of these ideas included new building uses that had not been previously introduced in San Martin such as horseback riding facilities, communal housing for farmworkers and tourists, and large outdoor public spaces.

National Climate

Throughout the studio process, on-going social movements and national protests, specifically in response to police brutality, occurred across the United States and the World. The seriousness of these events and the collective reckoning with systemic racism in the United States created a new, more urgent focus, making it more difficult to focus on design work. With news of these events spread across social media coupled with ever-changing Covid-19 information, team members felt overwhelmed by the volume of the serious and often very tragic news that was coming in every day. The team was in a privileged position to be able to step away from these events and focus on design, but it was impossible to not think about what was occurring. For one team member, the studio project provided an outlet for an escape from the cognitive overload of national events because they could work on the project and escape the reality occurring around them.

Challenges of a Virtual Format Studio

We recognized that our online studio suffered from a constrained dialogue between project teams and professors, potential gaps in project feasibility, and creativity due to the lack of community outreach and physical site visits, as well as other drawbacks created by virtual learning. However, new benefits emerged as a result of online learning including time saved by not commuting to class as well as the development of new professional skills necessary for professional planning practice. Lastly, the reflection offers a few strategies to help students overcome the challenges of participating in an online studio format.

Working on an intensive urban design studio remotely presented a unique set of challenges, as well as certain new opportunities. For a majority of each class session, students were siloed into individual Zoom rooms with their project teams. Though this type of arrangement was the most feasible way of conducting group work in an online setting, it changed the studio workflow in multiple ways, removing feedback loops that play a key role in an in-person studio environment as well as informal peer review and discussion that would have otherwise occurred.

Urban Design work is visual by nature and student's ideas are typically seen in the form of large sketches and diagrams, or digital renderings on a computer screen. In a classroom, these ideas are typically strewn across a table, visible for all to see. This allows for professors, peers, and teammates to provide real-time feedback on any aspect of the project, not just what is being shared on a screen. While online tools such as Zoom's annotate screen option and Conceptboard attempt to address this issue, they ultimately do not compensate for the larger deficiencies of an online environment.

In both an online and in-person setting, each team typically has at least one or two check-ins with their professors during a given class session, ensuring adequate progress is being made and providing an opportunity for critique and discussion. While these check-ins still occurred virtually, other important avenues of feedback were cut off. In a physical studio space, sound travels, and it is easy to catch other teams' discussions. Furthermore, students tend to socialize with their friends in other teams, often discussing each other's projects and what professors did and did not like about them. Though informal, this type of feedback is valuable, and often affects the design process before 'official' check-ins are even conducted. In an online environment, the conditions to foster this type of informal discussion were not present, meaning that groups were less aware of what their peers were doing and how they approached problems on a day to day basis.

In general, the whole studio process became much more formalized, with less spontaneous interaction, discussion, and feedback. The results of this change were not inherently good or bad, but noticeably different. If the studio had taken place in-person, certain activities may have undergone more collective thought, such as the S.W.O.T. analysis, possibly leading to different design choices. Teams would have likely been more influenced by each other's work, leading to different outcomes.

Another factor that likely affected the outcome of the studio was the lack of in-person site-surveys and community outreach. Under normal circumstances, the class would travel to the project location to analyze the site and document its conditions. In certain cases, community outreach efforts would be conducted. In previous studio experiences, the team had visited local businesses and spoken with workers they encountered. The combination of these various experiences helped create a clearer understanding of what the project location was like; its scale, sounds, and smells, as well as countless other characteristics that are difficult to experience virtually.

Opportunities of a Virtual Format Studio

Despite the various shortcomings of an entirely virtual studio environment, certain aspects of the arrangement proved beneficial. Collaborating on design work over zoom felt much more analogous to professional planning practice, especially in the era of Covid-19. In the consulting world, work is billed by the hour, meaning that clear project management procedures are necessary to complete deliverables in a timely and efficient manner and to meet client

expectations. The team adopted some of these strategies to stay on task in a fairly unfamiliar environment and to ensure that expectations were met. In the consulting world, a team may only get one meeting before a deliverable is expected. Though the team had multiple check-ins with their professors for most deliverables, the experience more closely resembled the professional world.

In practice, these project management strategies were fairly simple but highly effective. In the digital realm, the team created a clear folder structure on google drive to ensure that everything was organized and accessible. Systematic file naming conventions and version control measures were also adhered to to ensure that work was not lost. Though these measures are fairly common-sense procedures, diligently maintaining a clean online workspace proved especially important in an online studio environment. How the team communicated and worked on tasks also became much more procedural in an online context.

At the beginning of each work session, check-ins were conducted to establish what everyone would be working on and what the expectations were for key deliverables. A similar process occurred at the end of each meeting, with a list of action items for team members. Though these processes occurred to some extent, mostly in a less formal manner, in prior in-person studios, the online environment forced the team to conduct work more procedurally to meet deadlines and deliver a quality work product. This type of environment is commonplace in the professional world and the experience of completing a studio online during the Covid-19 pandemic forced the team to change key habits and work more professionally.

Furthermore, virtual learning felt like somewhat of a break for some students. Not having to commute to class made way for other activities, such as sleep. Given the stress of the world, the comfort of working on studio work at home was beneficial and necessary for many. Overall, the experience was the team's first exposure to remote working and proved that, despite various shortcomings, remote work is a highly feasible alternative to conventional office work environments.

Suggestions for Student Success in Virtual Studios

For students that are adapting to a virtual studio format, a few strategies are offered from our team's experience. In a virtual learning environment, staying connected to your teammates can be challenging. The team must feel comfortable around one another to successfully collaborate, challenge one another, and ultimately deliver high-quality work products. In addition to conducting work-related check-ins, informal social check-ins go a long way in creating a healthy online work environment. In the team's case, simply setting aside a few minutes each work session to check in on each other's lives outside of work and school helped foster this environment.

Also, it is important to stay in contact with peers in other teams and discuss the project with them. This was one of the less formal elements of an in-person studio that was largely diminished in the virtual studio environment. Beyond simply reaching out to friends via text, scheduled breakout room sessions could be facilitated with various team combinations so that teams could take part in more robust dialogue with one another. This could potentially lead to different project outcomes and allow for less formal criticism and brainstorming to occur.

Overall, urban design studios delivered virtually can achieve high-quality, well thought out results if the right conditions are in place. Teams must be highly organized, be comfortable with one another, and put in the extra effort to succeed in a more challenging environment. While many would expect a course so physical in nature to not be as successful online as its in-person equivalents, that is not necessarily the case. While certainly different, the team's experience redesigning San Martin's village core remotely was largely a positive one and provided a taste of what may be the new normal in the planning profession.

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FOCUS 17

International

My Quarter in Italy

Payton Ratto
Student, BSCRP, Cal Poly.

The CRP Department encorages students to study abroad any time during their education. The fall quarter of junior year is particularly recommended for longer international educational opportunities. In this article, Peyton Ratto describes how much she gained from her study-abroad program in Florence, Italy, where she took general education classes, as well as from her trips to other countries.

In August 2019, I say goodbye to my parents at LAX and board my flight to start my journey to Florence, Italy, to participate in Cal Poly's CEA semester-long program. I land in Florence sweating like never before: the humidity was insane, and the sun was strong. My taxi dropped me off at what I expected was going to be my home for the next four months. Because most buildings were mixed-use, it looked like I was just dropped off in front of a shop. I was waiting outside looking lost when finally, a volunteer from the University of Florence spotted me and helped drag my seventy-five-pound bag up seventy-seven steps of stairs to my apartment which, of course, had to be at the top floor of the building! Imagine the sweat now.

It is difficult to summarize my study-abroad experience in only a few words. There were so many aspects of it that made it the most amazing time of my life, and I will cherish those moments forever. My course work in Florence did not involve classes specific to City and Regional Planning but I was able to complete my General Education requirements through the Liberal Arts and Italian Culture program. My classes included "Beginning Italian," "The Great Masters," "Secret, Signs, and Symbols of Italian Art," and "Communication and Global Competence," which was a great class that helped me adjust to being abroad. It was amazing to learn about the differences and similarities among cultures. One cultural difference I favored over American culture was the time orientation of Italians. Their time orientation is completely different from ours, for instance, during mealtimes. In Italy, meals were meant to be enjoyed with good company and to last a few hours: you don't eat just because you are hungry and leave right after!

Learning Italian was great. Although I only took "Beginning Italian", I felt I was able to communicate with people at the grocery stores or cafés where most spoke little English. "The Great Masters" class and the "Secret, Signs, and Symbols" class consisted of visiting different museums once or twice a week. Florence has a lot of museums and you breathe a lot of art! The program provided me with a student card that gave me free and unlimited access to the museums so I could learn not only with my class but on my own time while exploring Florence.

Peyton in Florence.

Italian food: Cacio e Pepe dish.

Duomo di Milano.

It was astounding to see and learn all about the artwork, sculptures, and architecture in Florence. My school was located in the elegant Piazza della Repubblica, one of the city's many piazzas and plazas and one of the most famous in Italy. It was the most amazing feeling to see in person places that I had learned so much about in CRP's "Cities: Form, Culture and Evolution" class that I took in my freshman year. Whenever I find myself back in Florence, I will easily be able to name, date, and state multiple facts about almost every place and artwork around the city because I filled my days with exploring and seeing all the beauty the city has to offer.

Traveling to other cities and countries during my time in the program also contributed to my understanding of not only cultural but also architectural differences. I cannot believe how many countries and cities I was able to go to. I am eternally grateful for the opportunity. Seeing cities in a textbook and reading about why and how cities have evolved and became so great is one thing, but there is nothing that compares with the spectacular feeling of being there, walking along the streets or just sitting in a piazza admiring the beauty around you, surrounded by the sound of various languages and by locals chilling out or walking to work.

My first trip outside of Italy was to Copenhagen. I remember getting off the plane, hopping onto the tram to my hostel, and just staring outside. I was amazed and was so excited to walk around: public spaces in Copenhagen are beautiful and are what textbooks, professors, and my peers talk about how spaces should be designed. Streets and plazas were filled with public seating and street art and were of ease to walk and cycle around.

On almost every trip, I made sure I would climb to a high viewpoint – a church or hill – for an overview of the city. From the top of the Duomo in Florence, I could see how dense the city center is and how it expands into the Tuscan hillside. I was able to get my city overviews when visiting Edinburgh, Paris, Copenhagen, and Vienna; all of these magical cities taught me so much! My search for high viewpoints got to its apex in Interlaken, Switzerland, where I paraglided and was able to have a totally different view of a city. Up from the clouds, I overlooked the Swiss Alps and could see how the glacier blue lake runs through the dense city center and the outskirts consisted of only a few scattered homes.

Traffic circles, walkability, narrow streets, and good public transportation can sum up a lot of what European transportation planning is about. In Florence as well as in all the cities I was able to travel to on the weekends, I would walk everywhere. I never walked so much in my life! I would walk at least seven miles each day on weekdays and double that on weekends. If my maps showed a gelato place within a thirty-minute walk I would not hesitate and walk there.

Paragliding in Interlaken, Switzerland.

It is crazy that, now that I am back if I mention something that far to my friends we immediately get into the car and drive there instead. This is one of the aspects that I am going to miss most about being abroad: being able to walk everywhere and admire the beauty of walking around or just sitting on a bench for a while and take a moment to breathe it all in. I was so appreciative throughout my entire journey. Times were not always easy and there were moments I missed my family very much but, whenever I felt down all I had to do was just look out of the window of my apartment or step outside and realize what a beautiful and amazing life experience!

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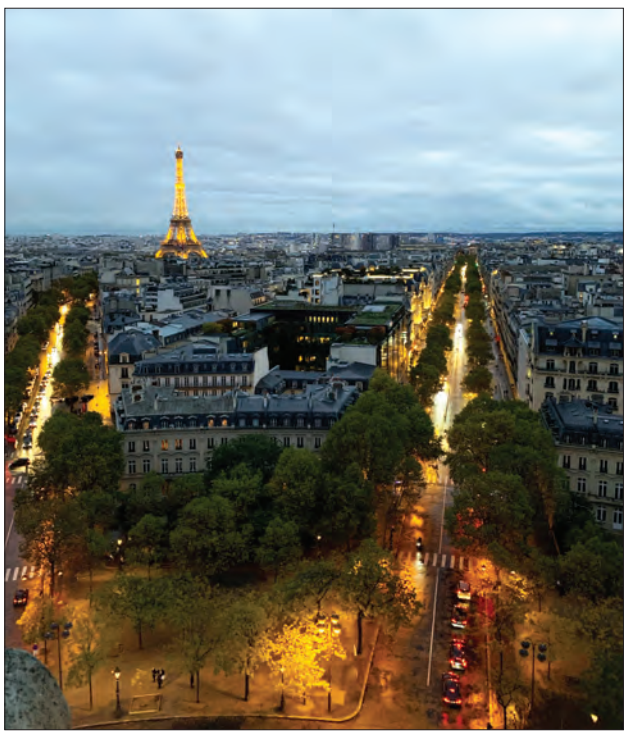
Saint Stephen's Cathedral, Vienna.

The Duomo decorated for Christmas, Florence.

View of the Champs Elysees and the Eiffel Tower from the top of the Arc de Triomphe, Paris.



FOCUS 17

Spotlight

Conversations with Alumni

Nicholle Narhi Wright

A.I.C.P.; Bachelor of Science in City and Regional Planning, Cal Poly, 2004.

I recently had a heated conversation with my mother about, 'why isn't there enough affordable housing for everyone?! Can't you just change the rules?' At first, it made me laugh because sixteen years post-CalPoly, my mother still doesn't get what I do for a living. But more significantly, we had a chance to dive deep into the complicated set of inter-related societal, fiscal, market, regulatory, historical, and political issues that have led us to a near nation-wide housing crisis. If only I had the chance to have a meaningful conversation like that with each resident that attend a public meeting. We explored the issues of gentrification, short-term rentals, foreign investment, community outreach, zoning regulations, NIMBYs, the definition of affordable housing, and more.

It was an exhausting conversation because given the direct question of 'why?', the answer is so opaque, filled with intricacies and competing interests that are difficult to map verbally. The conversation was cut short, though, when I was brought to tears when she said, 'those people just make up regulations without any care for real people.' Those people. Those regulators. Those planners like me. A planner like you is training to be. This is the responsibility we shoulder as planners and that my mother was trying to articulate: to understand the challenges of an increasingly complicated society and, with elegance and as little unintended consequence as possible, plan for the greatest good for the most people.

In this culturally charged moment, when systemic racism is a nation-wide conversation and an issue which planning created or extended the foundation for, and a global pandemic is increasing the divide between classes and political parties, this challenge is more important than ever for planners. (Side note - read into that statement as AI can't replace your job.) In every city I have worked in, with each underserved community and each neighborhood trying to protect their character, I feel the weight of this responsibility more acutely. And, literally, is my job to face these hard questions head-on to find solutions uniquely calibrated for each specific place. This responsibility weighs heavily on my soul. The silver lining: the mental fortitude required to rise to the occasion keeps me waking up every day to try to make a positive contribution diligently. I hope that is why you are studying planning because the industry needs planners who care deeply enough to accept these big challenges. As you venture into your career with the multitude of available paths to planners, be ready. Ready to come across the big questions, the inherent conflicts, the societal challenges that have long-term consequences.

During my seventh-grade shop class I discovered drafting and decided to become an architect. The geometric thinking and understanding of how each of the parts relate to and strengthens each other was the first real thing in education that made sense. At 14, I researched what being an architect meant: buildings, spaces, efficiency, design for a specific user or group of users. This view of architecture felt very constraining to me (let's be fair, research by a 14-year-old was hardly illuminating of the whole practice of architecture) and, even at that young age, I knew that I wanted to make a difference for more that a single user or a small group of people, and to deal with more than a single building at a time (no one had introduced me to urban design at the time…). Finding City and Regional Planning at CalPoly SLO provided me a path that would allow me to care deeply for people and the places they live in.

In my senior year, as I worked as an intern at the City of Morro Bay, a Cal Poly career fair exposed me to several work opportunities, and I was recruited by KTGY, an architecture firm in Orange County, to do land planning for new housing developments. In 2006, I moved to William Hezmalhalch Architects where I worked as an Associate Planner until 2009. Land planning is the ultimate puzzle to efficiently and elegantly design a property to be a place where people love to live in, while making the maximum return on the investment. This balance of quality principles with fiscal responsibility is a critical point that, in my experience, planners still have a way to go in order to guarantee good work that still pencils financially. Working directly with architects to calibrate

Partial view of Inspirada, a new community in Henderson, NV. (source: www.inspirada.com)

housing products that serve the market and the property was an exciting way to use my planning degree with creativity. However, it also introduced my first encounter with an existential planning crisis: reconciling my education-based principles with the idea that I was contributing to sprawl by designing suburban greenfield development. I had to do some deep and early soul searching to manage my conflicting realization that, while we need more housing and more of them in affordable places, this type of housing is the major contributor to sprawl and the degradation of place.

Land planning quickly led me to write specific plans that would set a regulatory foundation for the development we were creating. This required me to dive deep into existing zoning codes to truly understand how to leverage or amend every applicable regulation in designing a specific plan. Specific plans then led to architectural design guidelines and to reviewing applications for consistency. Working for architecture firms allowed me to experience the full project development cycle: from a blank property canvas to built neighborhoods.

To date, the most exciting day in my career has been walking around Inspirada, an 85-acre and 4,000 residents community that I helped plan in Henderson, a town just south of Las Vegas, Nevada. Seeing people living in a place that I was able to influence at every step was humbling and thrilling. Don't forget that planning is not just a job: it is a career for shaping the places that people live in, work, and construct their memories; we impact their livelihoods, their access to a healthy life and food, and their potential for advancement. Several facets of planning deeply impact all those fundamental underpinnings of a place's daily life and make a huge difference in people's lives. So, go big! Invest deeply in academia, understanding the interrelated and competing interests, and the empathy it requires to create or intervene in communities.

My career was temporarily derailed during the great recession. After a year of being out of work, I found a position doing real estate research for CoStar, a national company. This detour introduced me to the commercial component of communities and illuminated the way non-residential properties or valued, sold, and intrinsically impacted by the rhythms of the communities they are located in. It wasn't my passion though, so at my first chance, I clawed my way back into a part-time planning position based on the professional network I had built. It required that I work my regular shift at CoStar from 6 am to 2 pm (I researched mid-west portfolios) and then drive an hour to the Irvine office of AECOM to work from 3 pm to 8 pm 'moonlighting' as an associate planner. That was a long nine

Website for Viva Dona Ana. Public engagement strategy to publicize, attract stakeholder participation in, and provide an interactive platform for the Dona Ana County Comprehensive Regional Plan, New Mexico.

months of working two jobs to ensure that I didn't fall out of the planning industry for good. The recession took a hard toll on planners in my class and, unfortunately, not everyone found their way back into planning.

In 2015, I was able to convert my part-time position at AECOM into a full-time senior planner position. AECOM is a global engineering firm with a business line dedicated to Urbanism + Planning, providing community and strategic planning for municipalities throughout the country and abroad. As a senior planner with AECOM I have the privilege of managing projects for cities and counties in southern California. My current position focuses on innovative policy and design solutions for municipalities' regulatory and long-range planning challenges. It involves research, best practices, code analysis, and intensive place-based outreach to craft or retool thoughtful regulations with economically-viable solutions. Additionally, since 2019 I have been a lecturer at UCSD's Urban Studies Department.

Planning is a multi-disciplinary, challenging career that, in my experience, does not have a fixed set of responsibilities. The more you learn, the more places you work in, the more intricate the issues become, and, as a result, you push yourself to keep learning and keep innovating. My advices to students and recent graduates are:

1) Always say yes. Yes has been the primary strategy that allows me to take on new challenges and to build a broad range of skills. I always say yes to a challenge even if I have no idea what to do at first.

2) Bring your empathy. Our communities and our nation need to be taken good care of more than just regulated. Through proper understanding and listening, we can calibrate solutions for the place. This notion often requires us to put aside our politics, biases, and sensitivities to be servants of the public.

3) Be resilient. We cannot undo the harms of the past through a single plan or an outreach event. And we will not always make the right or the best decisions. We can learn from the past, understand our shortcomings, and apply our best efforts in a broad-based planning approach that can bring toward incremental positive changes and improve the lives of all in our communities.

4. Travel. Experiencing different places and cultures is the very best way to make you more sensitive to placemaking. I still have to make it to many of the world's iconic cities, but every place that I have visited influences and inspires new approaches to my planning. Authentic experience of natural and urbanized spaces can only add to your understanding of this complex, beautiful world that we live in.

If you are a planning student, I am thrilled that you are open to taking on our cities' many challenges by studying at Cal Poly and being resilient enough to continue through these difficult times and an unprecedented pandemic. Keep calm, stay health, and plan on.

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Kearny Mesa Community Plan: Worked with the City to overhaul the land use and urban design strategy for the central and employment heavy community of Kearny Mesa in the City of San Diego.

Conversations with Alumni

Jaime Jaramillo

Masters in City and Regional Planning, Cal Poly, 2015.

As a freshman at the University of New Mexico, I took classes in architecture and sustainability. I learned about sustainability best practices and about how businesses, governments, and communities can use those practices to improve their triple bottom line. Specifically, we took a deep dive into how the Brazilian city of Curitiba used urban planning, sustainable measures, and the triple bottom line framework to revolutionize their transportation systems, agricultural and open spaces, and social conditions. As an urban dweller myself, I was captivated by the concepts of urban planning and the direct relationships between the natural and built environments with social urban life. This was the birth of my curiosity in the planning profession.

My undergraduate studies and experiences in planning ranged from early Chicano settlements in New Mexico to the forms of urban blocks and development patterns in global cities. I was active in the state chapter of the American Planning Association where I met planners from all sectors and was encouraged to step out of my comfort zone. In the last year of my undergraduate degree, a professor of mine committed to writing a letter of recommendation for me, but only if I applied to graduate degree programs and only if I applied out of state. I was unsure of making that commitment, but with graduation ahead of me and the Great Recession behind me, I was not entering the job market at a particularly good time. With a few helpful nudges in the right direction, I decided to leave my comfort zone and apply to graduate planning programs.

After considering several universities, I decided to visit two: Cal Poly, San Luis Obispo, and the University of Illinois, Chicago. I toured both campuses and their planning departments, and stayed as a tourist in both cities for a few days. I met with the faculty, staff, and students. It was the Cal Poly "learn by doing" mantra and warm people that convinced me that I belonged in San Luis Obispo.

My time at Cal Poly was well spent. I juggled interactive studios, long hours in the computer lab, challenged wicked policy problems, faced the economic challenges of the Great Recession, and interned with a local planning firm that took me all over the state. I was learning by doing all while making lifelong friends and constantly being nudged outside my comfort zone. I think it was my time interning in San Luis Obispo with likeminded, professional planners that convinced me that I was in the right field.

After graduating from Cal Poly, I worked in the private sector for two different planning firms. Following graduation, I worked full time for Lisa Wise Consultancy in San Luis Obispo, where I focused on long-range planning, financial impact analysis, and urban design. There I worked on the Ashland Cherryland Specific Plan and San Luis Ranch Specific Plan, for instance. Later, I decided to move back to New Mexico to live closer to family and practice planning in my home state. There I had the opportunity to work for Consensus Planning, a firm based in Albuquerque where I focused on long-range comprehensive planning as well as entitlements and current planning issues for development and redevelopment projects throughout New Mexico. Among the projects I worked with are the Elevate Mixed Use Redevelopment, the Westland Master Plan and Sector Plan, and the Alamogordo Comprehensive Plan and Downtown Metropolitan Redevelopment Plan. I gained experience working directly with the public sector planning, code enforcement, building safety, and metropolitan redevelopment city and county staff. I built a network of colleagues and professionals that I trust and still work with today.

In the private sector planning arena I took on the role of project manager for several projects where I facilitated multidisciplinary teams in the pursuit of planning and development solutions. In working with engineers, architects, developers, other designers, business owners, public sector planners, city officials, decision making bodies, and economic development leaders I was exposed to discussions about due diligence research, financing, tax credits, opportunity zone funding, engineering and zoning constraints, infrastructure design, etc. It was from these projects and discussions that I learned I had an interest in the

process of fitting all of the pieces together to improve the direct relationship between the natural and built environments with social urban life. I wanted to learn and do more.

Now I work as a real-estate development planning manager for Homewise, a nonprofit in Santa Fe, New Mexico. I manage multidisciplinary teams in single family and mixed-use affordable housing projects throughout the state. I work with engineers, planners, policymakers, real estate professionals, and builders to increase the number of affordable housing units, improve the financial wellbeing of New Mexicans, and make the communities where we work stronger.

In my current job, no two days are the same. One day I could be performing due diligence research for the acquisition of a property for an infill redevelopment project, reviewing engineering drawings for a new subdivision or mixed-use project, assessing engineering site grading options, presenting at a neighborhood or community coalition meeting, preparing a response to a city's Request for Proposals, or designing the future transportation and trail system for a mixed-use neighborhood. My job responsibilities are everchanging. The skills, tools, and interest I gained during my time at Cal Poly and in my professional planning career have prepared me to be the agile and curious planner that I am today. I don't anticipate that I will ever stop learning and asking hard questions.

Reflecting on my path in the planning field to write this article made me realize that I learned an important lesson I would like to pass on to all aspiring planners and future Cal Poly professionals who read this article: Discover what motivates you to understand and find solutions to wicked problems. Never ignore that motivation even if that means leaving your comfort zone, learning a new skill or program, or reinventing yourself by starting from the bottom of the professional ladder a second, third or even tenth time.

The team involved the Elevate Mixed Use Redevelopment in front to the project with Jaime (with a hard hat).

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Jaime (front row in a black dress) her class mates after the presentation of their general plan update for Wasco, CA in 2015. Professor Cornelius Nuworsoo is on the left, and the city planning director and a senior planner on the right.

Learning from California:
Highlights from CRP Studios 2019/2020 AY

Planning and design studios are fundamental for the CRP department mission and both the undergraduate and graduate curriculae. As the best vehicle for Cal Poly's learn-by-doing pedagogy, the studio experience allows students to engage in quasi-real projects and work with real cities and their officials, stakeholders and communities, helping them to become better prepared for professional life.

CRP 202: Mixed-Use project in San Luis Obispo, by Ariella Stanford & Alan Cazares.

CRP 203: Mixed-Use and Residential Complex in San Luis Obispo, by Abraham Miranda & Alyssa Adams.

Undergraduate (Sophomore year):
CRP 202 Urban Design Studio I (Winter 2020).
Instructors: Amir Hajrasouliha and Beate Von Bishopink.

Mixed-Use Devevelopment in San Luis Obispo, CA.

The objective of this studio was to design a mixed-project on a site at the corner of Foothill Boulevard and Chorro Street. They were introduced to the city's approval process for a new student housing project across the street by the developer and the construction manager, studied the city zoning and land-use regulations, conducted a site analysis, collected information from stakeholders, and conducted case studies of similar mixed-use projects in California and elsewhere. Organized in small teams, the students came up their own use full development programs and design proposals that were required to respond to existing conditions and be well integrated to the urban fabric. Through the project, the class was introduced to the full scope of the urban design process; explored methods, elements and principles of good design, and continued to develop their graphic skills in AutoCAD, SketchUp, and Adobe Suite.

Undergraduate (Sophomore year):
CRP 203 Urban Design Studio II (Spring 2020).
Instructors: Vicente del Rio and Beate Von Bishopink.

Redevelopment of Two Blocks in San Luis Obispo, CA.

Due to the COVID-19 epidemic, this studio was totally conducted online. Student teams were asked for redevelopment projects of a 3.7-acre area defined by Higuera, Pacific, Archer, and Pismo streets in San Luis Obispo, in compliance with the Downtown Concept Plan, the Mid Higuera Enhancement Plan, and parking requirements. After a thorough study of existing documents, the class conducted a site and context analysis (Google Earth, Streetview, and city maps), analyzed similar redevelopments based on the 8 principles from SLO's Downtown Concept Plan, and delivered their projects through a Powerpoint, a poster, and a professional-level report. Projects responded to the city's vision, local needs and economic opportunities, through sustainable, walkable, and culturally appropriate solutions.

Undergraduate (Junior Year):
CRP 341 Urban Design Studio III (Spring 2020).
Instructors Vicente del Rio and Hemalata Dandekar.
Client: County of Santa Clara Planning Department.

Urban Design Visions for San Martin, CA.

Responding to a request from the County of Santa Clara Planning Department, this studio developed long-range urban design visions for the core of San Martin, a small rural community of 7,000 residents. The pressure for new suburban-type housing due to the proximity to the cities of Morgan Hill and Gilroy is great and expected to increase with the arrival of high-speed train and better commuting services to the Bay Area, as well as with new economic opportunities including agricultural tourism and healthy food systems. The ten student teams developed eight urban design proposals for four distinct areas for the San Martin core and two proposals for circulation/wayfinding guidelines for the entire core. The County of Santa Clara will use the final posters, Powerpoints, fly-throughs, and unified report to help initiate a discussion with the community about possible futures. Due to the limitation imposed by the COVID-19 pandemic, this project was fully developed online. *(Read about this experience in the Faculty and Student Work Section)*

Undergraduate (Senior Year):
CRP 410/411 Community Planning Lab (Fall 2019 & Winter 2020).
Instructor Kelly Main.
Client: City of Santa Fe Springs.

Health Element Update, City of Santa Fe Strings General Plan.

This studio was retained by Santa Fe Springs, a city of approximately 18,000 in southeastern Los Angeles County, to create a Health Element for their General Plan. The work process started in the Fall Quarter with an intense investigation of local conditions and community needs, and lead to the development of the element itself in the Winter Quarter.

To ensure the participation of a wide diversity of community members, the class undertook an extensive engagement process which included information and participatory booths at community-wide events and venues, such as the Dia de los Muertos (Day of the Dead) celebration and the Santa Fe Springs Swap Meet. Children and young adults were particularly important for the outreach efforts.

A focus group was held with the City's Youth Advisory Committee, a survey was carried out at the Santa Fe High School, and participatory activities were held with first through sixth-graders at the local Boys and Girls Club where the *Place It!* participatory method (created by James Rojas) was used. Through this method, participants used colorful recycled and random objects to draw and built their ideal park while the Cal Poly students interviewed them. Understanding the what, the why, and the

CRP 341: project for South Monterey Highway, San Martin by Vinson Kwan, Henry McKay, Trisha Tran, and Wesley Wong.

CRP 410/411: Health Element of Santa Fe Springs General Plan.
Above: CRP students in front of the City's High School.
Below: Boys and Girls Club students building their ideal park.

ideal allowed the class to develop realistic suggestions for the City's existing parks.

This lab's engagement process helped the class produce a Health Element tailored to Santa Fe Springs' needs. Equally important, our students were exposed to a variety of participatory activities, carried out with a great diversity of community members, preparing them to better design and execute outreach efforts in the diverse communities they will serve.

Graduate (First Year):
CRP 553 Project Planning Lab (Spring 2020).
Instructor: Hemalata Dandekar.
Client: County of Santa Clara Planning Department.

Strategic Development Plan for San Martin, CA.

This plan covers 11.6 square miles around the village of San Martin in unincorporated Santa Clara County. Contributing to the county's long-range planning efforts for the Santa Clara Valley region and the San Martin community, the plan proposes an integrated and cohesive physical, cultural, and socio-economic transformation suportive of local community needs and existing small-scale farming operations; expands niche agriculture, organic farming, and ecology-based tourism; and enhances rural character by design.

The plan includes strategies for: a) Enhancing rural character and a sense of place by updating existing design guidelines and developing a street-hierarchy system to improve connectivity enhance, safety, encourage multimodal use, and reinforce the rural aesthetic; b) Preserving agriculture by promoting a vibrant agricultural economy and preventing the conversion of high-quality agricultural land to non-agriculture uses; c) Initiating agritourism activity with a Farmers Toolkit and A Marketing Plan which promotes San Martin as an agritourism hub; and d) Development Zones and Transect Plans are delineated as land use guiding strategies to facilitate preserving the rural character and agriculture in San Martin and increasing agritourism. *(Read about this experience in the Faculty and Student Work Section)*

Graduate (Second Year):
CRP 552/554 Planning Lab (Fall 2019 & Winter 2020).
Instructor Cornelius Nuwursoo.
Client: City of McFarland.

City of McFarland General Plan Update.

This studio engaged sixteen graduate students in preparing a comprehensive revision and updating of the City of McFarland's General Plan, originally prepared in 1991. Through a process involving residents and stakeholders, the class formulated a development scenario to accommodate aspirations for growth in population, housing, and jobs by 2040.

Located in Kern County, California's Central Valley, approximately

CRP 553: Strategic Development Plan for San Martin, California. Design scenario for rural character along San Martin Avenue.

CRP 552/554: Existing and future scenarios; revitalization concept for downtown, new General Plan for the City of McFarland.

25 miles north of Bakersfield, the city covers approximately three square-miles of land consisting of mostly residential, institutional, and agricultural uses. Its Sphere of Influence and the surrounding area are primarily agricultural. California's Highway 99 runs right through the city as the major north-south route. McFarland's population of 13,930 residents (2017) is predominantly Hispanic or Latino (96 percent) with a median household income well below the County and State's median incomes thus qualifying it as a disadvantaged community and triggering the State requirement to add an Environmental Justice Element to the General Plan update.

Comprehensive research on community characteristics, a thorough analysis of opportunities and constraints for development as well as public feedback guided the studio work. The new General Plan includes detailed long-term goals, objectives, polices, and programs to inform future development on fourteen Elements: Land Use; Circulation; Conservation; Housing; Environmental Justice; Economic Development; Public Facilities; Safety; Health; Open Space; Noise; Community Design; Air Quality; and Sustainable Agriculture. The new General Plan can lead McFarland to improve residents' quality of life, provide diverse housing options, generate economic vitality, and enhance its attractability as a strategic stop for travelers along Highway 99.

From the three distinct growth scenarios presented by the class to the City, the preferred alternative includes a variety of changes to land use in designated growth areas to accommodate infill development for housing and commercial growth; redeveloping downtown for mixed-use (see Figure); and targeting highway commercial and industrial uses along Highway 99 within an expansion area of its sphere of influence toward the south of City limits.

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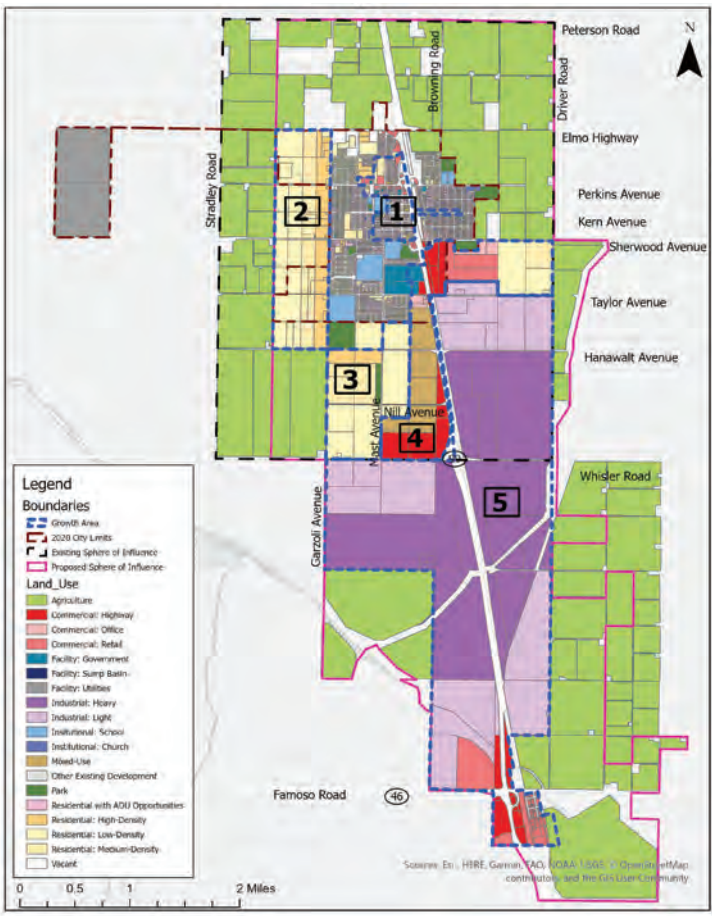

CRP 552/554: Key growth areas and land uses; General Plan for the City of McFarland.

Theses and Professional Projects: 2019/2020 AY

Master of City and Regional Planning
City and Regional Planning Department, Cal Poly San Luis Obispo

For fulfilment of the MCRP degree at Cal Poly's CRP department, the student may choose between developing a thesis or a professional project, or a specific individual project in a final planning studio (CRP 556). The following abstracts are from master's theses and projects defended in the 2019/2020 AY. They are available upon request, and most are available from Cal Poly's Kennedy Library at http://digitalcommons.calpoly.edu/theses

Cal Poly Pier Master Plan

Troy Lawson

This is a professional project includes a Master Plan for Cal Poly's Center for Coastal and Marine Sciences (CCMS), a 3,000-feet long pier located in Avila Beach. Built in 1984 by Unocal, the pier was donated to the university in 2001 and converted into a research station with a classroom/dry lab and a conference room. The document includes significant background research and sources and inspiration for the project goals, and a justification of plan preparation for the university and the California Coastal Commission.

Connecting Unserved Regions to the California High-Speed Rail: A Case Study of the Central Coast of California

Jayeong Kim

Thesis presented for the dual degree Master of City and Regional Planning and Master of Science in Engineering with a Specialization in Transportation Planning.

Explores the feasibility of connecting the California Central Coast and High-Speed Rail stations via express feeder bus. An efficient transit connection to the High-Speed Rail is imperative, especially for the Central Coast, due to its relatively distant location from the existing cities. A methodology is developed to assess potential time travel savings with bus-to-HSR connections compared to the automobile, and it includes five steps: (a) review of population and employment densities; (b) exploration of potential routes; (c) identification of desired destinations; (d) comparison of travel times between the auto and High-Speed Rail with feeder bus; and (e) forecast of the potential ridership pool. Results show significant travel time savings (sometimes over 2.4 hours) while for relatively short trips time savings are less significant because routes to the closest High-Speed Rail stations become indirect and extend travel time. The forecast of the potential ridership pool indicates that there is a substantial number of long-distance trips (more than 55,000 a month) from the Central Coast that could use the feeder bus connection to the High-Speed Rail to reach desired destinations instead of the private automobiles, planes, and other existing public transportation services.

Urban Forest Plan

Dan Canella

The Urban Forest Plan outlines the health/social, environmental, and economic benefits that urban trees can provide, and makes recommendations for the City of McFarland with respect to urban forest management. Appropriate tree species are recommended, as are guidelines for locating, planting, and maintaining new trees. Costs and benefits are examined and an implementation strategy is discussed to develop and maintain a healthy urban forest.

Strategic Messaging: A Blueprint for Signage, Wayfinding, and Telecommunications in McFarland.

Erik Anderson

This project develops citywide standards for signage and wireless telecommunications facilities within McFarland and includes a wayfinding program for public signage. It provides a set of development principles that revolve around aesthetics, public safety, and creating a sense of place that enhances community character and the overall City of McFarland brand.

City of McFarland Economic Strategic Plan

Nicole Brown

The McFarland Economic Strategic Plan provides direction for the City of McFarland to engage in economic development. The plan includes an existing condition report with an analysis on opportunities for future growth, a demographic and economic analysis, and goals defined as 'pillars' to support the future growth and development of the City.

Downtown McFarland Design Guidelines

Samantha Ihle

Abstract: The Downtown McFarland Design Guidelines provides direction towards the development of an active, accessible downtown core. The report includes an analysis of existing conditions, aesthetic recommendations for future development, as well as goals and implementation measures to improve the Downtown McFarland's vitality.

McFarland Industrial Design Guidelines

Alistair Fortson

Abstract: These Industrial Design Guidelines provide information useful for new projects and redevelopment efforts alike to ensure compliance with the McFarland Municipal Code and the General Plan. To do so, the Guidelines incorporate best practices from similar markets and includes illustrations of successful industrial sites and features. These Guidelines offer multiple flexible options to solve classic industrial problems from neighborhood compatibility to screening and security.

Parking Ordinance Update Proposal

Rebecca True

Abstract: The McFarland Parking Ordinance Update Proposal presents updated parking standards, a framework for electric vehicle infrastructure deployment, and recommendations based on emerging trends in parking policy.

McFarland Zoning Code Diagnostic Report

Brian McGinnis

Abstract: Having begun the process of adopting an updated General Plan the City of McFarland will soon be due to update its Zoning Code in accordance with the goals and objectives laid out in its updated General Plan. This report provides a compiled list of recommendations to the City of McFarland of how its Zoning Code could be improved to better implement the City's General Plan.

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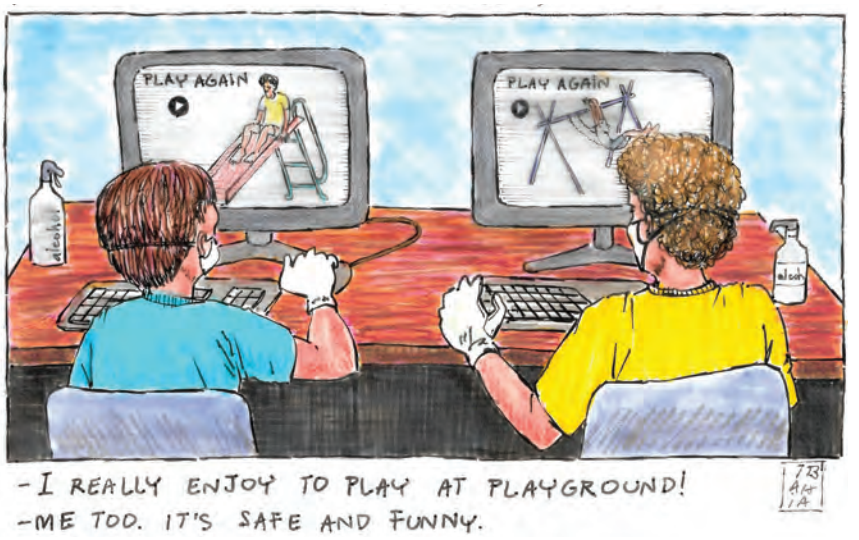


The Post-COVID 19 playground

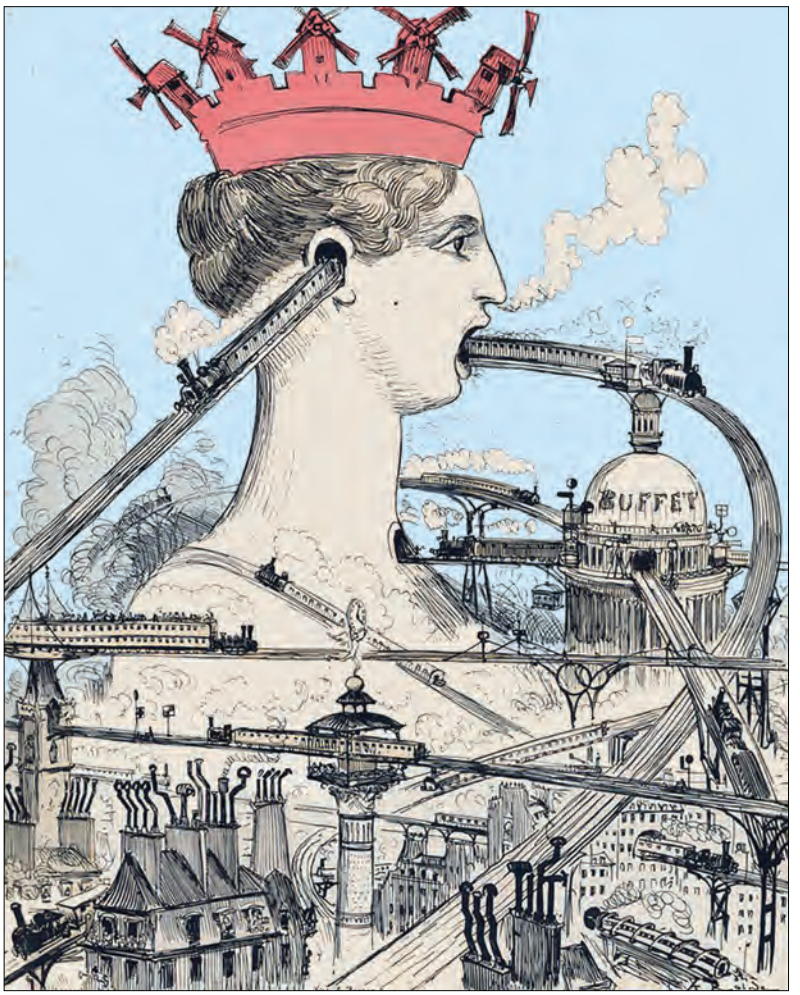
by **Tarcisio Bahia de Andrade**

Architect, PhD.; professor, Department of Architecture and Urbanism, Federal University of Espirito Santo, Vitoria, Brazil. Besides teaching and consulting, Tarcisio publishes a regularnewspaper column on urban issues and founded the Urban Sketchers Vitoria section. He is a constant collaborator with FOCUS.

Updated street furniture

by **Vicente del Rio**

Architect and urbanist, PhD.; professor emeritus, City and Regional Planning Department, Cal Poly San Luis Obispo. Founder and managing editor, FOCUS. A lover of the art of drawing and sketching, one of his hobbies, sometimes Vicente risks having a sense of humor.



Historical Cartoon

The Beautification of Paris by the Subway
L' Embellissement de Paris par le Métropolitain

by **Albert Robida**

Satirical cartoon, published in the magazine *La Caricature # 338* in1886, reflecting the negative view that many Parisians had on the idea of a subway/train system. The woman represents Paris. This is FOCUS's colorized version of the original in the Carnavalet Museum, Paris.

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