

# Implications

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## Justice in the Context of Environmental Sustainability

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Mainstream environmental designers, academic institutions, politicians, and non-governmental and governmental organizations have embraced the concept of environmental sustainability. Confusion may abound over a precise definition of the term as various organizations and interests adopt it for their own use, but as Scott Campbell (1996) declared over 10 years ago in an article in the *Journal of the American Planning Association*, “In the battle of big public ideas, sustainability has won: the task of the coming years is simply to work out the details and to narrow the gap between its theory and practice” (p.310).

One of the details still being worked out is the specific relationship of environmental sustainability to social justice. It is well recognized that social inequities are often compounded by unsustainable systems. These systems adversely impact marginalized communities through pollution, resource consumption, and environmental exploitation. A specific example comes from extensive warehouse development that has occurred in recent

years around the airport in Ontario, California, a city located 30 miles east of downtown Los Angeles. The aerial photograph (next page) illustrates part of the area that has been designated as an important transit hub for the shipping of goods from Southern California to the rest of the United States.

The Center for Community Action and Environmental Justice, located in nearby Glen Avon, has been documenting this landscape change and its impact on the small community of Mira Loma, a working-class, largely Latino community adjacent to the development. The Center cites Air Quality Management District and World Health Organization (WHO) reports in claiming that the air in Mira Loma has the highest levels of particulate matter in the nation, and 4th highest in the world. Much of this particulate matter is from diesel exhaust associated with the new warehousing industry. Mira Loma residents are obviously concerned about the impact of this development on their community and their families' health. This land use example illustrates that unsustainable development patterns continue to adversely affect lower-income, minority communities.



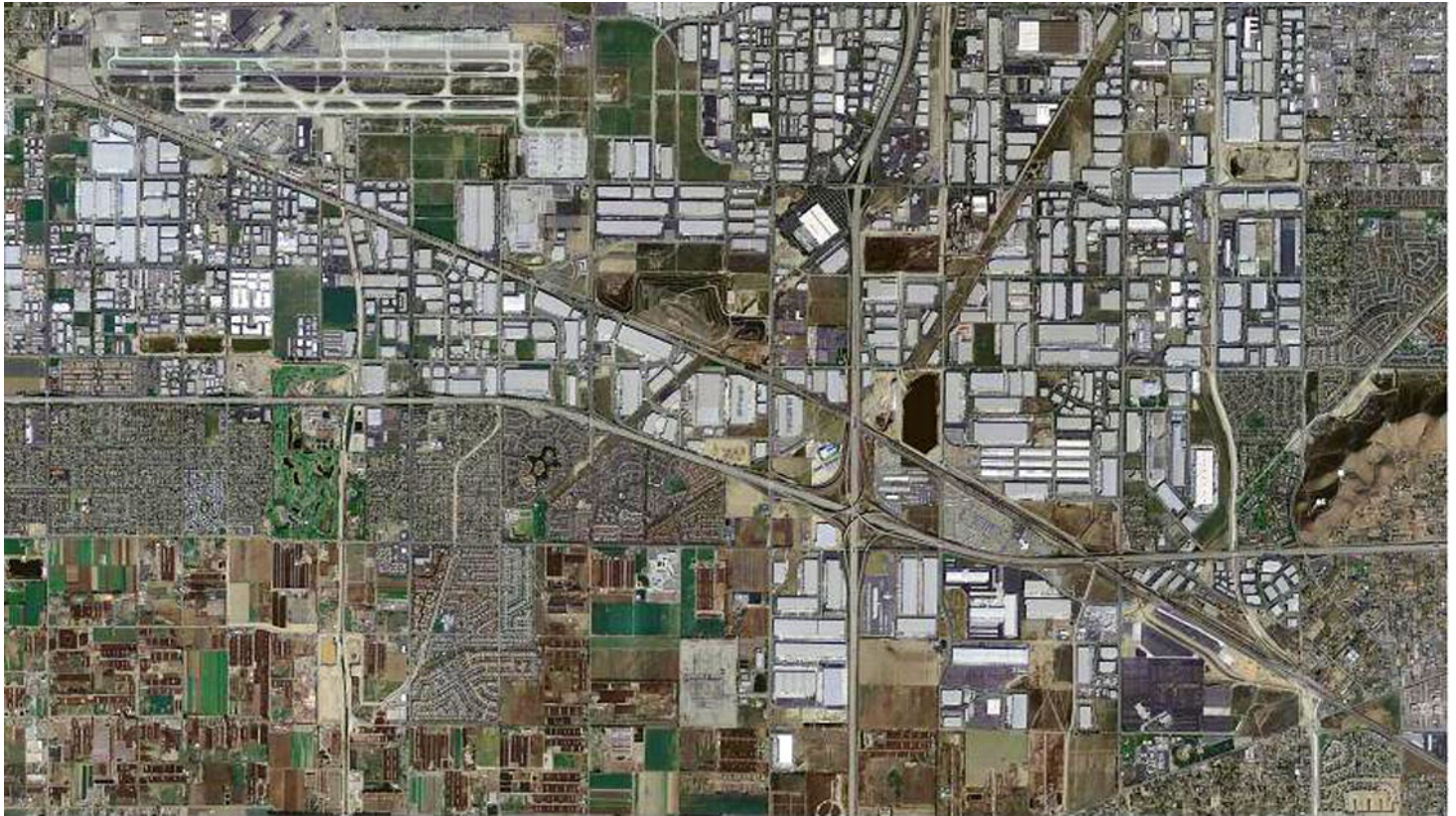
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Recent warehouse development near the Ontario, CA airport (upper left) and the community of Mira Loma (lower right).

Environmentally sustainable strategies seek to eliminate pollution and other by-products that adversely affect communities. As such, sustainability is viewed by many as an approach that advances the cause of social justice, and it is often touted as an important long-term objective. However, in most instances where sustainable strategies are implemented to improve the impacts of unsustainable systems, the underlying social conditions that contributed to inequity and injustice persist.

The result is that while sustainability may alleviate some of the negative impacts on marginalized communities, the majority of benefits continue to serve primarily those in control of existing social structures. Continued inequities within society may serve to undermine the long-term viability of sustainable

solutions, as other social concerns overwhelm the community, unless conscious efforts are made by designers to challenge these social conditions and explore the potential of sustainability as a strategy for empowering marginalized communities.

### Challenging Existing Social Conditions

What are the forces in society that are shaping environmental injustices? The specific answer to this question will vary from situation to situation; however, scholars argue that historical power structures in society, often characterized by economic, cultural, race, and gender differences are at the foundation of most social and environmental injustices. Unless such structures are challenged, solutions to environmental problems faced by marginalized communities may temporarily soothe the symptoms of injustice within

the community, but fail to address the underlying cause of the problem. Inevitably, the injustice will manifest itself again at some point in the future.

If designers are truly interested in integrating the cause of justice into the sustainability agenda, they must fundamentally question the role of their professions within society. The dominant role of environmental designers in this country has historically been aimed at maintaining existing social structures that distribute power unequally throughout society, more often than not by remaining silent on issues of justice in the context of their work. However, if such injustices are ultimately antithetical to the cause of sustainability, designers must consider an alternative role that aims at transforming existing social structures to redistribute power within society.

## The Designer's Role

So how do designers interested in this societal transformation of power relations develop a sophisticated understanding of these dynamics? Such understanding arises from a critical awareness of social phenomena that shapes the particular situation, or what Brazilian educator Paulo Freire (1970) called **critical social consciousness**. In their work, Freire and fellow educator Ira Shor (1992) outlined stages of critical social consciousness whereby students increasingly see themselves as embedded in a historic social context defined by relationships of power, oppression, and privilege.

Early stages of this process, known as **intransitive thought**, are characterized as fatalistic, where action is seen as fruitless given the current state of affairs and the existing power structures within society. Given the above land use example, environmental designers at this stage might resign themselves to the fact that decisions have been made about the Ontario

development, and conclude if they don't do the work requested by the client, someone else will do it and the result will be the same.

Middle stages of this process, known as **semi-transitive thought**, embrace the possibility of change, but fail to view society as an interdependent system. Injustices are viewed simplistically as discrete acts disassociated from larger social structures. Thus, in our Ontario land use example, an environmental designer may recognize that the proposed project adversely impacts the local community and take steps to mitigate the impacts, perhaps by advocating the use of bio-diesel to reduce pollution concerns, or on-site stormwater treatment for protecting local water quality. However, the proposed activities are viewed as unique, as opposed to being a part of larger economic processes shaping land use within the region that may perpetuate injustices.

An advanced stage of this educational process, known as **transitive thought** or **critical social consciousness**, describes persons who can make broad connections between specific social problems and the larger social context. Critical social consciousness is an enlightened awareness of tangible social structures that affect the community. They include resource allocations, planning, and decision-making policies, as well as less tangible structures such as values and beliefs that influence perceptions as to what is possible, appropriate, and desirable.

In our land use example, the designer recognizes that the proposed expansion of the trucking facility is a local manifestation of national trade policies that promote the import of large volumes of products from Asia, regional transportation and land use policies aimed at alleviating congestion near the ports, and strategically locating transport facilities

at convenient, affordable, and available sites to maximize cost efficiency. While specific design responses to the problem may be similar to those in the middle stage of this educational process, the critically conscious designer may also play a role in actively resisting the proposed project and facilitating connections between the local community and other organizations concerned about the trade and regional land use decisions.

You can imagine that critical social consciousness can pose quite a dilemma to the designer. It is often not in the short-term economic interests of designers to be critically conscious, as it may cause them to challenge the project that is supporting them as professionals.

Semi-transitive thought is often the most that can be hoped for in the context of mainstream professional consulting. However, there are a myriad of situations where environmental designers can become involved in grassroots community efforts to create sustainable communities, working in advocacy roles facilitating community empowerment. While historically critical social consciousness represents a small segment of the environmental design professions, its growth potential is substantial as community-based initiatives continue to expand.

### **Empowering Approaches to Sustainability.**

At the John T. Lyle Center for Regenerative Studies at Cal Poly Pomona University, we stress that communities, regardless of size, should be concerned about the design of fundamental systems that support human existence: energy, food, water, shelter, and waste. These systems should be designed in a way that resources continually renew or regenerate themselves, thus ensuring a sustainable future. Such systems often draw upon natural processes as models

for regeneration. However, equally important to the technological challenge of designing these support systems is the challenge of integrating these systems with the social structures, cultural expectations, and capacity of the community. No matter how regenerative a system may be in its design, it will not persist if it does not meet the community's lifestyle expectations, or if the community lacks the capacity or interest to maintain the system as intended.

The need to effectively integrate social systems into the solution, suggests an approach grounded in the needs, desires, and abilities of the community. Participatory learning and action (PLA) is one such approach. PLA is closely related to Freire's critical social consciousness. Using PLA, environmental designers serve as facilitators and work collaboratively with community members to investigate issues of power with a focus on transforming society and improving the lives of participants. PLA, often referred to as participatory rural appraisal when applied to rural issues, is used widely in international development. It is defined as a family of methods that enable people to share, enhance, and analyze their knowledge of life and conditions affecting their community, to plan in response to that knowledge, and to act to improve the situation. The three main components of PLA are: investigation of an issue or problem, self and collective reflection, and joint decision making focused on collective action that directly benefits the people involved.

PLA builds bridges between professional skills and community knowledge by using creative and participatory research tools. Environmental designers and community members become activists using lived experience to guide their investigation. Since analysis is based in everyday experience, changes are also directly connected to improving quality of

life in the community. Participants and investigators work collaboratively to define who is involved in the research, how questions and issues are formulated, and how findings will be used.

The collaborative quality of this method requires traditional roles of design expert and community member to be broken down. Throughout the process, it is the professional's role to be a supportive facilitator raising questions and fostering connections between lived experience and desired changes. This approach promotes community ownership of the planning and design process and fosters a sense of empowerment among locals.

Faculty, staff, and students at the Lyle Center have been exploring the potential for PLA approaches to empower sustainability in a number of different communities in recent years. Specifically, PLA techniques for visual analysis, interviewing, and group and team dynamics have been studied.

## Lyle Center Projects

In a community-based project in El Monte, California, students conducted walks with community members through their neighborhood and asked participants to photograph issues that adversely affect their quality of life. Discussion followed about important commonalities and differences in the way in which residents viewed the issues in their community. Dialogue was initiated about how the participants could act to improve situations, some of which were minor nuisances such as abandoned shopping carts, and others which were much more significant concerns, such as gang activity or unhealthy neighborhood conditions.

In Tijuana, Mexico, faculty, staff, and students have been working with a number of Colonias on the outskirts of the city in an effort to address a wide



Photos taken by community members in El Monte, CA, highlighting issues in their neighborhood. Common themes were identified and discussed by the group to reveal how participants could act to improve the situation.

range of issues within the community. PLA activities, including community mapping exercises and analyses of social networks have been useful in 1) delineating issues of concern among the residents, 2) assessing the social capital and the residents' capacity to effect change within the community, and 3) to generate community-based dialogue about realistic strategies to address problems. One example of dialogue concerned issues of theft related to drug abuse within the community. Initial brainstorming focused on expensive solutions, such as guards or gates to protect the community. However, participants quickly shifted towards grass-roots strategies that improved neighborhood communication about criminal activity and shared surveillance as more feasible strategies for combating these problems.

Working on greenhouse gas reduction at Cal Poly Pomona University, Lyle Center students have been conducting group interviews with specific student

populations and transect walks through facilities with maintenance personnel, in an effort to understand the potential for reducing emissions associated with commuting students and energy consumption in university facilities. This approach recognizes that if the campus's impact on the climate is to be neutralized, it will require grass-roots support and action from all constituencies on campus, not just policies handed down by the administration. Engaging students and staff in a dialogue about energy behavior on campus illuminates the challenges that the campus climate commitment faces. In addition, it provides opportunities for participants to be part of the solution, discussing possible approaches to reduce their portion of the footprint.

At first glance, the issues discussed may appear to have little connection to environmental sustainability. However, if the primary concerns and interests of the community are not met, the success of

resolving challenges to environmental resources and community systems will be substantially diminished. While change in such communities is slow, in each case the process has furthered the dialogue about action within the community, allowed the participants to make connections to their broader social context, and moved each closer to embracing a sustainable future grounded in social justice.

## References

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## Resources

- Chambers, R. (1997). *Whose reality counts? Putting the first last*. London: Intermediate Technology Publications. Information related to PLA and participatory appraisal methods.
- Participatory Learning and Action* published by the International Institute for Environment and Development at [http://www.iied.org/NR/agbioliv/pla\\_notes/index.html](http://www.iied.org/NR/agbioliv/pla_notes/index.html)
- The Resource Centres for Participatory Learning and Action Network (<http://www.rcpla.org/>) is an alliance of 17



Map prepared by women from the community in Tijuana, Mexico, delineating community concerns and resources. Discussions revealed significant concerns with criminal activity, but also allowed the group to brainstorm about feasible solutions to the problem.

different organizations from around the world that strives to promote the empowerment of the disadvantaged through participation in their own development. The Network helps researchers and practitioners share information and experience, and they offer a number of worthwhile publications.

—United Nations Universal Declaration of Human Rights (<http://www.un.org/Overview/rights.html>). This international agreement outlines standards of living for all humans serving as a baseline for just environments.

## About the Author:

Kyle D. Brown is Director of the John T. Lyle Center for Regenerative Studies and Associate Professor of Landscape Architecture at California State Polytechnic University, Pomona. The focus of his recent research has been on professional responses to social justice in the context of environmental sustainability, and strategies for integrating social consciousness into the design process. He holds a Bachelor of Landscape Architecture degree from the University of Minnesota, and a MLA and Ph.D. in Regional Planning from the University of Massachusetts.



## Related Research Summaries

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—*American Journal of Community Psychology*

“Public Participation in Landscape Development”  
—*Landscape and Urban Planning*

“The Adoption of Sustainable Development Policies and Techniques in US Cities”  
—*Journal of Planning Education and Research*

“Involving the Public in the Design Process”  
—*Design Issues*

“Improving the Lives of Street Children”  
—*Children, Youth and Environments*

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