ENVIRONMENTAL JUSTICE

+

LANDSCAPE ARCHITECTURE

a students' guide

WELCOME!

This guide was written by three masters of landscape architecture students who wanted to learn more about how landscape architecture can promote social justice and equity through design. In 2016 we became the student representatives for the ASLA's Environmental Justice Professional Practice Network so we could better connect the important work of professionals, academics, and activists working towards environmental justice with students. This guide is a response to our own desires to educate ourselves about environmental justice and share what we learned. It is a starting-off place for students - a compendium of resources, conversations, case studies, and activities students can work though and apply to their studio projects. It is a continuously evolving project and we invite you to get in touch to give us feedback, ask questions, and give us ideas for this guide.

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THANK YOU

HOW TO USE THIS GUIDE

The goal of this guide is to lead students of landscape architecture through a class studio project while viewing the design process through the lens of environmental justice. We want to prepare students for a career that keeps in mind equity and designing for equitable communities. We lead the students through the design process, which we define as research, engagement, design, building, and maintenance. Each step in the design process has case studies, interviews, and activities so students can critically investigate environmental justice issues relating to their design project, deepen their design, and ultimately make it more equitable.

What will this guide help you do?

1. Learn about environmental justice and how landscape architects can play a role in designing equitable and healthy communities in each stage of the design process.

2. Use the Studio Workbook Pages to help you incorporate these topics into your studio project.

3. Find case studies for each step of the design process from student projects to built works.

4. Hear from leading landscape architects and recent graduates about how they work toward environmental justice in their projects and research.

5. Find resources written by leaders in the environmental justice field and non-profits working toward equity.

WHAT IS
ENVIRONMENTAL JUSTICE?

Environmental justice is achieved when all people regardless race, color, national origin, gender, or income live in neighborhoods free of health hazards, are able to enjoy equal access to safe, healthy places, and participate meaningfully in the planning of their communities (adapted from US EPA).

Landfills, industry, and other types of high-pollution uses have historically been disproportionately concentrated in low-income, minority, and native communities. In the 1980's, the environmental justice movement emerged from local community struggles over the siting and operation of toxic and waste sites in black and Hispanic communities. Residents affected by these hazards mobilized against various thrwweats to their health from pollution, leaks, and contamination and tapped into the discourses of the civil rights movement to create change through advocacy and lawsuits. Over time, the definition of environmental justice has expanded to not only address the presence of health hazards, but also lack of access to resources, such as to public transportation, parks, and fresh food.

In addition to environmental burdens and lack of access, marginalized groups have not historically had a voice in urban planning and policy-making, and therefore have not been able to advocate for urban design changes that would benefit their health and well-bring. Design for environmental justice invites everyone to the table to consider policy and design decisions using participatory and inclusive tools. This process is highly localized, contextual, and grounded in the circumstances of each community, its problems, and visions for the future.

healthy places

ENVIRONMENTAL JUSTICE

access to resources

participatory design

KEY MOMENTS IN THE ENVIRONMENTAL JUSTICE MOVEMENT

1958-1964   Civil Rights Movement

Movement which seeks to end racial segregation and discrimination.

1964   Civil Rights Act

Prohibits the use of federal funds to discriminate based on race, color, and national origin.

1968   Cesar Chavez and Dolores Huerta

Fights for workplace safety conditions for migrant farm workers.

1982   Warren County Protests

Residents mobilize against a planned hazardous waste landfill in an African-American community.

1983   General Accounting Office Report

Shows that hazardous waste sites in were disproportionately located near black communities.

1986   West Harlem Environmental Action

Forms to fight the impacts of a sewage treatment plant on the neighboring community.

1987   United Church of Christ Commission Racial Justice Study

Examines the relationship between hazardous waste site locations and the minority communities, especially African American and Hispanic Communities.

1991   First National People of Color Environmental Leadership Summit

Adopts 17 principles of environmental justice.

1994   Executive Order 12898

Federal actions to Address Environmental Justice in Minority Populations and Low-income Populations.

2001   Sustainable South Bronx

Forms to advocate for parks and green development in South Bronx.

2004   Office of Environmental Justice

Based on a series of 15 pilot projects, OEJ, part of the EPA, formulates a collaborative process model: articulating the need for cooperation between stakeholders.

2005   Hurricane Katrina

Devastates communities in Gulf Coast. Raises issues of environment, disaster, disaster-response, at-risk communities and race.

2006   National Environmental Justice Environmental Advisory Council

Report highlights issues of gentrification and displacement in brownfield communities.

2011 EPA Plan EJ 2014

A roadmap to reduce environmental risks and encourage "healthy, sustainable and livable communities", especially in disenfranchised populations.

2014 Flint Water Crisis

As a result of insufficient water treatment, residents of Flint, Michigan were exposed to high levels of lead poisoning. Issues of race, class, public health, and environmental injustices were exposed in the state and federal level.

Learn more:

D. Bullard, Robert & Johnson, Glenn & King, Denae & O. Torres, Angel. (2014). Environmental Justice Milestones and Accomplishments: 1964-2014

What trends do you notice?

How has the definition of Environmental Justice changed and broadened over the years?

What is the relationship between policy, protests, and academia?

HOW DOES LANDSCAPE ARCHITECTURE RELATE TO ENVIRONMENTAL JUSTICE?

Participatory Design and Planning

Everyone should participate in design and planning decision-making, regardless of:

Race
Ethnicity
Class
Income
Gender Identity
Sexual Orientation
Age
Indigenous Status
Ability

Healthy Places

What are some environmental issues that create an unhealthy place?

Air Pollution
Accidental Hazardous Releases
Waste Incinerators
Brownfields + Contaminated Sites
Lack of Maintenance + Neglect
Climate Change
Flood-Prone
Drinking Water Quality

Quality of Water bodies

Access to Resources

What are some critical resources that everyone should be able to access?

Green Space
Healthy Food
Transportation
Affordable Housing
Jobs

Equitable Design

Environmental Justice is expressed in the landscape as equitable design. As the designers of cities, neighborhoods, and places, landscape architects have an incredible capability to shape human experiences. With this in mind, it is our responsibility to design places that incorporate environmental justice and do not accelerate or create environmental injustices. We can reach this goal by adopting equitable design practices..

Equitable design is both a process and an objective. As a process, equitable design taps into the tools of inclusive and participatory design with communities. Equitable design is one that promotes environmental justice as an explicit objective though the creation of healthy places and access to resources.

1. Participatory Design and Planning

To plan and design equitable, healthy communities, landscape architects must listen the needs of residents, especially those who have been historically excluded from decision-making processes. When landscape architects and community members design together, decision-making is shared and help address oppression, exclusion, and inequality. Participatory design techniques, such as community visioning workshops (pages 11-13) help landscape architects facilitate constructive design experiences with residents to design vibrant places that challenge environmental injustices.

2. Healthy Places

The design of healthy, equitable and inclusive open spaces, such as parks and schoolyards, are a key part of how landscape architects help balance the scales of environmental justice. Simply increasing the number of trees in a neighborhood has been shown to increase air quality, which can ease asthma in children. Additionally, open spaces can alleviate stress related to living in an urban environment. A study by English psychologists on early mortality found that income-related health disparities were greatest in areas with the smallest amount of green spaces. Low-income groups with poor access to green space were more than twice as more likely to die than their neighbors. In neighborhoods with greater access to green space, they lived much longer.

3. Access to Resources

Landscape architects can work with urban planners and other related professionals to design cities and communities where access to green space, transportation, and healthy food is abundant and equally distributed. At the site-scale, access to resources can include issues of accessibility for those with disabilities, children, and the elderly.

PRINCIPLES OF
EQUITABLE DESIGN

What guiding principles for equitable design can we use when approaching a project? How do we assess a project to see if it is supporting equity? The work of landscape architects can intentionally support environmental justice by integrating principles of equitable design into their design projects. These 7 general principals have been informed by the 17 Principals of Environmental Justice as written by the First National People of Color Environmental Leadership Summit held on October 24-27, 1991,

1. An equitable design process is inclusive to all, ensuring that marginalized populations typically excluded from decision-making are actively involved.

2. An equitable design should promote the equal distribution of resources such as clean air, clean water, healthy food, transportation, and open space. Conversely, the design should equally distribute the burden of unavoidable risks among all populations and mitigate and remediate pollutants.

3. An equitable design is inclusive to all, allowing everyone feel welcome and free from discrimination.

4. An equitable design does not accelerate neighborhood gentrification or the displacement of people from their homes.

5. An equitable design empowers marginal users through spatial design and by providing amenities that are usable and accessible to all people.

6. An equitable design does not produce or distribute pollutants hazardous to public or ecological health.

7. An equitable design includes a long-term plan to prevent the project from falling into disrepair and compromising the safety or accessibility of the space.

What else would you add to these principles?

8.

9.

10.

DESIGN PROCESS

these ideas are meant complement your own design process - use elements how they best work for you

Research the past and present conditions of the site and the surrounding areas through spatial analysis, on-the-ground research, and archival research.

Engage with community members, leaders, and organizations that have access to and utilize, or potentially could utilize, the site.

research
pages 6-9

engagement
pages 10 - 13

steward
pages 22 - 24

Establish **Stewardship** of the space after the project is built. Reflect on the community members, stakeholders, and organizations. Who will maintain and take care of the space?

design
pages 14 - 17

Design with community members and organizations. Learn to identify the values, and concerns within the public. Establish community ownership of the project.

build
pages 18 - 21

Build with community engagement and participation in mind. Learn of methods and case studies that incoporate the community in the construction process.

1 CONTEXT RESEARCH

What do we know about our site?

While we can never have a complete understanding of the myriad social, ecologic, political and historic elements of a site, it is critical to evaluate the existing context of a project location. Assessing the context of a site, both past and present, helps us begin to understand needs and desires of the local community as they relate to physical space. To do so, you can use tools of evaluation, such as GIS data, historic maps, and census data, and tools of observation achieved by visiting the site and taking notes on the activities and people that pass through.

Most studio classes include a site visit to the project location. While you're there, take note of the people that use the site (if any), how they arrive, how they use the site, and how long they stay. Then, return home and using census information and the EPA's EJ Screen tool, work to understand the demographics of the neighborhood, its changes over time, and the potentially unseen environmental and health hazards.

Learn More:

Articles   Purlido, Laura. 1996. A critical review of the methodology of environmental racism research. Antipode 28(2) 142-47.

Burgess, J., Harrison, C. M., and Limb, M. 1988, People, parks and the urban green: A study of popular meanings and values for open spaces in the city. Urban Studies, Vol. 25, 455

Walker, Gordon. 2009. Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice. Antipode, 41(4) 614–6

Woch, J., Wilson, J.P., & Fehrenbach, J. 2013. "Parks and Park Funding in Los Angeles: An Equity-Mapping Analysis".

Books   Exploring the Nexus: Bringing Together Sustainability, Environmental Justice and Equity
Julian Agyeman, Robert D. Bullard and Bob Evans

How Racism Takes Place. George Lipsitz

Landscapes and Race in the United States. Ed. Richard Schein. Routledge

ACTIVITY 1: DIVE INTO CURRENT USES + HISTORY

## TOOLBOX

US EPA's EJ Screen
www.epa.gov/ejscreen

The EJ Screen tool is a national environmental justice mapping and screening tool that combines demographic data with environmental and health hazard indicators such as:

* Air toxics cancer risk

* Respiratory hazard index

* Diesel fuel particulate matter

* Traffic proximity and volume

* Lead paint

* Proximity to Potential Chemical Accidents

* Proximity to Treatment Storage and Disposal Facilities

* Proximity to Superfund Sites

* Stream Proximity and Toxic Concentration

1. Using maps and GIS datasets, make a diagram of the community's assets and hazards. A community asset is a place that enriches the community by fostering neighborhood connections and providing social services For example, a church, school, grocery store, and park are assets. Community hazards have the potential to be detrimental to the health and well-being of the community. Landfills, polluting factories, hazardous waste sites, and brownfields are all environmental and health hazards. What community assets lie within 1 mile of your site? What community hazards lie within 1 mile of your site?

2. Visit http://factfinder.census.gov and find the city your site is within. Sketch a pie chart of the neighborhood composition of race, income, and education in the pie chart. Then, find the same information for 30,20, and 10 years ago. Has the neighborhood changed over time? If it is, what are the general trends?

3. Use the EPA's EJ Screen tool (see Toolbox sidebar) to assess relationships between local demographics and environmental and health hazards at your project site.

KEY QUESTIONS

What are past uses of the site and its surroundings? Any history of pollution or contamination?

What are the modes of access to and through the site? Are there barriers to transportation?

Who has historically used this site and its surroundings?

How has the site been cared for? Has it been neglected, or is it well-maintained?

Is there a relationship betwen demography and proximity to environmental and health hazards?

Are there signs of informal use?
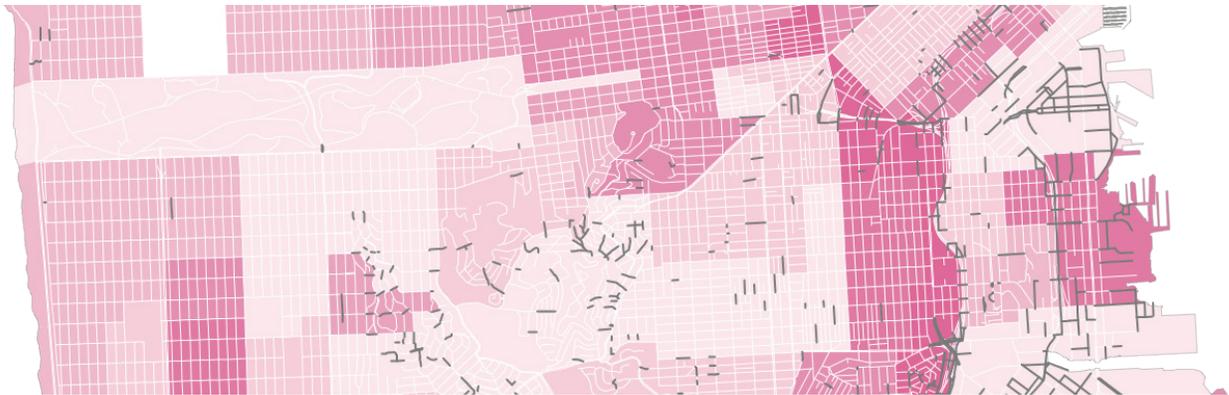
LOCAL CODE
SAN FRANCISCO, CA

Nicholas de Monchaux
UC Berkeley

Local Code used GIS to analyze 1500 city-owned remnant parcels in San Francisco, the area of which is half the size of Golden Gate Park. These parcels were often in areas with highest environmental risks, such as respiratory hazards, carcinogen quotients, reported crimes, stormwater flooding, and airborne particles.

Local Code Project   http://demonchaux.com/Local-Code-San-Francisco

SOUTH BRONX GREENWAY
NEW YORK CITY, NY

MNLA
Sustainable South Bronx
The Point

South Bronx Greenway project was initiated by Majora Cater and Sustainable South Bronx to create access and open space in Hunts Point and Morris Neighborhood - an industrial area that hosted only one-fifth the NYC recommended open space. The collaborative project involves multiple community organizations, including Sustainable South Bronx, non-profit The Point, as well as governmental agencies, on-site industries, and landscape architecture firm Mathews Nielsen. The design seeks to improve air and water quality through tree plantings and green infrastructure, as well as catalyze compatible economic development along the Greenway.

MNLA Project Description
Sustainable South Bronx
Interview with Majora Carter

Mia Lehrer

Mia Lehrer is the president of studio-MLA, which seeks to use landscape to improve quality of life. Known for her advocacy for sustainable and people-friendly public places, she has led the design and implementation of public projects including sky-lighting Silver Lake Reservoir, Los Angeles River Revitilization Master Plan, San Pedro Waterfront, Natural History Museum of Los Angeles County, and Vista Hermosa Park. She earned her Landscape Architecture degree from Harvard University's GSD, and continues to lectures and teach internationally. Recently, she served on Obama's Fine Arts Commission and was awarded ASLA's LaGasse Medal.

INTERVIEW

When did you become more involved in environmental justice issues?

In the eighties, there was a sense of responsible design that dealt with natural resources and method of understanding of systems. The way that we talk about environmental justice now is associated with people; where they live and what communities seem to be disadvantaged and ignored. But these aspects were not so present in the conversation back then. But I grew up in Latin America, where respect for nature and the idea that protecting nature is important, was very present. For me, environmental justice became more tangible in Los Angeles when I started doing public work. Through the work, I got a much clearer understanding of the issues plaguing big cities and of the inequities existing at the many levels.

Most of your work is located in Los Angeles. How has that shaped your work?

It was important staying connected to this region with people who aren't Landscape Architects but just people who cared a lot about healing the land and doing right. There are so many community leaders and groups doing amazing things. When I was on the board of some of these committees, I would absorb all this knowledge. All these groups ended up creating these coalitions. People in our firm participate on these coalitions, which means we're engaged in the conversation: if there's a call to action, we're at the table. At this point, the group has an impact, and it's been very satisfying just to have seen that grow.

Starting out, did you have to advocate for the community engagement in your work?

I think we had to advocate for how important it was. We had to emphasize the importance of education in the community process: It's important to understand the decisions that you're making.

The first part of engagement is to make people feel at ease. The next step is to educate people on the choices that they have and the differences between the choices. I think we just went deeper into what one could get out of the process. We worked to make sure that people can go all the way through the process and build upon knowledge. There's a difference in the level of transparency on the other side of the equation. Some people think that the community can design the park and that bothers me. I think that programming is important, the experiences that you want. The community is not designing the park but weighing in what the park might be.

When I initially started practice, there was community engagement but very few people showed up. I think the expectations are stronger now. On the Los Angeles River project, there's much more participation from the wider community then there used to be. Now, there are politicians are listening to the public sphere.

What are the different venues that you use and different strategies that you use to be inclusive in community engagement?

We use churches and schools libraries as touch points to make sure that the information is out there. We work with non-profits that help with community engagement. Unfortunately, we work at a very sad moment where people are afraid to participate. We had to make sure that first generation or immigrants knew that the process was transparent- groups didn't even think voting made a difference- that it didn't matter. I like to think that collisions make a difference-touching base with people around issues that concern them in Los Angeles. I would advocate for going to speak at meetings and meeting people who are doing interesting work and finding platforms to get people together.

2 ENGAGEMENT

What are the needs and desires of the community?

Community engagement during design and planning produces a design that meets the needs of a diverse group of residents and helps build support for the project. Obtaining input from groups not historically engaged in planning ensures that decisions are informed by a variety of perspectives and are better for the health of the community as a whole. However, many minority, low-income, tribal, and overburdened residents face barriers to participation in public processes, such as a lack of time, transportation, no childcare, and language barriers.

Strategies for effective community engagement include identifying local stakeholders, conducting community assessments, holding community visioning workshops at local institutions, and multilingual outreach. Meetings such as community assessments and visioning workshops help define a shared vision and goals for a site. It is then critical to host public meetings at key stages in the design process to get feedback as the design progresses.

A vital first step in the community outreach process is to identify local group sand community hubs, such a churches, schools, and nonprofits. Then, these constituents should be invited to a community assessment meeting. Complete Activity 2 to identify local community groups, and start listening to the stories they have about their communities and places.

Learn More:

Articles   Crewe, Katherine, and Ann Forsyth. 2003. LandSCAPES: A typology of approaches to landscape architecture. Landscape Journal 22 (1): 37–53

Juarez, Jeffrey A., and Kyle D. Brown. 2008. Extracting or empowering? A critique of participatory methods for marginalized populations. Landscape Journal 27(2): 190–204

McNally, Marcia. 1999. Leader, advocate, or facilitator? What is the best model for landscape architects' involvement in the community-design process? Landscape Architecture 89(2): 50–51

Melcher, Katherine. 2013. Equity, Empowerment or Participation: Prioritizing Goals in Community Design. Landscape Journal 32: 167-182

Griffin, Toni L., Cramer, D. and Powers, M. 2014. Detroit Works Long-Term Planning Project: Engagement Strategies for Blending Community and Technical Expertise. Buildings. 2014, 4, 711-736

Books   Community Design Primer. Randy Hester. Ridge Times Press (1990).

EPA Public Participation Guide

Resources/Reports   The Charrette Handbook: The Essential Guide for Accelerated, Collaborative Community Planning . Bill Lennertz and Aarin Lutzenhiser. *American Planning Association* (2006).

ACTIVITY 2: START BY LISTENING

Community input is a critical aspect of any place-based design project. The first step in the process is to identify trusted local leaders and community groups that will help you identify neighborhood assets and opportunities. This activity is adapted from Noah Billig's "Start by Listening" exercise in *Design by Democracy.*

1. Go online and find local community groups such as non-profits, sports clubs, churches, and schools that may be affected or interested in the design of your project. Make a list of their names and contact information.

2. Ask your studio professor to arrange a community meeting and invite the groups you have identified. If this isn't possible, reach out to members of the group via email or phone. Ask them if they wouldn't mind answering questions about their community. If they agree, ask open-ended questions to facilitate a discussion. Try to set aside your potential goals and objectives for the project, and practice engaged listening.

Lets say you are identifying opportunities for open space in a neighborhood and are speaking with a local high school teacher. Here are some sample questions you may ask -

- What do you like about your community?
- What do you think could be improved in your community?
- Are you satisfied with the open spaces in your community?
- What would you like to see added to open spaces in your community?
- Do you frequently visit or use open spaces?
- Can you tell me any stories about the kinds of activities that occur in your neighborhood's open spaces?
- Who do you see using the neighborhood open spaces?
- What do you know about historic uses or environmental risks in your community?

3. Remember to follow-up with the community members who answered your questions after your role in the design has been completed. Some examples could be giving the local community group the final studio boards for further development or helping them research local grants they can apply for to fund the project.

KEY QUESTIONS

What barriers to communication exist? Language? Availability of free time?

What is an effective way to advertise a community meeting to the neighborhood?

Can you communicate the intended outcome of the project succinctly and simply?

What are the needs, desires, and expectations of the community this design will serve?

ACTIVITY

11TH STREET BRIDGE PARK
WASHINGTON, DC
Building Bridges Across the River
OMA+ OLIN

Learn More:
Bridge Park
OMA
Olin
Building Bridges Across the River
Equitable Development Plan

11th Street Bridge Park, a collaboration of Ward 8-based non-profit Building Bridges Across the River and OMA + OLIN, will span across the Anacostia River to connect two geographically divided and historically disparate neighborhoods. With an emphasis on recreation, environmental education and the arts, the Bridge Park design relied heavily on extensive community input and consultative process with more than 1,000 stakeholder meetings for design development and impact. Designed to promote social and economic equality, the design includes a sloping X design to encourage interaction, studies of neighboring urban farms, and art installations.


LOS ANGELES RIVER MASTER PLAN
LOS ANGELES, CA
Studio-MLA

Learn More:

Los Angeles River Master Plan
Mia Lehrer ASLA Interview

The Los Angeles River Revitalization Master Plan is the result of over 10 year of activism and collaboration between public agencies and stakeholders. The plan, shaped by intensive research and engagement, alters the current channelized flood control infrastructure into a public space, with significant ecological and social benefits. Significant research, which included transportation infrastructure, land ownership, property jurisdiction, open space types, hydrology, water velocity, groundwater basins, contamination plumes, youth density, zero car households, pedestrian gap, bicycle and equestrian gap, was collected and synthesized into a comprehensive analysis of the natural and social systems in the area. Research was supplemented by public workshops, held along the length of the river, in parks, schools, community centers, and public facilities, with all interested parties.
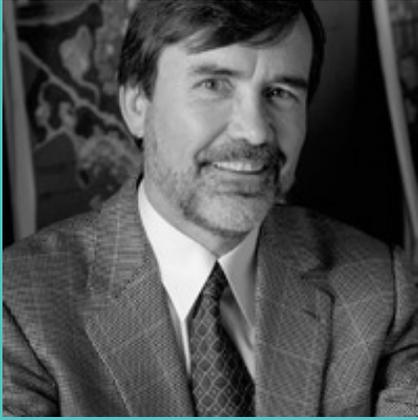
Kurt Culbertson

Kurt Culbertson, FASLA, is the Chairman and CEO of Design Workshop. He is currently pursuing a doctorate from the Edinburgh College of Art. Culbertson has been a key voice in the profession's call for a greater emphasis on social, environmental, and economic equality as a key part of the design process. Culbertson has been a leader in speaking about environmental justice and landscape architecture, as well as focusing on inclusive design processes in multiple built projects such as the Lafitte Greenway and the South Grand Boulevard Great Streets Initiative.

INTERVIEW

How did you get interested in environmental justice?

Some of it comes from having grown up in the south, and my own personal awareness of social and economic disparities. At Design Workshop, the 2008 recession put us into a position where we had to reinvent the types of work that we were looking for and doing. As a part of this reconsideration, we started doing projects in New Orleans and St. Louis primarily in the lower income or underserved parts of these cities.

What are some of the projects you've worked on that are working for environmental justice?

In 2008 we were hired to do a revitalization project of the South Grand corridor in St Louis. The project was a 6 block corridor surrounded by neighborhoods that were lower-income and have traditionally been immigrant communities. This road changed a lot over time - originally it had been a place where there was street parking and fewer lanes, but over time the city changed it to accommodate as many lanes of traffic as possible to get people out of the city. As a part of this process we prioritized community meetings and community input. Eventually were able to create a design that brought back some of the amenities that the people in the neighborhood were looking for such as on-street parking and plantings that highlighted this as an area for the people that live there.
One of the biggest lessons that we learn from this project was that we were able to make a positive change with a very minimal construction budget. We learned that what most important to the residents was not some of the finer details that sometimes we think about as Landscape Architects, but just that the street be walkable and usable for the residents that live there.
After this project, we continued to work in St. Louis on projects including the St. Louis Transit Oriented Development Study.

Are there people in our field you've looked to over the years or currently who inspire you for their work in this field?

There are several people whose books that I've read who have influenced me. For example Edward Soja's writing about spatial equity and distribution of resources at a city scale, as well as the work of Robert Bullard. Randy Hester, Kofi Boone and Diane on Jones are also doing great work in the field.

Can you talk about your dissertation and how your work in environmental justice has influenced your work?

The topic of the dissertation is the application of historic ecology to vacant land policy and shrinking cities, specifically looking at New Orleans, St Louis, and Detroit. I've been studying risk facing under-served populations, specifically geophysical and technological risks like the presence of roadways or power lines and industrial properties, and by extension pollution and the presence of resources.
Part of my dissertation has been looking at historical structures such as zoning, racial covenants, and red lining that have ultimately created what Kofi Boone calls racialized topography; topography can separate people both racially and economically. We also need to look at where cities choose to invest money and how that affects this racialized topography. Finally, I've been studying equity mapping and the need to visualize and evaluate environmental justice.

Do you have advice for graduating students who want to do work focused on enivronmental justice?

If you're interviewing with firms, see if the issue of environmental justice or spatial equity come up. It's also possible to deal with these questions in the nonprofit and public sectors; for example, the cities of Los Angeles and Denver just gave a talk at ASLA about the work they're doing focused on equity. Firms need to be addressing these issues as they are important to clients as well.

3 DESIGN ✏

"What makes you happy?"

Participatory design is an approach to actively involve all stakeholders in the design process in order to design to the needs or desires of those involved, and to increase use of the site. This process can be thought of as an exchange of knowledge; the designer can help educate the public on potential choices or limitations, and in turn, community members can share relevant information, and desired outcomes, or concerns. The final design can incorporate the values and issues that the involved stakeholders and communities speak to, potentially aiding in the future use and stewardship of the design.

The role of the designer in the participatory design process operates on spectrum, and can vary on the designer or situation. It is important to operate in a transparent manner, and be able to articulate the designer's role, stakeholders' role, any constrictions of the site and/or budget, time frame, and process.

Read about different case studies that included different participatory design techniques; one relies on a series of community meetings while in the other, the users were the designers. Scroll through the resources to learn more about different design engagement styles. Think about your project. Think about your role as a designer. What is the best way to ensure the site is accessible and open to all? How might you engage with the community to design your project? What limitations or challenges might you address to the community? What would your role as designer be? Complete Activity 3 to design a potential community visioning workshop.

Learn More:

Articles   Boone, Kofi. Black Landscapes Matter Ground Up Journal.

Spirn, Anne Whiston. 2005. Restoring Mill Creek: Landscape Literacy, Environmental Justice, and City Planning and Design. Landscape Research. 2005

Hirsh, Alison B. 2005. From "Open Space" to "Public Space": Activist Landscape Architects of the 1960s. Landscape Journal

Books   Design as Democracy: Techniques for Collective Creativity. 2017. Edited by David de la Peña , Diane Jones Allen, Randolph T. Hester Jr, Jeffrey Hou, Laura J. Lason, and Marcia J. McNally.

The Arsenal of Inclusion and Exclusion: 101 Things that Open and Close the City. 2015. Interboro Partners. Actar

Resources/Reports   Inside the LA Studio with DesignJones

Design and Social Impact Report. National Endowment for the Arts. *Cooper-Hewitt, National Design Museum*

Websites   Artplace
National Endowment Designing Equity
National Endowment for the Arts- Our Town
Detroit Collaborative Design Center
Tulane City Center
Places for Public Space

ACTIVITY 3: DESIGNING A COMMUNITY VISIONING WORKSHOP

TOOLBOX

EPA's Public Participation Guide

https://www.epa.gov/
international-cooperation/
public-participation-guide-
introduction-guide

National Park Service's Community Toolbox

https://www.nps.gov/orgs/rtca/
resources.htm

Planning a Visioning Charette

http://www.artscapediy.org/
Creative-Placemaking-Toolbox/
Who-Are-My-Stakeholders-
and-How-Do-I-Engage-Them/
Planning-a-Visioning-Charrette.
aspx

Universal Design Resources

https://projects.ncsu.edu/www/
ncsu/design/sod5/cud/about_
ud/udresourcepage.htm

In Activity 2 you explored potential users of the site and identified stakeholders and asked them questions about their place-based experiences. Based on your intended outcomes, goals, community, and design scope, plan a collaborative design activity could engage with community members about the concerned issues and collection of values that should inform ideas for program and site design. Plan an activity that could engage with the public and facilitate conversations about these issues and values through the design. How would you facilitate it? What are the intended goals and outcomes?

Here are some ideas to get you started:

1. Determine your role in the design process. Are you a collaborator, facilitator, leader, ect. What is the role of the stakeholder-participants?

2. What are the limitations/challenges to the site? How would you introduce them to the public.

3. What are the possibilities/ choices to the site? How might you share them to the stakeholders?

4. What type of information do you wish to obtain? In what format?

5. What are the types of questions that you would ask?

KEY QUESTIONS

Is the design welcoming and accessible to all people, regardless of age, race, income, and disabilities?

What venues am I using to receive feedback on the design? How often am I receiving feedback?

Am I communicating the design intentions effectively and clearly?

How does the design strengthen existing communities?

How does the design preserve and build on features that make a community unique?

How does the design promote public health?
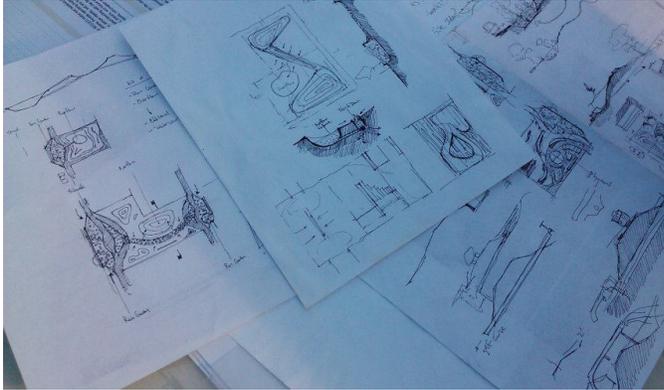
PARISITE SKATEPARK
NEW ORLEANS, LA
Transitional Spaces
Tulane City Center

Learn More:
Parisite Description
Parisite Skatepark Facebook

Parisite Skatepark is New Orleans' first skateboard park designed by and maintained by local skaters, who also helped raised funds for the park. Catalyzed by the desire for a formal skate park, Transitional Spaces, a coalition of skateboarders, enlisted the help of Tulane City Center to aid in the creation of a recognized and supported recreational park. The creation of a master plan, storm water management, signage, and a formal entrance transformed the vacant highway underpass.

103RD STREET COMMUNITY GARDEN
NEW YORK CITY, NY
SCAPE
New York Restoration Project

Learn More:
SCAPE project description

In collaboration with New York Restoration Project (NYRP), SCAPE led a design-build project in an historically-underserved area in Harlem. The process started with a public charette, and eventually led to a "park-raising" day. The community feedback led to the diverse programming strategy, which allowed for the preservation and relocation of valued trees and plants. The site was built by volunteers over a few months on a low-cost budget. The resulting site had vegetable plots, basketball courts, picnic area, playground, and shade structures complete with a water collection system.

Kofi Boone

Kofi Boone is an Associate Professor of Landscape Architecture and North Carolina State. Professor Boone focuses on the changing nature of communities, and developing tools for enhanced community engagement and design. Through scholarship, teaching, and extension service, Professor Boone works in the landscape context of environmental justice, and his research includes the use of new media as a means of increasing community input in design and planning processes.

INTERVIEW

How do you define environmental justice?

I think there's probably a couple different definitions, and the definition is what is made it difficult for its integration into landscape architecture. The term environmental justice talks about the need to address the disproportionate impact of environmental hazards on people of color. In the case of landscape architecture it's all over the place, and that's one of the challenges, especially because the founders of the environmental justice movement were not designers. The challenge in terms of our definition of landscape architecture is that at its core it's a fee for service profession in which case there are clients and there are sites and a certain amount of resources that are required to transform a landscape, and environmental justice communities are often not in the position to make decisions about a landscape, are not a client, and don't have the capital to leverage the change that's required.

How do you find yourself education the next generation of landscape architects about environmental justice in the classroom and in studio projects?

The studio is one way to do it. I know the landscape architecture students really want to make a difference, and they want to get their hands dirty and make some change happen in their college career. And that's really hard, because some of the problems that these communities are facing have been around for a really long time, so on one hand it's kind of naive to expect direct impact as the only outcome of being involved in a studio project for someone who is still learning the basics of landscape architecture. That's overburdening students and there has been some damage done to communities by certain naive proposals no matter how well intentioned they are. So part of what I'm trying to do is introduce it as an area early on in their careers to be aware of it and structure advanced studios and opportunities at the end of their academic career when they've already developed a skillset in landscape architecture and then they apply it to these really challenging problems.

You mentioned that when you do focus the studios on environmental justice it's typically an advanced studio because you want students to have a skill set that they can contribute. What sorts of skills are needed to tackle these problems? What do you see as the suite of capabilities that a student should have when approaching these problems?

There are soft skills and hard skills. In terms of hard skills, let's say you're dealing with a community that has already expressed that they don't have equitable access to public space and the studio is going to find a way to create public space. It helps to have a basic knowledge of site analysis, to be able to generate good base map information, to have knowledge of grading planting and materials. If you don't have to worry about those basic foundations and you know a little bit about how public space work then you can think about how it works within an environmental justice context.

The soft skills are really about interacting with environmental justice communities. The skills that you learn in terms of how to speak and communicate clearly, how to be patient, and how to listen before you propose designs. Those sorts of soft skills you can talk about this in class all you want but it's really an opportunity for people to learn about people that are different from them and build rapport and use that information to deliver solutions.

4 BUILD

How might we build our project in an inclusive way?

How will construction decisions contribute to the design in a meaningful way? Determining how the project will be built can help inform the design itself. While studio provides few opportunities for built projects (with some exceptions, including University of Washington's Design/Build lab), research into the built options could help inform the design. The scale, materials, machinery, and labor forces might play into the design. An understanding of community's available skills, knowledge, and and labor could further shape the potential outcome.

Community-built works aim to empower residents, improve ownership, and create a place of interdependence. Examples of community-built works include guerrilla gardening, vacant lot revitalization, and barn-raising playgrounds.

In this section, learn about two different community-build case studies: "Fog Water Farms" and "Activating Land Stewardship and Participation in Detroit". Both case studies create frameworks which are used by local communities to create and build projects in their own neighborhoods. Consider your own project. How might it incorporate local knowledge, skills, and materials in the build process? Try working through Activity 4 to gain insight into the approach you would take at your site.

Learn More:

Articles   Hirsch, A. B. 2015. "Urban Barnraising: Collective Rituals to Promote Communitas." Landscape Journal. 34(2), 113-126.

Books   Hou. Jeffrey, ed. 2010. Insurgent Public Space: Guerilla Urbanism and the Remaking of Contemporary Cities. New York: Routledge

Linn, Karl. 2007. Building Commons and Community. Oakland, CA: New Village Press.

Websites   University of Washington Design/Build

Resources   Creative Placemaking

A Best Practice Primer for Inclusive Design- ASLA

ACTIVITY 4: BULD IT

TOOLBOX

Consider machinery-free planting methodologies, like the Bare Root Method:

http://www.hort.cornell.edu/uhi/outreach/pdfs/bareroot.pd

Crowdsource tools and equipment with a Tool Share Program

https://www.peerby.com/

Check out University of Washington's Past Design/Build Projects here:

http://larchwp.be.washington.edu/features/designbuild/

Think about your design through the construction of the project. How can you engage with environmental justice tactics to improve its accessibility and use to all involved public? Will the community be involved in the building process? Determine your role as facilitator, the community's role, the design itself, and the communication involved. Create a plan for community involvement.

1. Assess the build process and the level/scope of community input. Will this be contractor built or community-built? If the community is involved, where and when will the community be involved? If the community is involved, continue onto step 2

2. Consider the level of structure and openness of the construction process. Determine amount of structure versus the amount of improvisation that will occur during construction. Will this differ at different places, and different phases at the project?

3. Create a game plan for your volunteers. How will you differentiate between the areas of structure and of looseness? How will you communicate this differentiation about the structure of the projects?

KEY QUESTIONS

What materials am I using? Are they local?	What methods have I set up to continue to engage with the site?
Think about possible contractors? Are they local? WBE or MBE?	How am I thinking about the wide array of abilities, skill sets, that are contributing to the design?
How am I engaging the community with the build process?	What machinery is needed at the site? What operational skills are required?

FOG WATER FARMS
LIMA, PERU
Informal Urban
Communities Initiative
University of Washington

Learn More:
IUCI Projects
UW Design/Build

The Fog Water Farms is collaboration between faculty and students from University of Washington, collaborators form Universidada Nacional Mayor of San Marcos, and professional designers from Engineers without Borders and Architects without Borders-Seattle and informal communities in Lima, Peru. Located in a desert city with 9 million people, but limited annual rainfall and water supplies, the program aims to design alternative water sources. The project implements a way to capture and convert fog into clean water that can be used for drinking, irrigation, and everyday household use. It allows for food cultivation, and community collaboration. The easy capture method is easily created, applied, and utilized on a local level.

FIELD GUIDE TO WORKING WITH LOTS
DETROIT, MI
Detroit Future City

Learn More:
DFC Field Guide
ASLA Award
Knight Cities Awards

The Field Guide to Working With Lots is an interactive website and booklet which provides tools for vacant land stewardship in Detroit. The Field Guide collects and synthesizes and disseminates local knowledge of vacant land transformation: providing both past examples, and future possibilities. These actionable and accessible strategies include 34 design types, profiles of local land stewards, and directories and cost estimates. The booklet also includes a workbook to provide a process for collaborative project development.

David de la Cruz

David de la Cruz graduated with his Masters of Landscape Architecture in 2017 from University of Washington and is now working as a Project Manager with the Los Angeles Neighborhood Trust. At U of W, David was a participant in the Informal Urban Communities Initiative centralizing the importance of community-based and participatory research. He is interested in working at the intersections of youth education, community engagement, and contextualizing historical injustices to approach healthier and just futures for historically oppressed communities in urban areas.

INTERVIEW

What about your past experience led you to want to study landscape architecture?

In high school I was exposed to some local organizations operating around environmental justice in southeast Los Angeles, specifically an organization called Communities for a Better Environment. This provided me with a vocabulary to know what environmental racism is, and for what that means to the Latino community I come from. They provided me with an understanding of what it means to look at the built environment with an understanding that these injustices exist. They taught me about what it means to engage with local agencies and state agencies, and to have your voice heard. That led me into the field of urban planning and Chicano studies for my undergraduate education. So, from urban planning I had a general, larger understanding of how systems work and what landscapes mean at a regional level. I soon started getting interested specifically in community engagement and what it means to empower local residents and for a community to be involved and to speak out and address environmental racism. I was interested in understanding how to build communities and get their input on local, site-specific projects so naturally led me into landscape architecture.

What did your education in landscape architecture at University of Washington teach you about tackling social inequality?

I was fortunate enough to travel abroad and get some experiences in Cambodia and in Peru through the Informal Urban Communities Initiative with Ben Spencer. Through my work with this initiative, I was able to learn from vulnerable populations in Peru, specifically the community of Eliseo Collazos outside of Lima that has little access to water. They are considered a slum area so there's a constant threats of displacement. We wanted to help address the issue of water scarcity, so we developed a relationship with an organization called Peruanos Sin Agua, who create

fog collection devices. We brought that idea to the community and they were able to identify sites and what it would look like in that area. We helped them figure out how to get the material to build it, know how it works, and how to maintain it. I was only there for three or four weeks but we were heavily involved in starting the phase of preparing the community to know what it means to have a fog collector.

Was it difficult to establish a short-term relationship with a community when you were only there for a couple weeks? How do you deal with that kind of relationship?

One of the things that was really important for us to consider was that once we were out of the picture, what does long-term sustainability look like? We made connections between the community that we were working with and the people that we were accessing to distribute this organization, Peruanos Sin Agua, a regional organization. It was important for us to make sure that this connection was made and that it was with someone the community can reach out to if they needed the help. We recognize that our role was to catalyze and help fund the project and make sure they are committed to moving it forward and sustaining it.

How would you like to see students get involved in environmental justice?

From my time at University of Washington I learned to reach out to local environmental justice organizations to know what the field looks like in whatever area you are interested in living in or studying in. Knowing what environmental justice looks like locally and regionally is really important. It's good to know different organization's models and theory of change, and to be mindful that there's a lot of different organizations that are doing this work and as landscape architects how we can plug ourselves in with the vast technical skills that we have.

5 STEWARDSHIP ⍦

How does the project continue on?

What will happen to your design after it is built? Stewardship addresses the ongoing care and maintenance of a place over time. Often, a city's public sector organizations, like a Parks Department or a Department of Transportation lack the budget or time to adequately care for green spaces. Thus, public involvement in urban environmental stewardship plays an important role in the maintenance of green spaces.

Communities find innovative ways to integrate positive individual, neighborhood, and environmental outcomes. While stewardship in community-based management's key outcome is the ongoing maintenance of open space assets, the community bonds and personal benefits fostered through the care of these places are often what keeps people involved in stewardship practices.

Successful frameworks for stewardship are diverse and vary widely, but can include strategies such as establishing a volunteer "Friends of the Park" group or a partnership with local schools to integrate landscape care and maintenance into the curriculum. Often, grassroots stewardship practices extend out to become partners with non-profit organizations, local, state, and federal-level government, and universities.

Activity 4 prompts you to develop a landscape management plan that stewardship groups can use to guide them in the maintenance of the site.

Learn More:

Articles   Westphal, Lynne. (2003). Urban greening and social benefits: A study of empowerment outcomes. Journal of Arboriculture. 29. 137-147.

R. Kaplan and S. Kaplan (2005) Preference, Restoration, and Meaningful Action in the Context of Nearby Nature. In P. F. Barlett (Ed.) Urban place: Reconnecting with the natural world. Cambridge, MA: MIT Press. (Pp. 271-298)

Naussaur, J. 1995. Messy ecosystems, orderly frames. Landscape Journal 14 (2): 161–170.

Selman, Paul. 2004. Community participation in the planning and management of cultural landscapes. Journal of Environmental Planning and Management 47 (3): 365–392.

Books   (Re)Constructing Communities: Design Participation in the Face of Change (Conference Proceedings from the 5th Pacific Rim Conference on Participatory Design), ed. Jeffrey Hou, Mark Francis, and Nathan Brightbill. Davis: Center for Design Research, University of California, Davis.

ACTIVITY 5: LANDSCAPE MANAGEMENT PLAN

TOOLBOX

Arnold Arboretum Landscape Management Plan

https://www.arboretum.harvard.edu/wp-content/uploads/AA_LMP_Summary.pdf

Center for Universal Design

https://projects.ncsu.edu/www/ncsu/design/sod5/cud/index.htm

National Invasive Species Infocenter

https://www.invasivespeciesinfo.gov/index.shtml

EPA's Green Infrastructure Website

https://www.epa.gov/green-infrastructure

Design a management plan for your site to provide guidelines for how community volunteers can best take care of this site. Landscape Management Plans should include the following elements when applicable:

1. **Landscape Management Approach** - This section is an overview of priorities in the landscape design. What does your design emphasize? Safety? Accessibility? A naturalistic aesthetic or a manicured look?
2. **Planting Palette** - If plants die, what species of plants should take their place? E.G. Provide a range of low-allergen options that maximize pollution filtration and carbon sequestration.
3. **Materials Palette** - Where should mulch be applied? E.G. Provide guidelines on how to keep paths even for walkability.
4. **Landscape Management Schedule** - A detailed schedule of regular upkeep tasks. How often should the lawn be mowed? How often should volunteers remove invasive weeds?
5. **Landscape Management Areas** - What areas of the landscaping require maintenance? What about trash collection?
6. **Weed Management** - What are some common invasive plants or weeds that are likely to show up in the landscape? How can they be removed without the use of chemical herbicides?
7. **Water Plan -** How will stormwater be dealt with on-site? How do you ensure the preservation of local water quality?

KEY QUESTIONS

What educational opportunities can be incorporated into the care of the place?	What city, state, and federal grants are available for maintenance and stewardship?
Are there local non-profits or land conservation groups that may be willing to act as stewards?	How will maintenance reflect local resources (i.e. money, volunteer or staff time, water)?
Are there existing neighborhood improvement groups with volunteers that may be willing to help out?	If there are partners, what are their roles?

THE VIET VILLAGE URBAN FARM
NEW ORLEANS, LA
Mossop + Michaels

Learn More:
Project Description

The Viet Village Urban Farm project aims to restore local farming to the New Orleans Vietnamese community, after the neighborhood was damaged by Hurricane Katrina. In response to the devastation, the traditionally agrarian Viet Village community sought to re-establish local farming through the creation of 30 acre communally-farmed land and farmer's market centered at the heart of the community. The farm is comprised of family-sized garden plots, larger commercial plots to service the local restaurants and grocery stores, and a traditional livestock area with chickens and goats. The food grown on site will sold at the proposed market, which also acts as a central community space for Vietnamese communities in the larger Gulf area. The project would act as a generational draw, and would create opportunities for transfer of traditional farming skills from one generation to the next.

WATTS COMMUNITY GARDEN
LOS ANGELES, CA
From Lot to Spot

Learn More:
FLTS Project Description
Viviana Franco ALSA interveiw

From Lot to Spot (FLTS), LA-based non-profit, partners with disadvantaged communities to support the development of neighborhood healthy spaces. One such initiative, Watts Community Garden, began when David Starr Jordan High School enlisted the help of FLTS to transform the adjacent vacant lot into a community garden. Residents in Watts have one of the lowest access to green space LA county, and one of the highest poverty rates. Through extensive community outreach, FLTS listened to voices in the community to design, build, and maintain the space. With the aid of landscape architects, and the Los Angeles Conservation Corps, within months the lot was transformed into a community green space. According to Viviana Franco, FLTS executive director, "Having a community's voice translated into action in an apt fashion makes them feel as though their voice truly matters in shaping their community—that they can get involved, be engaged, and really create an impact in their neighborhood."

FOUNDATIONS of ENVIRONMENTAL JUSTICE BOOKS

1. **Dumping in Dixie: Race, Class and Environmental Quality**, Robert Bullard, 1990

2. **Forcing the Spring: The Transformation of the American Environmental Movement**, Robert Gottlieb, 1993

3. **From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement**, Luke W. Cole, 2000

4. **The Quest for Environmental Justice: Human Rights and the Politics of Pollution**, Robert Bullard, 2005

5. **Environmental Justice: Concepts, Evidence, and Politics**, Gordan Walker, 2012

6. **Toxic Wastes and Race at Twenty: Why Race Still Matters After All of These Years**, Robert Bullard, 2008

7. **Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility**, Dorceta Taylor, 2014

REPORTS + ACADEMIC ARTICLES

1. NEJAC. **Ensuring Risk Reduction In Communities With Multiple Stressors**: Environmental Justice And Cumulative Risks/Impacts: National Environmental Justice Advisory Council Cumulative Risks/Impacts Work Group 2004.

2. **Unintended Impacts Of Redevelopment And Revitalization Efforts In Five Communities**: National Environmental Justice Advisory Council, A Federal Advisory Committee To The U.S. Environmental Protection Agency 2006.

3. United States Environmental Protection Agency. (2009). **Addressing environmental justice in EPA brownfields communities**. Washington, D.C.: Environmental Protection Agency, Soild Waste and Emergency Response. Retrieved from http://purl.fdlp.gov/GPO/gpo5869.

4. Sheila Foster, **Justice from the Ground Up: Distributive Inequities, Grassroots Resistance, and the Transformative Politics of the Environmental Justice Movement,** 86 California Law Review 775 (1998).

5. Uma Outka, **NEPA and Environmental Justice: Integration, Implementation, and Judicial Review**, 33 Boston College Environmental Affairs Law Review 601 (2006). OTHER

6. **17 Principles Of Environmental Justice**. Delegates To The First National People Of Color Environmental Leadership Summit October 24-27, 1991 1991. United Church Of Christ Commission For Racial Justice.

7. **Environmental Justice Comic Book.** http://cuer.law.cuny.edu/wp-content/uploads/2012/08/Mayah_EJ_MAG.for-uploading.pdf

FOUNDATIONS of
ENVIRONMENTAL JUSTICE
ORGANIZATIONS

1. **We ACT for Environmental Justice**
https://www.weact.org/

2. **EJ Foundation**
https://ejfoundation.org

3. **EPA's Environmental Justice Division**
https://www.epa.gov/environmentaljustice

5. **Indigenous Environmental Network**
http://www.ienearth.org/

6. **National Black Environmental Justice Netowrk**
http://www.nbejn.org/

7. **WECAN** (Women's Earth & Climate Action Network)
http://wecaninternational.org/

8. **Americans for Transit**
https://www.americansfortransit.org/

9. **Food First**
https://foodfirst.org/

10. **Out Right International**
https://www.outrightinternational.org/

11. **Asian Pacific Environmental Network**
https://apen4ej.org/

1. **Design for Democracy: Techniques for Collective Creativity**. Edited by David de la Pena, Diane Jones Allen, Randolph T. Hester Jr, Jeffrey Hou, Laura J. Lason, and Marcia J. McNally

2. "**Social Consciousness in Landscape Architecture Education: Toward a Conceptual Framework**." K.D. Brown and T.J. Jennings. Landscape Journal. Volume 22, No. 2. Copyright 2007

3. Spirn, Anne Whiston. "**Restoring Mill Creek: Landscape Literacy, Environmental Justice, And City Planning And Design**." Landscape Research (Http://www.Annewhistonspirn.Com/Pdf/Spirnmillcreek2005.Pdf) 30.5 (2005): 359-77.

4. Lawson, L. (2005). **Dialogue through design: The East St Louis Neighborhood Design Workshop and South End Neighborhood Plan**. Landscape Journal, 24(2), 157–171.

5. **Happy City: Transforming Our Lives Through Urban Design** by Charles Montgomery

6. Halprin, Lawrence. 1970. **The RSVP Cycles: creative processes in the human environment.** G. Braziller.

7. Hester, R. 1990. **Community Design Primer**. Ridge Times Press, Mendocino, California

8. Byrne, J. 2012. **When green is white: The cultural politics of race, nature and social exclusion in a Los Angeles urban national park**. Geoforum 43, 3: 595-611.

9. **From "Open Space" to "Public Space": Activist Landscape Architects of the 1960s.** Alison B. Hirsh

10. United States Environmental Protection Agency. (2014). **Environmental justice: key resources for building a community of practice for local use planning**. [Washington, D.C.]: United States Environmental Protection Agency. Retrieved from http://purl.fdlp.gov/GPO/gpo61023

11. **Environmental Justice and Land Use Planning**, American Planning Association (2010). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1827195

1. **National Endowment for the Arts- Our Town**
Explore creative placemaking projects funded by NEA and browse through the project insights.
https://www.arts.gov/exploring-our-town/

2. **National Endowment Designing Equity**
https://www.arts.gov/artistic-fields/initiatives/designing-equity

3. **West Harlem Environmental Action**
https://www.weact.org/

4. **West Philadelphia Project**
 http://www.wplp.net/

5. **Detroit Collaborative Design Center**
http://www.dcdc-udm.org/

6. **Places for Public Space**
https://www.pps.org/

7. **Community Design Collaborative**
https://cdesignc.org/

6. **Tulane City Center**
http://small.tulane.edu

7. **The Neighborhood Design Center**
http://www.ndc-md.org/

DESIGN PROCESS
TOOLKITS

1. **EPA EJ Screen**
https://ejscreen.epa.gov/mapper/

2. **Trust for Public Land's Park Score**
http://parkscore.tpl.org/#sm.0000h7gd5pbbkf4btfq2pffelwwcl

3. **Racial Equity Toolkit by Local and Regional Government Alliance on Race and Ethnicity**
http://www.racialequityalliance.org/2015/10/30/racial-equity-toolkit/)

4. **EPA Public Participation Guide**
https://www.epa.gov/international-cooperation/public-participation-guide-charrettes

5. **Human Design Toolkit by IDEO**
 http://www.designkit.org/resources/1

6. **Tactical Urbansim by Street Plans Collaborative**
https://issuu.com/streetplanscollaborative/docs/tactical_urbanism_vol.1

DESIGN PROCESS
ETC.

1. Landscape Architecture Foundation's Summit on Landscape Architecture Declarations
https://lafoundation.org/news-events/2016-summit/summit/declarations/

2. Inside the LA Studio with DesignJones
Learn more about the environmental justice work of DesignJones, and its ground-up approaches to planning and design.
https://vimeo.com/200687474

3. Community Participation Methods in Design and Planning
A resource to understand principles and methods of community design written from the design professional's perspective.
Author: Henry Sanoff; Publisher. Publisher: John Wiley & Sons, New York, 2000

4. Design Charrettes for Sustainable Communities A step by step guide to more synthetic, holistic, and integrated urban design strategies to create more green, clean, and equitable communities.
Author: Patrick M. Condon. Publisher: Island Press, 2007

5. Livability 101 American Institute of Architect resource to help communities, architects, and public officials understand the basic elements of community design and take advantage of existing tools, strategies, and synergies at the policy, planning and design levels.
Authors: Megan M. Susman and Francisca M. Rojas.
Publisher: American Institute of Architects, 2005

6. The Charrette Handbook: The Essential Guide for Accelerated, Collaborative Community Planning
A comprehensive step by step guide for how to plan and hold a successful charrette. Based on the NCI Charrette Certificate Program curriculum developed by the National Charrette Institute.
Authors: Bill Lennertz and Aarin Lutzenhiser.
Publisher: American Planning Association, 2006

Scorecard.Org. "**Environmental Justice**". 2005. http://scorecard.goodguide.com/community/ej-index.tcl.

ICLEI. "**Star Community Index**". http://www.starcommunities.org 2009.

United States Environmental Protection Agency. "**Desk Reference To The Toolkit For Assessing Potential Allegations Of Environmental Injustice**" (2006). <Http://Www.Epa.Gov/Compliance/Resources/Policies/Ej/Ej-Toolkit-Desk-Ref.Pdf>.

EPA:Officeofenvironmentaljustice. "**The Environmental Justice Strategic Enforcement Assessment Tool** (EJSEAT)". 2009. Summary Page Of The EJSEAT. USEPA. December 21 2009. <Http://Www.Epa.Gov/Compliance/Resources/Policies/Ej/Ej-Seat.Html>.

SSBX. "**Sustainable South Bronx**". 2009. Www.Ssbx.Org. 2009.

The Boston Foundation. The Boston Indicators Project: **Measuring What We Value - A Project Of Boston's Civic Community**. Boston 2009.