<u>Final Paper</u>

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When we develop the earth, as John Lyle observes, " we radically alter a system of forms and relationships that are a current manifestation of some 4.6 billion years of evolution" (19)--no small endeavor indeed. While the development of the city, in particular, is often assumed to connote *economic* development, the physical reality of these nexuses of resource consumption is that they fundamentally change the ecology of place. The creation and operation of cities has "the greatest destructive impact on nature of any human activity" (Register 15), most notably in countries of the Global North, where disproportionate resource use and waste is not only the operational norm, but a mode of increasing social status within a culture deeply entrenched in conspicuous consumerism. Before the city can be taken on as a unit of study and change, the very *need* to alter current patterns of urban development must be established; a need that is consistently undermined by the ideology and inherent hierarchy embedded in the very concept of *development* itself.   A definition of development that radically careens off its former path as South-focused, dualistic, and disingenuously neo-colonial and instead encompasses the Global North into a worldview that works for environmental and social equality irrespective of geographic location, is absolutely critical to reconceptualizing sustainable urban form. The city is a tangible, relevant forum in which to bring "the North back in" (Afshar 528). New visions of the Northern city—the *ecocity* and the principles of *ecological design*--attest to the potential for a revised definition of *development* that speaks to the integration of nature and culture and the power of those who hold economic wealth to dictate the terms of development on a global scale.

One of the fundamental barriers to encouraging the reflexivity of the Northern city is the construct of *development* itself; the North as the "self-designated First World" (Sbert 195) or developed (past tense, over and done with) and the South as develop*ing* or *under*developed. It is here in the linguistic creation of inferiority and superiority that the stream of self-perception becomes murky.   In the aftermath of Truman's infamous appropriation of the terms of development in 1949, people living in so-called developing countries "ceased being what they were, in all of their diversity, and were transmogrified into an inverted mirror of others' reality: a mirror that belittles them and sends them off to the end of queue" (Esteva 7). Conversely, those in the so-called developed world could proudly display their iconic feats of social and physical prowess, touting industrialization and Western conceptualizations of modernity as models of "real" civilization, intelligence, and general goodness. Modernity, defined in extremely narrow terms by the Global North, included fossil fuel technology, massive excavation and deterioration of the Earth's surface, intensified waste creation, increased mobility across the globe and thus increased toxic and climate-changing emissions released into the atmosphere, and perhaps most frightening: the underlying philosophy--perpetuated in the rhetoric of development—that this lifestyle should be a model for the world over, leaving no culture out of the realm of these very specific set of values. The identity of the *underdeveloped*, "which is really that of a heterogeneous and diverse majority" (7) became defined "simply in the terms of a homogenizing and narrow minority" (7). Furthermore, when the environmental costs of a world dominated by Northern values are

scrutinized, we find that we would need five planets to sustain an entire globe that had

the characteristics of the Global North (Rees, 6/27); a fact that so glaringly negates the

development project, one must highly doubt the intention and sanity of a development

definition fashioned on a Truman-esque model.

In reality, development is a "globally interdependent phenomenon" (Afshar 530)

with actions in one locale affecting the well-being of people in locales across the entire

globe.   And going further, "against certain dimensions a country in the South may be

more developed than a country in the North" (530), illuminating the chameleon-like

nature of the term; development takes on the characteristics and values of those creating

the parameters of its meaning.   To be "developed" then does not signify an objective

achievement that is inherently imbued with social and ecological integrity or equality but

rather the adherence to a specific set of cultural values that in our particular time and

space has the political and economic power to deem itself superior to all other cultural

configurations. In this case, the Global North and the high priority it has tacked onto

economic indicators like the GNP and a religious-like devotion to science and

technology, "development" connotes only a small part of the human experience, which

ultimately cannot sustain a planet of people struggling to maintain a healthy balance with

their ecological surroundings.

When the term development is used to connote a healthy relationship between the

natural world and its human inhabitants, the North can most accurately be deemed

*under*developed or *mal*developed. It is here, in the reconceptualization of development

that the evolution of the human-nature relationship can be coaxed along. By "centering"

the North and South, an equilibrious dialogue is able to emerge that is not bound by a

worldview that implies a giver/knower and a receiver/learner. It is with a revised

ideological platform—one that allows the Global North to be a learner/receiver (as it

surely has more to learn)—that the need for a changed physical landscape can best be

understood and steps taken to ameliorate the damage that has been done.

The physical development of the North has followed a trajectory that is rooted in

the notion of an *empty planet*—a planet that can and will indefinitely provide resources

for the purposes of human inhabitants. Yet as the false promise of the infinitely abundant

earth becomes impossible to ignore, the development of the typical Northern city—the

loci of destructive, linear urban metabolisms—becomes increasingly significant.

A city "is the point of maximum concentration for the power and culture of a

community" (Mumford 16) and their increasingly efficient throughput, or linear pathway

of inputs and outputs, of non-renewable and non-reusable materials in the Global North,

conjoined with increasing population, make them a particularly interesting point of

departure in untangling the global ecological crisis. Statistics that point to the sheer

volume of materials and energy needed for the construction of buildings alone in North

America (half of all energy and material in the United States is devoted to building

construction, with another 1/3 being committed to city planning and infrastructure), attest

to the ecological significance of how humans create shelter and consume physical space

(Motloch 6/27).   Vernon Masayesva, Chairman of the Hopi Tribe, summarizes the

strategic position of the built environment: "Building should respond to the needs of

mankind, and the need of mankind today is to be stewards" (Register 68).   And,

accordingly, the built environment must then design environmental stewardship into its

very essence. With an ideological platform in place that "centers" the North and South,

design in the North can much more effectively position itself as a leader on the environmental stage.

Design, both in terms of small scale, individual structures and large scale, city-wide infrastructure, holds an incredibly strategic position for the future of a healthy planet. Low-impact design that is self-conscious of its powerful ability to either enhance or destroy the surrounding physical landscape has an incredible potential to uphold sustainable principles, perhaps without ever having to engage in political warfare or campaigns that ignite stagnating dualities (us vs. them, bikes vs. Hummers, etc…). With conscientious design, living within our ecological means becomes as second nature as *not* living within our means; sustainability need not loom as the more difficult or expensive choice for an individual living within an unsustainable infrastructure, but becomes habit and eventually a lifestyle. For example, a city with reliable public transportation, safe and abundant bike lanes, and "access by proximity" (37) fundamentally has had environmentally degradative practices "designed out", supplanting them with an infrastructure that is in line with ecological principles and values. The potential for design to be used as a tool to circumvent the Sisyphean task of injecting "green" culture here and there, but never actually touching the root of the problem, is tremendous.

Ecologically-sound values can literally be embedded within urban form, reducing energy and materials consumption if the most voracious consumers, Northerners, begin to "acknowledge that the environmental crisis is also a crisis of design" (van der Ryn 10). On the micro-level, smart design can look like choosing appropriate building materials that integrate the user with the climate and landscape (a la Sverre Fehn) and on the macro-level, it can be reflected in a city criss-crossed with bike, pedestrian, and bus ways

(Curitiba, Brazil). Ultimately, there is no all-encompassing blueprint for sustainable

design or a clearly distinguishable finish line; and in my humble opinion, here lies the

beauty. Design becomes a creative and site-specific art--sensitive and adaptive, tailored

to micro-climates and particular ecosystems, flexible and a bit unpredictable—much like

the human experience. With several guiding principles as a central, unifying point of

departure, such as a process for ecological accounting and a general foundation of eco-

literacy, there is no end to the diversity of design strategies that are emerging and will

continue to evolve.   Fortunately, movements that emphasize ecologically sound

principles have surfaced amidst mainstream, degenerative trends in the Global North,

including, and certainly not limited to, the *ecocity* and *ecological design*.

The *ecocity* is a way of conceptualizing urban form put forth several years ago by

urban designer Richard Register. His simple and poignant, "as we build so shall we live"

(19), is the overarching mantra that guides his vision of the integrated city. The *ecocity*

is fundamentally aligned with ecological principles and includes: land use patterns that

support the healthy anatomy of the city, planning for pedestrians and bicyclists, building

soils, enhancing biodiversity, as well as principles borrowed from the tenets of

Mollison's permaculture and Downton's "ecolopolis design" (174).   Register sees the

ecocity as a radical departure from the historical, automobile-dependent template for the

Northern city and an opportunity to rebuild from the ground up, rather than merely a

patchwork of symptomatic solutions to a systemic problem. Fundamentally, the *ecocity*

is not obsessed with economic growth to the exclusion of all else. It acknowledges the

human and environmental costs of myopic city planning and seeks long term solutions,

rather than get-rich-quick tactics. And, is it so outrageous to work towards city

development that responds to the human scale? Perhaps what previous generations considered "conquering" or "outwitting" nature's limits through grandiose and isolating cityscapes has overwhelmed the human psyche just as it has overwhelmed the planet's ecological limits.

Cities that fail to reflect the *incontrovertible* interdependence of humans and nature are ultimately false representations of reality and deceptive teachers, leading humans to believe that in fact they can eat, drink, and breathe without the aid of the land just outside the concrete city boundaries. Natural processes are disguised, any cost that is not economic is hidden, and the misconception that energy is abundant and cheap (it must be if my office building relentlessly heats and cools itself year-round!) in a city that is disconnected from the realities of an ailing environment. Poor design has proliferated the misconception of the *empty planet*, reflecting values that are of a by-gone era—one in which the natural world could still replenish what was degraded by human activity. It is through design that acknowledges our current imbalance, on both the small and large scale, that equilibrium can even begin to be achieved. Register's *ecocity* model begins to unpack what that equilibrium might in fact entail on the large scale.

Similar to the *ecocity*, the principles of *ecological design* speak to a fundamental redevelopment of the built environment. Like the *ecocity*, its application is not limited to a particular region; however, it is not confined to the city or macro level, but can be applied to varying scales. Based on five principles—solutions grow from place; design with nature; ecological accounting informs design; make nature visible; and everyone is a designer—*ecological design* provides a viable alternative to a traditional design that has worked "cleverly in the service of narrowly defined human interest" (van der Ryn 9),

rather than within the broader context of nature's reality. Unlike what van der Ryn and

Cowan deem "dumb design, or design that fails to consider the health of human

communities or of ecosystems" (10), the principles they put forth seek to meld design

with place, build with ecological health as a primary decision-making tool, and create a

dialogue between the forms of the natural world and those constructed by humans.

Environmental educator David W. Orr describes *ecological design* as requiring "not just

a set of generic design skills but rather the collective intelligence of a community of

people applied to particular problems in a particular place over a long period of time" (9).

The homogeneity that is implicit in the traditional development project simply is not

given any space to grow and proliferate within *ecological design*. In fact, its very

definition, built on site-specific eco-literacy and the respect of local knowledge, negates

any attempt at a unified, global model of design—a model that has led to social and

environmental deterioration.

A dualistic, neo-colonial, homogenizing design scheme is *not working*—and the

good news is: there are alternatives. The *ecocity* and *ecological design* represent a

fraction of the creative solutions that are taking stabs at the status quo. Rapid and

effective change—the kind of change the planet needs right now as the spectre of

environmental crisis looms large—is possible with the stepping down of the so-called

First World as a bastion of human organization. The Global North has proliferated a

design precedent that has created automobile dependence, energy inefficiency, pollution,

and has sheltered a culture of consumption. The onus is clearly on the North to downsize,

from its current ecological footprint of 8 hectares per person to the global average of 1.8

hectares per person (Rees, 6/27), and not for the rest of the world to mirror our excessive

footprint. The South as burdened-with-the-task-to-develop paradigm is misleading and

outdated. A revised and more compassionately constructed portfolio of strategies and

values that seek to harmonize nature and culture will most significantly impact the entire

globe if applied to Northern conglomerations of people and resources and not, as

traditionally envisioned by mainstream development oganizations, if the focus is solely

directed at "developing" countries and their 1.8 hectares/per person eco-footprints.

Dismantling the myth of development and revising the Northern city through smart

design are parallel tracks leading in the same direction: towards a collective imagination

that builds the reality of the human-nature interdependence into the very contour of the

physical landscape.

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