

Black and White, and Green

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We sometimes say it is so much easier to study plants than people. Plants stand still and don't argue but people keep moving and have opinions, strong ones. But the separation of the natural habitat world and the human condition is a false dichotomy; each affects the other. Racism in our political world also is expressed in reduced levels of environmental health. In a time when the cruel history of racial attitudes and actions have risen towards the top of our public dialogue, we must ask, can restoration ecology play a role in lessening systemic racism and its cruel outcomes, including to a community's environmental resources?

Restoration ecology projects always start with a review of a landscape's history. We study the site's past habitats and their species richness, soil qualities, and land-use legacies. Most often our work ignores the social history of the land that has led to the degraded ecological structures that we try to remediate. Incorporating social ecology into our science is increasing in importance, but many restoration ecologists have filled their training with biological principles and are quite separate from the "silo" of socio-economic interpretations of our landscapes. Social inequities and subsequent landscape effects are not natural processes. They are the product of many specific decisions to segregate people and to prolong the inequalities that favor one group's lifestyle and suppress another's.

From a traditional ecology perspective this means fewer green spaces, less tree canopy, and lower ecological services for disadvantaged people. Often one can walk through a neighborhood and identify the economic and racial attributes of the population simply from the lack of ecological structure and the landscape's style. In fact, the landscape can be a gnomon of the social predicament of the neighborhood (Hood and Tada, 2020).

There are now many studies on the correlates of racism and environmental degradation (air and water quality, heat island stresses, pollutants). This results in the poor health of people who are the target of prejudice causing specific land-use policies and resource allocation actions (e.g., Schell et al. 2020). Recent studies have shown that substandard air quality and its effect on lung function

may cause higher death rates from coronavirus, this year's plague. "History! Read it and weep!" the novelist Kurt Vonnegut wrote in *Cat's Cradle*, and that sadness is writ large in too many urban centers. Environmental justice movements have been framed to confront these linked social and ecological problems.

For example, in the New York metropolitan area there is a grim correlation between economic status and the ecological health of parks. Some large parks, such as Central Park and Prospect Park, are surrounded by wealthy communities which give millions each year for park maintenance, programming, and improvement. The parks are their backyards, and those folks are happy and able to contribute. Many other parks are surrounded by economically modest areas and are denied this perk, donations to public parks being lower on the list for discretionary spending, when it exists. Additionally, ballot initiatives to increase green space and conservation are most successful in communities with high levels of education and economic opportunity (e.g., León-Moreta, 2019). This too increases the distance that disadvantaged communities must cover to reach environmental parity. Ecologically, the rich get richer and ecological actions get advanced in the green spaces that need them the least. Of course, the donations to the well-to-do parks are positive ecological actions and we all support them. But the social outcome is that the divide between wealthy and disadvantaged areas grows wider, ecological progress and public health in the wealthier areas pulling further ahead. The current mayor of the City of New York has prioritized building new parks and programming in the disadvantaged areas, but his office has much catching up to do. Godspeed!

The lower level of green space in minority areas directly affects the landscape functions that ecological restoration champions. The fewer green spaces, often distant from each other, disrupt population and community processes. Consequently, metapopulation dynamics for ecological resilience is another casualty of social prejudice. The physical structure and derelict infrastructure in deprived areas produce a negative feedback on ecological health and sustainability. Also, the lack of well-maintained green spaces in neighborhoods framed by prejudice depresses the ecological services in these areas. Restoration ecology projects that add biodiversity, canopy cover, food web complexity, and stewardship can advance a response to systemic racism and its outcomes, at least by making local communities and

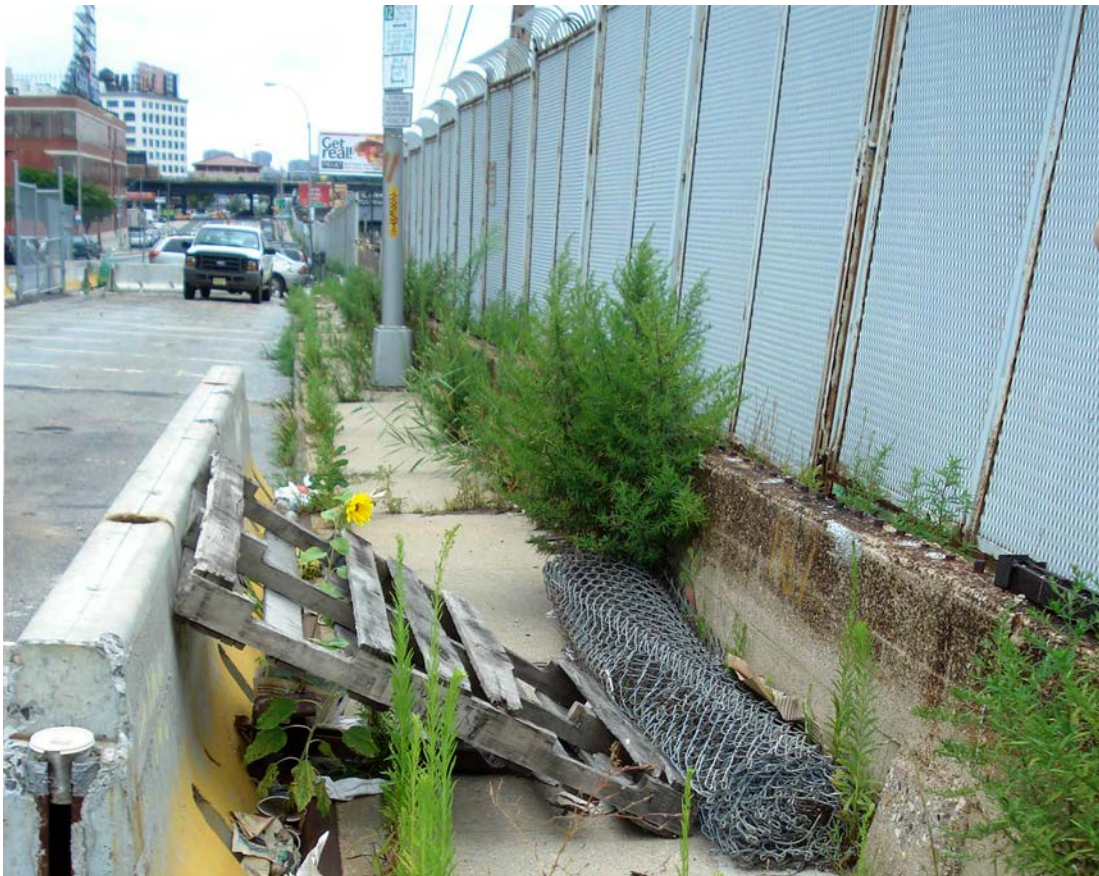
streetscapes healthier, then more appealing as residential and commercial venues.

We see our work as greening the world, but we need a broader definition of the motivations and positive outcomes of our field. Can we also provide the remedy of a green profession that helps overcome the old, cruel black and white social patterns that surround us? Can our work give us a landscape of restored ecological value to replace a landscape formed by sin?

Recommended Readings

- Grove, J.M., D.H. Locke and J.P.M. O’Neil-Dunne. 2014. An ecology of prestige in New York City: Examining the relationships among population density, socio-economic status, group identity, and residential canopy cover. *Environmental Management* 54:402–419.
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Inner city streets often lack ecology structure or services (photo credit: S.N. Handel).