STUDIO FOCUS

The urban built environment is responsible for over 70% of all greenhouse gas (GHG) emissions worldwide. How we design buildings and cities today will determine if the effects of climate change will be manageable or catastrophic.

- Architecture 2030 Curriculum Project Brief

Along with our client and stakeholders, this studio will study possibilities for creative design and planning solutions that serve as vehicles for social, environmental, and physical betterment at the regional and community levels in El Salvador. In particular, we will be guided by a deep connection amongst health, education and environmental protection, involving a multi-disciplinary approach to community design and development. We will approach the Bajo Lempa as a unique, water-based landscape, one that frequently overwhelms existing infrastructure and is a trans-bordered, and continually shifting landscape. The Lempa River is a living entity and those who fish, shrimp, and farm in this system are a part of this ecology. This studio is meant to generate questions and responses, including: How do we create the conditions to transform attitudes, create buy-in, and long-lasting attachment to sustainable place making? What new words, concepts, language can we evolve in relationship to place (for example around scale, process, thresholds, ecotones, buildings)? And, what are the best means to deliver empowering design and policy projects.

To accomplish the work of this studio, we will bring together a focus on low-carbon design and policy proposals along with ongoing work and research in El Salvador’s Bajo Lempa region. Low-carbon design is a quantifiable approach to good design; it is a crucial and creative way to define resilient communities. It is also an approach that government entities in El Salvador concerned with territorial development are specifically interested in. In 2015, El Salvador’s
Minister of Foreign Affairs, Hugo Roger Martínez Bonilla, became the 82nd signatory to the Paris Agreement on climate change (known as COP21) that especially focuses on the reduction of carbon worldwide.

Regarding new approaches to sustainable and resilient approaches to community development and empowerment, in this studio we will create a unique palette of design and policy interventions that are integrated across multiple scales and geared to the Salvadoran context as well as to international community design and development efforts generally. This framework will allow us to highlight and develop new concepts and vocabulary. For more specifics, please see the Architecture 2030 Palette information in the Methodology section below.

COUNTRY & REGIONAL CONTEXT

El Salvador is the smallest and densest country in Central America, with a population of around six million and area of 21,000 square kilometers (8,108 square miles). Because of its location on the tropical Pacific coastline it has a history of volcanic- and hurricane-related disasters that have marked and hindered its economic development. The studio will draw upon previous work done by policy and international studies students from the Monterey Institute of International Studies (MIIS) in California who have been working in the region for nine years studying alternatives for the improvement of the living conditions in communities in the south-central part of the country. This area—the Bajo Lempa—is rich in both agricultural and marine based natural resources. It comprises the mouth of El Salvador’s main river, the Lempa, and as a low-lying area, it is vulnerable to flooding and hurricanes during the rainy season (June-October) and also to drought, which directly affects the residents who rely on producing agricultural and aquaculture products for their income and for feeding their families. In addition to these difficulties, the Salvadoran government placed a moratorium on the extraction of endangered sea turtle eggs in 2009, cutting off another source of income on which people near the Bay of Jiquilisco, site of a RAMSAR1 wetland and UNESCO biosphere reserve, relied. The bay is home to one of the most important remaining mangle (mangrove) habitats in the Americas, an ecosystem that is in constant risk of destruction due to development pressures, invasive fishing methods, and contamination due to agriculture. To mitigate these problems, much of the work being conducted by local institutions and NGOs such as EcoVivia, La Coordinadora, and Asociación Mangle, who are key stakeholders for the studio, along with residents, focus on finding income generating options as well as alternative possibilities of community organization which foster democratic and sustainable models of pooling resources and collaborating for the advancement of their constituents. Communities in the region would like assistance in developing resource-management strategies that allow them to feed and support their families; opportunities to develop eco-tourism models focused on low-carbon design, especially those that could successfully counter larger-scale developers invading the area; as well as design and policies that support community public space networks, local market development, and fishing cooperatives.

1 RAMSAR refers to the International Treaty for the Conservation and Sustainable Utilization of Wetlands; it is a classification that includes the largest and most sensitive wetland areas of the world.
Communities and flood zones in the area of the Lempa River and the Bay of Jiquilisco. (Source: http://luterano.blogspot.com/2011/10/flooding-of-lower-lempa-region.html)

SITES
In the studio we will work with two communities, Ciudad Romero and Puerto Parada. Situated between the Lempa River and the Bay of Jiquilisco, Ciudad Romero was established on March 24, 1991, by Salvadoran refugees on the 11th anniversary of the assassination of Archbishop Oscar Romero, for whom the community is named. In the early 1980s, they left their village of Nueva Esparta in the easternmost department of La Union to escape fighting between the Farabundo Martí National Liberation Front and government forces. They first went to Honduras, but the United Nations, along with the Salvadoran and Panamanian governments, relocated them to a remote area of jungle in Panama. After ten difficult and isolated years, which forged their deepened spirit of community, the refugees finally negotiated their return and settled in the Bajo Lempa.

Approximately 200 families live in Ciudad Romero. Local organizations include a parents’ association, a youth group, a women’s committee, a Catholic pastoral team, and an ALGES chapter for the war-wounded. The community is served by one school that offers grades K-8, a child development center, a restaurant run by the women’s committee, a chapel and pastoral

2 El Salvador’s civil war was waged from 1980 to 1992.
center, a youth center, a community center housing offices, meeting rooms, and a youth-run radio station that is administered and maintained by La Coordinadora. With the help of the Salvadoran Red Cross, residents in 2008 erected a newer Casa Comunal (community center) that also serves as an emergency shelter. Ciudad Romero also boasts the first comprehensive kidney disease treatment clinic in the Bajo Lempa area, which brings a lot of visitors to the community.

Ciudad Romero is working to develop public space strategies that help unite the community around inclusive models of economic development, including creating public gathering spaces that support a new cooperative farmer’s market (mercado local), refurbished recreational space especially for the youth, as well as the local church and women’s center. By creating and supporting new socioeconomic strategies such as these, the community hopes to expand local enterprise and build entrepreneurial capacity; strengthen resource conservation through viable community ecotourism networks; connect severely disenfranchised rural producers, unable to compete in urban markets, with urban consumers; and foster the growth of vibrant communities where people can remain in place and prosper.

The four community fishing cooperatives of Puerto Parada, on the eastern estuaries of the Bay of Jiquilisco, under the leadership of their more recently formed local Coordinadora de Puerto Parada and its NGO, Sinkahuíte, are dedicated to developing sustainable economic livelihoods through pesca limpia, particularly in order to counteract the destructive human and environmental consequences of blast fishing, the highly unsustainable practice of dynamiting or blasting fishing waters to raise large numbers of fish to the surface for easy collection. In the area now known as Puerto Parada, salt production was a principal activity at the beginning of the twentieth century, a cooking process requiring the use of firewood, which was conveniently and excessively extracted from the surrounding mangroves. Later, the large family landholdings were planted with corn, cotton and rice, and served also for extensive cattle raising. Animal waste and the run-off from the heavy application of agrochemicals, particularly in the cotton plantations, began to contaminate the bay, causing the death of numerous wildlife species. Aggravating this situation in the 1960s and 70s was the increasing use of trammel or gillnets for fishing in the bay’s bio-rich channels and
estuaries, leading to severe over-exploitation and habitat degradation.

Pesca limpia fishermens’ boats on the Bay of Jiquilisco, at Isla de Méndez.
Source: Adele Negro.

The intensification of the civil war in the 1980s signified further destruction of the area, but also brought in new populations of families fleeing the bombings and raids in nearby towns. These refugees began to inhabit and restore, through more ecologically sound cultivation practices, the hacienda plantations abandoned by their landowners. It is in this context that the small fishing communities and cooperatives of Puerto Parada, comprising approximately 200 families, emerged and took shape as they sought to provide a viable, sustainable living for their members and reverse decades-long damage to the fragile ecosystem that serves as their source of sustenance. Since 2009, these cooperatives and their leadership have converted well over 200 fishermen, who formerly employed blast fishing, to pesca limpia practices. This illegal and mostly unregulated practice was historically used by many hundreds of fishermen along El Salvador’s Pacific coastline, but sites are now being increasingly identified and monitored, thanks to the efforts of various international organizations. Currently the cooperatives are dedicated to strengthening pesca limpia both scientifically and economically, in order to see it replicated in other fishing communities of the Bay of Jiquilisco. This endeavor is supported by the scientists of the Instituto de Ciencias del Mar y Limnología (ICMARES, the marine research institute of the University of El Salvador), as well as the Ministry of the Environment and Natural Resources (MARN) and the collaborative project work carried out by TES 2015 to help formulate policy, strengthen the regulatory framework and establish viable market outlets. Public space design and infrastructure development—such as spaces for storing and selling fish, holding community meetings, planting kitchen gardens, organizing children’s outdoor activities, attracting tourists to the bay with small-scale, environmentally conscious eco-tourism—are seen as essential and urgently needed components of integrated socio-economic viability and cultural preservation for this community.

**STUDIO OBJECTIVES AND OUTCOMES**
The overarching objectives of the studio are two-fold. First, during the group analysis and strategic
design approach to the studio, to imagine visionary design and policy futures that enable communities within the Bajo Lempa as a whole to transform and sustain themselves. Second, during the individual (or small-group) design or policy-development phase, to solve select design and planning issues in the two communities that we are partnered with. We will, with great sensitivity and substantial preparation, envision design and planning visions and solutions that address the following studio objectives and enable student learning around (we can also potentially accommodate new directions that arise out of research and interest):

1. Improve environmental management of the watershed and its mangrove habitat through proposals that address climate change, seasonal flooding and vulnerabilities to natural disasters.
2. Propose strategies for locally controlled ecological tourism, including areas of conservation, carbon neutral design strategies for mobility infrastructure, open spaces, and buildings.
3. Propose closed-system, sustainable strategies for waste management that help to end the practice of burning waste material in streets and yards.
4. Enable the strengthening and development of sustainable food production.
5. Examine historical ecologies as well as ancestral values to propose solutions to culturally appropriate, economically viable models of managing resources and designing space (built and landscape).
6. Develop shared community-space plans that help knit together the communities.
6. Actively engage with the communities through a participatory planning process by engaging in conversation with the studio client (ECOPA) and community stakeholders (local government and NGOs) and residents.

The studio will explore how design and policy alternatives can tackle these infrastructure, architecture, landscape and planning related issues, and how existing conditions might be adapted to function better in several senses—spatially, ecologically, socially, and economically. There will be an in-depth analysis of the sites complemented by the data produced by previous MIIS efforts; this will allow for our responses to be informed by an understanding of survival strategies already in evidence in the region’s population. We will build upon previous work done in the region and generate viable projects that may eventually be built and/or implemented through governmental and institutional funding; the likelihood of projects being implemented is high given the work developed over the last nine years by MIIS in collaboration with regional government and NGOs and coupled with the urgency of the issues and interest from those in many levels of government.

Brief/possible projects for Ciudad Romero:

Develop public space strategies that help unite the community around inclusive models of economic development, including:

- Create community gathering spaces that support a new cooperative farmer’s market (mercado local)
- Locate and design farmer’s market; being sensitive to the desired visitor-shed
- Develop community public space design plan for implementation that
  - Includes refurbished recreational space, especially for the youth
  - Takes particular account of the church and women’s center
  - Takes particular account of the N-S/E-W axes at southern edge of community
- Develop opportunities to expand local enterprise and build entrepreneurial capacity
- Strengthen resource conversation efforts and opportunities
• Develop ecotourism opportunities/constraints > develop
• Foster a sense of community that will allow people to stay in place and prosper

Brief/possible projects for Puerto Parada:
• Public space design and infrastructure development (to support storing and selling fish, holding community meetings, etc.)
• Plant kitchen gardens?
• Design areas for children’s outdoor activities
• Develop ecotourism opportunities/constraints > attract tourists to the bay with small-scale, environmentally conscious eco-tourism
• Strengthen integrated socio-economic viability and cultural preservation for this community.

STUDENT LEARNING OBJECTIVES
After taking this studio, students will display the provided competencies, or continued growth in them, or mastery of and modeling for others, in each of the following areas:

Professional practice
• Understand the quality standards expected in practice
• Understand the expectations for professional behavior and practice
• Create an ethical foundation for future practice
• Recognize accountability/responsibility to client
• Recognize accountability/responsibility to underserved groups

Team Skills
• Work more effectively in teams
• Understand basic group dynamics
• Understand how to provide and receive constructive feedback
• Manage projects more effectively

Planning and design knowledge
• Apply general planning and design concepts to a specific context
• Recognize the diversity of the public interest
• Create space for voice in planning outreach efforts
• Structure a formal assessment of a planning document
• Assess studio outcomes on a set of values (e.g. justice, sustainability)
• Apply planning and design research in a real world context
• Learn how to synthesize skills, knowledge, and values within a planning and/or design process and integrate these elements into planning processes and documents.

METHODOLOGY
Participants are expected to develop familiarity with the studio themes and their project areas through readings, research, data analysis, and the interactions with the client, stakeholders, and studio guests. This studio is set up to function as an Architecture 2030 Curriculum Project model. We will use the framework of the “2030 Palette”, an interactive and integrated system of low-carbon design and planning solutions, in three ways. The first is as an investigative tool within the studio to enable multi-disciplinary conversation and questioning around common ideas. Second, we will build a palette specifically for the studio that serves as a framework to create and develop
our own multi-scalar and linked design and policy proposals in written and graphic form. We will then use our unique palette (developed out of a series of “swatches”) as a communication vehicle and teaching tool to share with our studio client and stakeholders and to serve as a model for low-carbon international community development and design approaches. In support of this, we do have some assistance from AutoDesk.

While much of the focus of carbon reduction is on cities, rural and suburban areas in El Salvador are also key, especially for the following reasons:

1. A focus on the Global South is important - Latin America has the fastest growing urban population in the world and is expected to be 90% urban by 2050 according to the United Nations.
2. In El Salvador, as in other countries, rural populations are directly tied to urban centers through the forced migration that takes place when communities lack work and education opportunities. Appropriate design and policy interventions can help people, especially young adults, remain in place in their communities, which lessens the burden of cities to provide food, shelter, and employment that can have high carbon tolls, especially when dealing with precarious livability in the Global South.
3. Development done right, i.e. carbon neutral, is one less thing to worry about in terms of reducing carbon and working towards resilient communities.

The work methodology for the studio is composed of two stages:

**Research Stage**
- physical/environmental reality assessment.
- social reality assessment.
- analysis of existing national and international mechanisms of action in regions suffering extreme social and environmental problems.
- analysis of the work of other disciplines on these problems.

**Project Stage**
- Integral Group Proposal:
The research material collected in the first stage is used to produce an integral group proposal for the area of study. The proposal is mainly based on the studio intro session, discussions between students, as well as criticism from instructors and guests that will allow for interdisciplinary verifications. The general proposal will define the areas of intervention allowing for the coordination and relation between the individual projects.

- Specific Individual Proposals:
The final stage consists of the development of individual proposals, that will affect specific areas chosen by each student, and will be contained within the parameters predetermined in the general proposal. This stage tends to resolve problems pertaining to a determined sector of the area of study, allowing for the reinforcement or reformulation of some of the pre-established general concepts. These projects will yield policy and/or design recommendations that can be taken forward and implemented.

**ASSIGNMENTS AND GRADES**
**Deadlines:** Late submissions cannot be accepted for assignments that have a pin-up review.
Standard exceptions for major emergency situations apply; such situations should be discussed with the instructor.

**In Groups:**

**Research and Analysis at Regional/Habitation Scale, 20%**

1) Draft regional context and analysis swatches (10%)
2) Revised regional context and analysis swatches (10%)

**Design Strategies and Vision at Regional/Habitation Scale, 25%**

3) Draft design strategy swatches (10%)
4) Revised design strategy swatches (10%) & **Mid Review** presentation (5%)

**Individual Work (or in small group, with instructor permission):**

**Design Development Scale, 30%**

5) Draft design development swatches (at site/building/community level) (10%)
6) Revised design development swatches (at site/building/community level) (10%) & **Final Presentation** (10%)

**Final Project Submittal:**

7) **Final Swatch Submittal, 25%**

**BACKGROUND MATERIALS/READINGS (to get you started)**

**Papers/Reports**


**Online Articles/Plans/Websites**


http://cdkn.org/2016/05/paris-climate-agreement-cop21-el-salvador/?loclang=en_gb

**Architecture 2030 Resources**

http://architecture2030.org/programs/2030-palette/

All students must watch the following tutorials:

http://2030palette.org/tutorials
<table>
<thead>
<tr>
<th>Week</th>
<th>Activity</th>
<th>Goals-Results</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 9.28</td>
<td>Intro, Adele Negro, ED, ECOPA in studio</td>
<td>Familiarity with area, sites + stakeholder context</td>
<td>Site + Sources Orientation</td>
</tr>
<tr>
<td>2 10.3-10.5</td>
<td>Site Inventories + Base Maps; Stakeholder, Policy + Issue Diagrams</td>
<td>Creation of base maps for key concerns</td>
<td>Layout, flooding, envi resources, etc. Key sites, policies + plans</td>
</tr>
<tr>
<td>3 10.10-10.12</td>
<td>Inventory and Analysis; group presentations to instructor</td>
<td>Site analysis draft swatches presented and redlined</td>
<td>Regional, settlement, natural resource patterns</td>
</tr>
<tr>
<td>4 10.17-10.19</td>
<td>Finalize analysis; begin to develop Large-scale Design and Policy Responses</td>
<td>Larger-scale design strategies developed</td>
<td>Regional/settlement scale design strategies</td>
</tr>
<tr>
<td>5 10.24-10.26</td>
<td>Large-scale Design and Policy Responses</td>
<td>Larger-scale design strategies developed</td>
<td>Regional/settlement scale design strategies</td>
</tr>
<tr>
<td>6 10.31-11.2</td>
<td>Midterm Review, including studio consultants &amp; guests</td>
<td>Refined analysis swatches presented (100%), proposed larger-scale design swatches (85%) presented and redlined during review</td>
<td>Social, demographic, and environmental needs; strategic linkages between scales</td>
</tr>
<tr>
<td>7 11.7-11.9</td>
<td>Large-scale Design and Policy Responses + Preliminary Programming and Design/Policy Development</td>
<td>Complete refined large-scale swatches, Begin development of sub-regional design elements, including site, building, community areas</td>
<td>Social, demographic, and environmental needs; strategic linkages between scales</td>
</tr>
<tr>
<td>8 11.14-11.16</td>
<td>Design Criteria + Schematic Iterations</td>
<td>Begin development of sub-regional design elements, including site, building, community areas</td>
<td>Social, demographic, and environmental needs; strategic linkages between scales, Community design and development</td>
</tr>
<tr>
<td>9 11.21-11.23</td>
<td>Design Development</td>
<td>Continue development</td>
<td>Community design and development</td>
</tr>
<tr>
<td>10 11.28-11.30</td>
<td>Design Development</td>
<td>Pin up review of revised design swatches below the regional scale</td>
<td>Community design and development</td>
</tr>
<tr>
<td>11 12.5-12.7</td>
<td>Presentation + Swatch Refinements</td>
<td>In studio work, final pin ups to aid in completing work</td>
<td>Community design and development</td>
</tr>
<tr>
<td>12 12.5-12.7</td>
<td>Final Review, including studio consultants &amp; guests, final swatches due</td>
<td>Presentation and submission of final swatches (team and individual)</td>
<td>Community design and development</td>
</tr>
</tbody>
</table>
URBDP 508A STUDIO  
Autumn 2016  
Community Design, Planning, and Development in the Bajo Lempa, El Salvador  
University of Washington, Dept. of Urban Design & Planning  

Instructor: Rachel Berney  
TA: Chungho Kim  

MID- AND FINAL-REVIEW DESCRIPTION AND REQUIREMENTS  
Monday, November 7, 2016  
Monday, December 12, 2016  
Gould Court, 1:00 pm – 6:00 pm  

Mid Review Project  
FOCUS  Design Strategies and Vision at Regional/Habitation Scale, 25%  
COMPONENTS  Draft design strategy swatches (10%)  
Revised design strategy swatches (10%)  
Mid Review presentation (5%)  

Requirements  
• Each team will use two or more movable panels to convey their analysis and findings  
  (roughly the equivalent of (4) 36x60.  
• Existing conditions analysis can be curated to interface with strategies/vision presentation.  
• Both the existing conditions analysis and the design strategies/vision need to be organized  
  around a minimum of 3 place-based swatches/actions and 3 process-based  
  swatches/actions.  
• Everyone must grapple with the assets and opportunities raised during studio  
  brainstorming, however, your team can determine which of each you will respond to.  

Final Project and Review  
FOCUS  Design Development, 30%  
COMPONENTS  Draft DD concept and swatches (at site/building/comm. scale) (10%)  
Revised DD project and swatches (at site/building/comm. scale) (10%)  
Final presentation (10%)  

Requirements  
• (2) 36x48 panels/students  
• Context diagrams – key ideas and concepts  
• Two precedents  
• Plan/detailed plan  
• Sections/elevations  
• Renderings  
• Limited use of maps and photos – push for fully synthesized work  
• Each graphic should have a reason for being. Together they should form a story; what’s  
  the main point/idea for each one?  
• Practice your presentation
Overarching Studio Principles “Swatches”

Build Community Capacity
Cultivate Resilience
Know Your Community
Right Sizing
Support Community Health
Whole Systems
Community Design & Development Principles

Process

- Analyze the Edges
- Embrace Transitions
- Harness Local Skill

Shared Investment
Step by Step
Vectors, Sources & Sinks
Community Design & Development Principles

Place
Community Circulation
Community Science
Historic Ecology

Link Land & Water
Localize Benefits
Make Great Space

Support Households
Supportive Green Networks
Uniquely Usulután
Strengthening Pesca Limpia Fisheries: **Ecological Resilience**

**Resilience OF what?**

- People
  - Livelihoods
  - Small Villages
  - Quality of Life
  - Health
- Ecology
  - Human Habitat
  - Fish Stocks
  - Mangrove Estuaries
  - Healthy Biodiversity
- Natural Hazards
  - Seasonal Floods
  - Drought
- Economic Hardships
  - Developmental Pressures

**Resilience TO what?**

- Natural Hazards
  - Seasonal Floods
  - Drought
- Economic Hardships
  - Developmental Pressures

**ANTHROPOGENIC STRESSES UPON BAHÍA JIQUILISCO, EL SALVADOR**

- Unregulated pesticide usage
- Coastal population growth
- Loss of fisheries yields
- Ocean acidification

**Connections to waterways boost economy and social wellness and are assets in a shift toward sustainable methods of production, exchange, and social connection.**

**ANALYZE RESILIENCE**

**Resilience TO what?**

- People
  - Livelihoods
  - Small Villages
  - Quality of Life
  - Health
- Economy
  - Developmental Pressures
- Livelihoods
- Natural Hazards
  - Seasonal Floods
  - Drought
- Economic Hardships
  - Developmental Pressures

**ANALYZE RESILIENCE**

- People
  - Livelihoods
  - Small Villages
  - Quality of Life
  - Health
- Economy
  - Developmental Pressures
- Livelihoods
- Natural Hazards
  - Seasonal Floods
  - Drought
- Economic Hardships
  - Developmental Pressures
**Strengthening Pesca Limpia Fisheries**  
**Puerto El Flor, Bahia Jiquilisco, El Salvador**

**URBDP 508A Studio, University of Washington, Autumn 2016**  
Jackson Blalock | Master of Landscape Architecture  
Cheryl Klotz | Master of Urban Planning

### Build in Phases

**Step by Step**

Build in phases. Take time to make plans, implement each step, monitor outcomes, and adapt to emergent and evolving conditions. Take the next small step when resources become available.

### Site Adjacencies

- Tidal inlet: supply
- Highway: demand + distribution
- Community: support

### High Tide Landing

- Secure gear boxes
- Red mangrove restoration
- Rhizophora marina
- High degradation
- Galvanized steel grating
- Removable modular dock
- Assembly via welds or wire less susceptible

### Pesca Limpia Wharf

- Saltwater (sea water)
- Pesca Limpia Wharf
- Steel (galvanized)
Strengthening Pesca Limpia Fisheries: Economic and Social Networks

Opportunity thrives in specialty niches in transition zones between bordering systems. Leverage edge niches’ capacity for multifunctionality and biodiversity to support systems’ health on both sides of the edge.

Reinvest in the community. Use local resources, materials, and labor in ways that increase their quality and abundance. Leverage outside investment to build local capacity.

Create Synergistic Relationships

“Clean Fishing” PESCA LIMPIAD Local Self-Regulation

“Clean Water” AGUA LIMPIA

“Clean Food” COMIDA LIMPIA

Mercado Limpia

Mercado Limpia = Galpón eyes on the water, eyes on the street - adjacent and synergistic nodes

phased market build-out initial ideal frame, deck, roof, calm, wet wall non-structural walls installed over time

multi-function shelter community collaborates boardrainwater catchment solar power flood hub

Multi-Sectoral partnerships with community groups, non-profits, government, and businesses can yield synergistic benefits especially when engaging groups that work at different scales, from neighboring businesses to international funders.

Cheryl Klotz | MUP & Jackson Blalock | MLA
URBDP SOBA El Salvador Studio University of Washington, Autumn 2016
Bringing Home-Based Businesses to the Public Realm
Ru’a Al-Abweh | Master of Urban Planning, URBDP 508A Studio, University of Washington, Autumn 2016

Initial Insights and Inspiration: A Focus on Women and Youth in Ciudad Romero

Challenges
- Public spaces are unsafe or perceived as unsafe.
- Family breakdown makes youth & women vulnerable to gangs.
- Lack of job opportunities and education subject both women and youth to harm from the gangs, whether direct or indirect.

Opportunities
- Desire for a sense of community that will allow people to stay in place and prosper.
- Request for opportunities to expand local enterprise and build entrepreneurial capacity.
- Desire for a local market, in an accessible area, not necessarily permanent.
- Existence of and interest in women’s home businesses.
- Desire to keep youth engaged and job opportunities.

Community Swatches
- Support Households
  - A focus on home-based businesses
  - Supporting existing home-based businesses
  - Encouraging new home-based businesses
  - Providing new opportunities for women and youth

First Proposal and Lessons Learned

Design focus area AFTER lessons learned

Design focus area BEFORE lessons learned

Rethinking the Concept: Gendered Space and Thresholds

Gender Segregation & Privacy

Complete Gender Merging & Publicness

Design Swatches

A Story of Community Collaboration in Ciudad Romero

Three people living in Ciudad Romero...

Teodora, a talented cook... spent her time at home... cooking pupusas! and made street furniture!

Beltran, a young man... with a bike & cart... who ride around the town!

Carlita, a creative artist... gathered some materials... and made street furniture! They all wanted to find a way to make money, & have fun! meet people, & have fun!

So they joined forces... packed up the furniture in the cart, biked to market...

And opened an outdoor pupuseria!
Activate

How can you arrange these prototypes in different places and on different occasions to temporarily activate public space?

Regular Day

Market Day

Festival Day

The circled letters are references to clarify which prototypes are shown in the three scenarios below, “Regular Day”, “Market Day”, and “Festival Day”. What else can you create?
Community Design, Planning, and Development in the Bajo Lempa, El Salvador

Fostering Community Resilience through A Native Medicinal Garden

Sylvia Janicki | Master of Urban Planning & Landscape Architecture, URBDP 508A Studio, University of Washington, Autumn 2016

Community Swatches

Supportive Green Network
Natural landscapes offer cultural, economic, social and ecological assets to the community. Strengthening the natural landscape mosaic can help improve community health and build social and economic capacity.

Uniquely Usulutan
Design interventions and programs that build upon and strengthen local identity help create a sense of place and belonging. Understanding the unique history and identity of a community and using that analysis to inform design is an important step in our design process.

Regional Issues
Consequences of Unsustainable Land Management
- Increased deforestation to expand production capacity
- Exacerbated Flooding
- Diminished water tables and polluted water sources
- Damaged and destroyed local crops from pesticide drift
- Kidney deficiency and respiratory ailments

Community Scale Strategies
Creating a Supportive Green Network

Uniquely Usulutan
In 2008, El Salvador registered the world’s highest mortality rate from **KIDNEY FAILURE**.
In the village of Ciudad Romero, almost **EVERY** family has at least **ONE** member dying of chronic kidney disease, including teenagers and young adults.

Medicinal Garden: Community Connections + Programming Opportunities

- **La Coordinadora**
  - Provides human resources and training to guide programming and management for capacity building

- **Market**
  - A place for residents to sell herbs and added-value products from medicinal garden

- **Bus Stop**
  - Garden as destination for regional foot traffic

- **Medicinal Garden**
  - Provides herbal medicine from native plants for use or to sell at markets while offering educational, leadership, and technical programming opportunities to targeted populations.

- **Green Houses**
  - Can be used to grow seedlings and propagate medicinal plant species for garden

- **Women’s Center**
  - Organize herbal medicine and gardening training programs and for women at medicinal garden

- **Cafeteria**
  - Can harvest and use culinary herbs from medicinal garden

- **Clinic**
  - Use plants for alternative medicine, healing space for patients & families, recreational space for staff

- **K-8 School**
  - Use medicinal garden as resource for environmental education & technical training for youth

- **Households**
  - Attain seeds or cuttings of medicinal plants to grow at home, increasing accessibility of herbal medicine
Plant Meaningful Places
Native plants and plant communities provide ecological function. Plantings can be used for place-making through visual aesthetics and symbolism, provide programming opportunities to strengthen community bonds, and highlight traditional ecological knowledge.

Multifarious Healing
The healing process is different for everyone. Providing diverse amenities and resources to support different paths to recovery can better accommodate individual needs and strengthen community wellbeing.

A Survey in Nueva Esperanza, Ciudad Romero and La Canoa shows that 64% of adult residents uses medicinal plants
21% of the residents of the areas surrounding the forest Nancuchiname obtained medicinal plants.

Site Design

Site Plan + Phasing

Phase I: Seed collection + plant propagation
Phase II: Formalized demonstration gardens
Phase III: Trees + peripheral planting
Phase IV: Shade structure/outdoor classroom

Design Concept
The garden embodies the local landscape with native plants that have historical and cultural values. The design layout considers accessibility, providing resting places and allows for different forms of healing.

Planting Concept + Plant Palette

1. Dermatology
   - Amaranthus spinosus
   - Aristolochia grandiflora
   - Commelina erecta
   - Hamelia patens
   Treats skin conditions & infections, eczema

2. Infectious Diseases
   - Ageratum conyzoides
   - Trianthus prostratus
   - Solanum myriacanthum
   - Lantana camara
   Treats bacterial, fungal & viral infections

3. Cardiology
   - Aristolochia arquitecta
   - Psittacanthus calyculatus
   - Petiveria alliacea
   Treats hypertension & cardiovascular diseases

4. Gastrointestinal
   - Lippia spp.
   - Solanum diphylum
   - Lantana camara
   Treats digestive problems, stomach pains

5. Diabetic/ Metabolic
   - Ambrosia cumanensis
   - Lygodium spp.
   - Solanum diphylum
   Supports kidneys and metabolic function

6. Anti-Cancer
   - Aristolochia arquitecta
   - Solanum myriacanthum
   Contains anti-cancer properties

7. Immunity
   - Aristolochia grandiflora
   - Petiveria alliacea
   Supports immune function, anti-inflammatory

8. Respiratory
   - Psittacanthus calyculatus
   - Petiveria alliacea
   Treats cough & respiratory infections