



Environmental Justice CSU Justice Roundtable Series

EJCSU Roundtable Brief #2

“Constructing Just Sustainability: EJ & the Built Environment”

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This brief is based on the Environmental Justice Roundtable Series hosted by the Environmental Justice Working Group (formerly EJCSU), which is supported by School of Global Environmental Sustainability’s (SoGES) as one of its Global Challenges Research Teams (GCRT). The series began on February 12, 2015. For more information about EJCSU, please visit their website at: (<http://environmentaljustice.colostate.edu/>)

This document is part of a series of roundtable briefs highlighting how environmental justice is conceptualized, discussed, researched, and put into practice locally, regionally, and globally. The purpose of these briefs is to highlight the variety of contexts within which environmental equity and justice (EEJ) frameworks are imperative. In particular, the goal is to emphasize the transdisciplinary nature of EEJ, highlighting common themes and differences of interpretation and application that emerge in the EJ community at Colorado State University and among additional colleagues in our network. This particular roundtable brief is focused on issues of EJ and the built environment.

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constructing JUST SUSTAINABILITY

Environmental Justice CSU Roundtable Series: EJ & the Built Environment
Wednesday, March 11, 2015 12-2pm ■ Design Lab, C 102-105 Aylesworth



Please join our distinguished roundtable members (clockwise from the left): Dr. Rodolfo Valdes-Vasquez from Construction Management, Dr. Katherine Leigh from Design and Merchandising, Dr. Jane Choi from Landscape Architecture, and Dr. Jeni Cross from Sociology as they briefly address these questions and outline how their work relates to environmental justice and the built environment in order to catalyze discussion. These CSU scholars have conducted research and informed policy at the local, national and global levels.



Photo by Jacqueline Chandler, Courtesy of FEMA

This roundtable event is an opportunity for scholars and practitioners to informally discuss issues associated with EJ in the built environment.

- How accessible are our cities?
- Are the poor recognized in urban renewal?
- Is justice for some used to make others invisible?
- To what extent are the location and quality of our buildings equitable?
- How does our built environment influence disaster preparedness and vulnerability?
- Which elements of the built environment are privileged?

Following our 'Water Justice' Roundtable, The 'EJ and the Built Environment' Roundtable is the second of several forthcoming justice roundtables that will be hosted by Environmental Justice CSU, a SoGES Global Challenge Research Team (GCRT). Future roundtables will explore environmental equity and justice across a range of issue areas including the climate and energy, food, biodiversity and ecosystems, institutions and governance, and health. These informal roundtables are intended to facilitate the formation of transdisciplinary teams that can produce innovative research and teaching on environmental equity and justice.



Light refreshments will be provided.

Executive Summary

“Constructing Just Sustainability: EJ & the Built Environment” was the second roundtable event in the Environmental Justice CSU’s ongoing environmental justice roundtable series. Professors Jane Choi (Landscape Architecture), Jeni Cross (Sociology), Katherine Leigh (Design and Merchandising), and Rodolfo Valdes-Vasquez (Construction Management), led the roundtable with comments about the place of equity and environmental justice in their research on the built environment. Tara Shelley (Sociology) introduced our Groups and facilitated the roundtable.

Panelists’ initial comments highlighted the extent to which personal experiences in each of their own lives led them to an interest in issues of equity and justice in the built environment. Jane discussed her neighborhood in Boston, where in her daily life she witnessed “the deleterious impacts that inequitable distribution of urban infrastructure, both good and bad, can have on a community.” Jeni discussed the way in which working in community development in Fort Collins changed her understanding of how environmental justice goes beyond unequal exposure to environmental harm and includes unequal opportunities for accessing environmental benefits. Katherine expanded on the importance of environmental equity and justice in Fort Collins, discussing her work with The Matthews House. She also drew on EJ issues from her research experience at the Rosebud Reservation in South Dakota, and internationally in Costa Rica and Indonesia. Finally, Rodolfo reflected on growing up in Panama and working in the construction industry. For him, seeing the way in which the neighbors in his low income community were affected by working in construction led him to view worker safety as an important aspect of EJ.

A common thread throughout the panelist’ discussion was the extent to which they spoke about incorporating their students into solution-focused EJ projects. In the open discussion, questions of regulation, policy, and scale were discussed. There was broad agreement that solving issues related to the environment, sustainability, and EJ requires an interdisciplinary, “whole systems” approach. Throughout the roundtable, several new ideas and projects were discussed, including the Urban Lab, the LENSES (Living Environments in Natural, Social, and Economic Systems) framework, the New Urbanism movement, and Sustainability Rating Systems such as Leadership in Energy and Environmental Design (LEED), Living Building Challenge (LBC), and Envision.

The roundtable addressed key questions about EJ and the built environment:

- How can we improve communities’ built environments while retaining/creating equitable access?

- How can we reduce residential segregation in the U.S.?
- How can we improve the environmental and social conditions of places?
- How can we create thriving public spaces where people can gather?
- What can we learn from previous designs that can help us make better spaces?
- How do we address disparity between cultural needs and the built environment?
- How do we address environmental justice issues in the workplace?

Event and Panelist Introduction

The second EJCSU roundtable event took place on March 11, 2015 at the Design Lab of Aylesworth Hall (C102-105). Professors Jane Choi (Landscape Architecture), Jeni Cross (Sociology), Katherine Leigh (Design and Merchandising), and Rodolfo Valdes-Vasquez (Construction Management), led the roundtable with comments about the place of equity and environmental justice in their research on the built environment. The roundtable was attended by an additional sixteen people, including faculty, graduate students and undergraduate students. Attendance was quite diverse in terms of disciplines.

Tara began the round table with an introduction to the Environmental Justice CSU group, highlighting how our Global Challenges Research TEAM (GCRT) works to identify key questions of equity and justice in the six SoGES focal areas.

Jane Choi – Environmental Justice through Landscape Architecture

Jane Choi opened as our first panelist, outlining her work as a landscape architect and professor in the CSU Landscape Architecture program. For Jane, her interest in equity and environmental justice (EJ) in the built environment stems from her personal experiences at the beginning of her career in Massachusetts. Her family moved into a Boston neighborhood called Roxbury, a former redlined neighborhood. Jane recounted:

“It was here where I saw and experienced first-hand the deleterious impacts that inequitable distribution of urban infrastructure, both good and bad, can have on a community...By the standards of this community, we were certainly among the more affluent residents. But yet, that advantage couldn’t negate the sometimes oppressive conditions that we experienced on a day-to-day basis there. This was an area that had long been served by diesel and COG buses. It’s an environment where my son, who suffers from asthma, spent the first six years of his life, and I can’t say for sure whether all those idling buses in my neighborhood caused his

asthma. Statistics reveal that there is a strong correlation between these types of neighborhoods and extremely high asthma rates. So in many ways environmental justice isn't just an abstract idea that affects other people. For me it's rather personal."

Since that time, Jane has partnered with non-profits to try and enhance recreational opportunities in disadvantaged neighborhoods where the typical recreational area may consist of patches of asphalt and compacted dirt.

At Colorado State University, Jane is involved with the Institute for the Built Environment (IBE) and University Connections. These organizations have provided her an outlet to continue working on community planning and urban design, which is where she is most focused currently, and where she sees an ability to have a large impact on equity and EJ. She and her colleagues noticed gaps between city planning and citizen needs, leading to the development of the Urban Lab, which Jane describes as *"a new advocacy action education organization focused on a much more inclusive process for bringing everyone to the table and trying to improve the conditions, the built environment, for all communities."*

Jane discussed the way in which EJ can be brought into her work as a professor, and described the "LENSES" framework for master planning that she uses to engage her students. The framework stands for Living Environments in Natural, Social, and Economic Systems. Jane and her students developed a metric to analyze neighborhood amenities and resources, and to what extent student proposals address resource "distribution, diversity, and vitality". This added considerations of EJ and equity into the student curriculum that they otherwise would not get.

To see more about Jane's work, check out her profile on the Department of Horticulture and Landscape Architecture page [here](#).

Jeni Cross – Environmental Justice and Equitable Access to the Environment

The second panelist, Jeni Cross from the Department of Sociology, began by defining what environmental justice means in her work noting:

"When I first thought about it as a sociologist, and much of the early research on this was focused on the uneven exposure to environmental harm, but when I think about it related to community development, the issue is about the

inequitable access to environmental benefits. There's an irony and paradox in community development that as soon as you start to improve the environmental conditions of a place by having more trees and having it be a place that people want to be, you start increasing the economic disparities."

Jeni focuses mainly on the built environment in the U.S., and locally in Fort Collins. She encouraged the group to think about the following questions: (1) How can we improve communities' built environments while retaining/creating equitable access? (2) How can we reduce residential segregation in the U.S.? (3) How can we improve the environmental and social conditions of places? (4) How can we create thriving public spaces where people can gather since private spaces have become dominant? (5) What can we learn from previous designs that can help us make better spaces?

One solution to some of these challenges is called the "New Urbanism" movement. But, over time, this solution can also end up creating disparity:

"Even when you build a New Urbanist development that has homes and apartments and townhomes and large homes and condos, the whole income diversity that makes an ideal neighborhood and that can possibly fix the inequity, even when you do that, those tiny homes that start out in the affordable bracket, that might be affordable to people in the second and third quintiles, those homes, because of the natural amenities around them and the social amenities in that space, because of the environmental benefits, appreciate faster. So what might have been accessible to people under the median income, now, after 10 years, is only accessible up front."

Jeni also touched upon the way in which transportation presents equity and EJ challenges in the built environment. She demonstrated this as a local issue in Fort Collins highlighting the lack of public transit service on the Western side of the city, an area with a lot of residences designated as affordable housing. She suggested that despite the recent redesign of the city transportation system, this section of the city remains underserved. She explained further:

"That neighborhood also happens to have one of the highest crime rates. The city knows it's densely populated, it has affordable housing, it has a high crime rate, and yet they did nothing to improve public transportation... We know that that neighborhood needs service, and we can't even make it a priority when rerouting bus lines to ask what is the most fundamental question, which is, 'Who most

needs bus service?’ And we don’t put bus service there. And we know what makes it a workable bus service, and we didn’t do it.”

To see more about Jeni’s work, check out her profile on the Department of Sociology page [here](#) or at the Institute for the Built Environment [here](#).

Katherine Leigh – Environmental Justice At Home and Abroad

Katherine Leigh, Department of Design and Merchandising, was the third panelist to speak, and discussed an array of projects where her work has intertwined with equity and EJ in the built environment around the globe. Like Jane, Katherine sees her work in social justice causes as very personal. The driving force in her work is her belief that *“all individuals, regardless of where they live, internationally or not...no matter where in the world, they deserve to have some physical surrounding that they live in that’s safe, that’s secure, and allows them to dream or to hope for the future.”*

Katherine discussed examples of environmental justice that she has seen in classrooms in Costa Rica and when teaching in Jakarta. She also has been involved in issues of equity and EJ while working with a variety of marginalized groups in the U.S.—from adults with cognitive limitations, to culturally problematic HUD houses at Rosebud, a Native American reservation, and locally working with teens at The Matthews House. Her discussion of HUD houses shows the disparity between the built environment and cultural needs within a built environment:

“In Native American culture, you get a house from HUD and then you want to build and have all your family live around you in a circle...There’s no place when they go hunting to skin whatever they’re hunting, there’s no place to cure it. There are some problems there... The housing style didn’t meet the lifestyle.”

Katherine also took the time to inform roundtable attendees about the hosting room, which was developed as a sustainable workspace for design students. She explained that:

“But one of the things that was important for us is to have things that really represented—I’m LEED accredited, and I wanted to have things in the room that I could be really proud of in terms of its quality. So we reused things. We painted out the existing tiles that are up there...the room’s been wonderful in terms of teaching because it is a lab. You’re sitting in a lab that I collect data from. Probably about every six months I have a pre- and two post-surveys and focus

groups that I do with the students here. It really was a lab for collaboration, looking to increase creativity. So I'm sure you've heard on campus the 'flipped classroom' approach? This is not a flipped classroom. This is a collaborative studio which takes care of all needs."

To see more about Katherine's work, check out her profile on the Department of Design and Merchandising page [here](#).

Rodolfo Valdes-Vasquez – Environmental Justice in the Workplace

Rodolfo Valdes-Vasquez, Department of Construction Management, was the final roundtable participant to discuss his work in the context of equity and EJ in the built environment. He also spoke to the way in which his personal experiences influenced his interest in EJ and the built environment—growing up in Panama he became aware of a lack of safety concerns in the construction industry. After studying abroad, he returned to Panama and became involved in helping to develop construction safety programs and construction safety classes. He sees this as an issue of EJ as:

"The safety and health risk is something that we forget sometimes with construction. Here in the U.S., it's well developed. There are a lot of regulations, but in other countries probably that's another case. One of the important pieces about construction is understanding who are really building these infrastructures and facilities. At the end of the day, it's a lot of workers who are part of these projects and they are members of the surrounding communities. So for me, it was a big deal coming from a low-income family where I saw a lot of the neighbors working on construction projects and seeing how they were affected by the unsafe construction processes."

When developing some of his research back in 2008, Rodolfo tried to integrate construction programs and the social sustainability dimension into infrastructure projects—hoping to move beyond the environmental sustainability aspect of green certified buildings such as LEED. Rodolfo points out:

"You're trying to achieve a high-energy efficiency building, but sometimes these projects are not a safe project for the workers or even for the occupants the project after they are built. That was a big question for me at that moment, how I can tackle this. So I started reading more about sustainability, looking at the

intersection not only about the environmental piece, the economic and the social components. I became more passionate about social sustainability, and that's where my research focuses, social sustainability in the construction sector, which goes further than just safety."

There are other rating systems that have moved beyond LEED, and one Rodolfo mentioned was 'Envision', which pushes us to think about additional questions of equity and EJ in the built environment:

"It's not only about the buildings where we are receiving education or where we live, but also, what is around our communities? What are the transportation systems that we need? We need to start thinking about those other aspects... What is the state of the community? How can we make sure that that knowledge that that community has can be implemented in the design of these projects?"

Rodolfo touched on engaging several stakeholders in the process of planning, design, construction, and maintenance. He suggested the need to implement design charrettes and community involvement and follow ups. To do so, he emphasizes the importance of collaboration to his students, and hopes to instill passion in them by telling them *"You have the opportunity to solve these problems, but you need to know how to collaborate with others and you need to understand the perspective of various stakeholders, so it's not only your solution as a future professional."*

To see more about Rodolfo's work, check out his profile on the Department of Construction Management page [here](#).

Open Discussion

On the basis of these self-reflective introductory comments we moved on to an open discussion, led by Tara who thanked Rodolfo for expanding our discussion to the workplace. She noted that *"When we think about environmental justice, we think about it in terms of where you live, but also where you play and where you work. I'm really glad that you brought in the work element, because we often forget about environmental justice issues in the workplace."*

After the rest of the roundtable attendees introduced themselves, the discussion returned to the topic of EJ and the built environment in the context of the workplace. We discussed appropriate protective gear on the work site, and the displacement that can often accompany

new developments. The conversation moved to the necessity for regulations, and adherence to them, with Jeni noting that this is an important area of work for political scientists. She suggested that regulation is key, as “the reason that construction workers in the U.S. are wearing steel-toed boots is not because any consumer insists on it, but because of regulations.” She continued, *“So where’s the balance? Sometimes when people think we need social change, the first easy tangible tool is policy and regulation. But I think there’s a question of when policy and regulation is the most effective and what we need and when do consumers have the power to influence a market?”*

This discussion also teased out the relationship between EJ and consumerism, which could perhaps serve as its own topic for another EJCSU event.

During the discussion there was talk of the “rebound effect,” and how sometimes we end up shifting our behaviors in ways that are not necessarily more sustainable or just (i.e. we may buy a Prius but consequently drive more miles than we would without a Prius).

The group deliberated on questions of scale, and there seemed to be agreement that solving problems related to the environment, sustainability, and equity and EJ requires a “whole systems” approach. An interdisciplinary approach to these issues is essential, and it ties back to behavior. Jeni demonstrated this:

“The answer always, to all of these things, echoes what Rodolfo said earlier, that good design comes from understanding who people are and how they use things. So when design is done by engineers separate from the people who are using it and they think, ‘We have this new thing that’s more energy-efficient or more water-efficient’ or whatever, and it’s not really attached with how people use it, it is possible to put an aerator on your shower and reduce water consumption, or not. If the water pressure is so bad and you’re a woman with long hair, your shower just goes from being five minutes to being 15 minutes, because it takes 10 minutes to get the stuff out of your hair.”

In recognizing the multiple disciplines represented at the roundtable, the event concluded with the attendees discussing what key principles of EJ they would like others to teach in their discipline. Responses to this included collaboration and engaging students in real-world EJ projects.