

## Material Revolution

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*Re(dis)covered paradigms  
for a transformational relationship between architecture, education and culture.*

“... without a system of formal constraints there are no creative acts”

– Noam Chomsky

“The poet, in the novelty of his images, is always the origin of language.”

– Gaston Bachelard

“Between stimulus and response, there is a space.  
In that space is our power to choose . . . our growth and our freedom.”

– Stephen Covey

As our nation stands at the brink of war, at home, and in places that may (or may not) be far away, many of us are rightfully confused about who we are as a people, as a country and as a culture, and how we came to be here, tangled up between prosperity, fear, freedom and violent conflict.

We are told by scientists that environmental crisis and disaster is imminent.

As children wander schools and cities with military firepower, we continue to fight for our right to carry guns.

With the most advanced fitness and medical resources and the world's greatest diversity and availability of nutritious foods, epidemics of obesity and other eating disorders haunt<sup>1</sup> more than half of our population, as we spend increasing hours driving our cars, watching television and depending on highly processed ‘fast foods’ in our diet.

We are told by politicians, corporations and activists simultaneously, that ‘globalism’ will: create economic growth and equality across the world, destroy the complex fabric of ancient rooted cultures and the meaning of place, enslave millions to

predatory capitalist values, and bring the undisputed benefits of our ‘democracy’ and technical development to needy people everywhere.

Meanwhile, we are told by our own society in words, but more often through silent resignation, complacency and ignorance, that architecture doesn't matter, is not essential and has nothing meaningful to say in any of these pressing issues.

Instead, practitioners of architecture often find themselves relegated to interpreting increasingly complex bureaucratic codes and bylaws, struggling to squeeze in one more accessible bathroom, or called to produce novelty on demand which will allow a condominium developer to sell more units, a corporation to increase its social status, or ourselves to publish our work in an field that increasingly values graphic images over built realities.

In spite of all this we persist, and here we are, making and teaching architecture, propelled by a malnourished faith that what we do is important, that somehow our culture needs us, and that the struggle is worth pursuing. But in order to continue this uphill battle with energy and courage, it is time to ask again; what is culture; do we believe that it's important to us here, to architecture, to humanity and anything beyond; and do the universities and programs in which we learn and teach prepare students for these questions – to take an active and empowered position in the dialogue between architecture, education and culture?

Martin Heidegger in *Being and Time* is often quoted as saying that “a science's level of development is determined by the extent to which it is *capable* of a crisis in its basic concepts.”<sup>2</sup> So with a potential crisis in mind, I would like to begin by reconstructing a definition of *culture* that will help us answer the question of its importance. To do this we must question and employ the power of language as a vehicle for communication, and framework for thought.<sup>3</sup> Once a relationship between culture and language is established, I want to examine three primordial and radical paradigms that operate in this arena: the

scribe, the poet and the leader, mining them, and the relationships between them, for genetic material that can help us as builders, teachers and students, to move beyond paralyzing confusion and doubt, into a realm of freedom and growth: a realm where architecture *can* and *will* transform culture.

In constructing any definition, we immediately confront the limits of words and language, a problem that will doggedly pursue us through our search, and remind us that, even though, as the poet Rainer Maria Rilke says, “Things aren’t so tangible and sayable as people would have us believe; [and that] most experiences happen in a space that no word has ever entered . . .”<sup>4</sup> we somehow move forward in the belief that the power of language can transcend its own limits. In one of the most memorable testaments to this power, the story of Helen Keller, we hear the young Helen expressing the very roots of this dialectic ambiguity to her teacher Anne Sullivan:

“at another time [Helen] asked, ‘What is a soul?’ ‘No one knows’ [Anne] replied, ‘but we know it is not the body, . . . it is that part of us which thinks and loves and hopes’ . . . [and] is invisible . . .  
 ‘But if I write what my soul thinks,’ [Helen] said,  
 ‘then it will be visible, and the words will be its *body*.’”<sup>5</sup>

Noam Chomsky in his essay “Language and Freedom” quotes Jean Jacques Rousseau as stating that “general ideas can come into the mind *only* with the aid of words . . .”<sup>6</sup> So, with the power of words and language on our side, we can return with optimism and an open mind to the word *culture*, which according to Webster comes from the Latin *cultura*, “to till”, or “to cultivate”, and thus begins with the concept of ‘planting’, ‘nurturing’ and ‘growth’. This definition then expands beyond *agriculture* to include “development through education, discipline and training”, and lastly, “the characteristics of a [particular] stage of development of a civilization”.<sup>7</sup> But our language is constantly evolving, as Wittgenstein describes in his commentary on the appropriateness of words, “. . . that the first judgment is not the end of the matter, for it is the *field of force* of a word that is decisive.”<sup>8</sup> Accepting this, we can never fully rely on dictionary definitions, as important as they might be in general. In common usage today, culture has come to describe the “connective tissue” around a particular group of people, what they have in common, specifically the values and principles they share. Thus, with some assembly of ‘tilling’, ‘training’, ‘discipline’, ‘sharing’, ‘connective tissue’ and ‘common values’, we can attempt a new synthetic “working” definition:

I propose that for our purposes, culture be redefined as: *the active growing of shared values and principles* – a dynamic state that, by its very nature, needs *attention* and *nourishment* in order to exist.

But this assemblage contains an important paradox: To the extent that we see culture as a growing, mutable, dynamic thing, values and principles are still understood as fundamentally *limiting*, inherently imposing ‘focus’, ‘order’ and ‘structure’. Seen from this vantage, culture begins to resemble its own kind of *language*, in the way that it also provides a “grammatical” framework for thought. In the case of culture, this framework extends its grammatical structure to desires and values, and thus, motivation. In “Language and Freedom”, Noam Chomsky states that: “To learn a language is to construct for oneself [an] abstract system [of generative grammar, even if] unconsciously.” But reminds us that as the ‘constructors’ we must “. . . try to determine the intrinsic human characteristics that provide the framework for intellectual development, the growth of moral consciousness, and participation in a free community”<sup>9</sup>, thus linking the particularity of language structure to the health of society.

This poses a challenge: If culture is constantly *growing*, while at the same time *establishing* order and structure, we may conclude that culture needs *an architecture* in order to become what it is, to secure in the *spatial* and *material* dimension, the propositions, aspirations and results of our intentions.

For curious reasons architecture today, rather than embracing this vast opportunity for material intervention in culture, often shies away from the possibility of leadership, retreating instead to esoteric poetry, aesthetic ‘innovation’ or technical expertise with a downward glance. Meanwhile these same architects and students watch with a mix of curiosity, helplessness and horror as ‘other’ media take the cultural stage, perpetuating complacency, dependency and ignorance through their many seductive distractions. In this theater architecture seems to be no competition for the ‘immediate’, which easily displaces the need for depth with its sheer speed, quantity and brilliance. After all, within minutes of seeing an advertisement we can be at the drive-through picking up the burger; we can watch the movie, plug in the machine, buy the gun, order the pill, and ‘get’ the body we’ve always wanted. Distracted obsession is inevitable, depth and vulnerability unnecessary.

Architecture, in contrast to many of these other media, takes time, investment and an incredible faith in its relevance. When this faith is gone, architecture becomes mere building without voice or depth, and thus a dead language. Yet when we believe that something truly needs to change in the direction of our society, we also begin to see culture, with its ability to channel desire, as the only vehicle with the capacity for such a heavy load. Architecture, then, becomes a way to both critique culture, and at the same time contribute to its mission by building solutions.

The gap between where we are as a society, and where we want to be, raises many (hopefully energizing) questions. But to the extent that a gap does exist, designers and teachers must always

ask how it might be addressed and how to prepare ourselves, and our students, for a revolution that emerges out of love, and not insecurity or anger; not an aggressive reinstatement of Architecture as ‘the mother of the arts’, but rather a tapping of the resources of architecture and our faith in it. Can we believe that architecture can lead (i.e. influence) culture through the integrity of its process and materiality, its investment in the character of its own structure, the fertility of “inhabitation” or programmatic interpretation, and the insightful guidance of cities; and if so can it engender awareness, sensitivity, courage, openness, and ultimately a better place, and way, to live.

If this end can be imagined, how might we move towards it in our teaching and our work? At what patterns might we look to help direct our energies, and gauge our effectiveness? If these questions are critical to us as a profession, they will be even more poignant to students searching for examples, leaders, paradigms and principles. If as teachers and builders we don’t have these to give, we might as well pack up and go home.

In this confrontation we may have come to a point where the reality and limits of grammar and structure are ‘inescapable’ – a point where as designers we simply must deal with our mode of operation *on, or within*, these conditions. Yet in our work, and particularly our teaching, there remains a great deal of confusion about what the relationship between structure and freedom might be. In order to bypass this frightening paradox, we use phrases like “rules are made to be broken” and “the possibilities are limitless”. We offer Fractals, Play, Mutations, Collage and Relativity Shifts as new alchemistic paradigms for architecture. But so often these come *in place* of any deep or nurtured understanding of the systems that we might want to *mutate, stretch, or play with*. All of these models are rife with unexplored relationships between the *clarity* of a relentless and inescapable order, and the vast fertility and power of the equally present *ambiguity*. But instead of nurturing this potentially productive symbiotic relationship, we often migrate to extremes, confounding ourselves, and our students, against lessons of history.

On one hand, for example, we hear voices like Rem Koolhaas, in “Whatever Happened to Urbanism” suggest that ‘urbanism’:

“ . . . will attack architecture, invade its trenches . . . undermine its certainties, explode its limits, ridicule its preoccupations with matter and substance . . . ” and that it “ . . . will no longer be concerned with . . . more or less permanent objects but with the irrigation of territories with potential; . . . no longer aim for stable configurations, but for the creation of enabling fields . . . that refuse to be crystallized into definitive form; it will no longer be about meticulous definition, the imposition of limits, but about expanding notions, *denying* boundaries, not about separating and identifying entities, but about discovering unnameable hybrids;”<sup>10</sup>

Meanwhile, back at the [GSD] ranch Raphael Moneo declares that:

“ . . . architecture arrives when our thoughts about it acquire the *realcondition* that *only materials* can provide. By *accepting* and *bargaining* with limitations and restrictions, with the act of construction, architecture becomes what it really is.”<sup>11</sup>

So, while Koolhaas is busy *exploding* limits and *ridiculing* matter and substance, Moneo, we might say, is striking a ‘deal with the devil’, by *accepting* and *bargaining* with them. While Chomsky declares that “without formal constraints there are no creative acts”, he goes on to critique “educational systems oriented to maintaining existing social and economic structures *instead of transforming them*.”<sup>12</sup> Although it would be easy to think of these various positions as conflicting or oppositional, if we begin see them through the lens of a relationship between *poetry and language, or structure and innovation*, we see that although each may push in a particular direction, they are all operating on the same patient, in the same theater.

And here come our students, our clients, our cities, looking for *something*, but often not knowing in what direction to look. Armed and weighted with preconceptions and traditions, clinging like shipwrecked sailors to floating fragments of language and culture, believing *something* has to be done, but not willing to let go long enough to rebuild . . .

. . . And maybe we can help; maybe architecture, in its most radical, deeply rooted form, is uniquely qualified to answer the question of limits and expression; to find the balance between structure and transformation, and provide the one thing that connects all art and all language, the thing of *voice*. But architecture quickly moves beyond the power of a singular voice, because architecture, unlike most art and language is inevitably and fundamentally transformed through *inhabitation*<sup>13</sup> and *time*. In this transformational relationship we find the transcendent strength of *dialogue*.

Can we prepare ourselves to somehow harness the inevitable conflict and beauty to be found between order and freedom? Can we share this with each other and our students? In order to authentically share we must first believe.

“How, with no preparation,” Bachelard asks, “can a singular, short lived event . . . the appearance of an unusual poetic image, react on other minds and hearts, despite the barriers of common sense [and] all the disciplined schools of thought, content in their immobility?”<sup>14</sup> And this is where we find ourselves, inevitably stuck somewhere between this ‘immobility’, and our belief in the transformational potential of the very limitations that restrict us...

our journey may have started long ago<sup>15</sup>  
 but where are we going,  
 and how are we going to get there?

somewhere between  
 leadership and discipline.

the **scribe** studies: order, knowledge, systems, genetics,  
 scientific method, statistics, results, precision.

the *structure* of things.

the scribe dedicates himself to investigation, exploration,  
 and memory

divides, observes and records,  
 articulates rigorously,  
 seeks clarity in the limits of grammar, vocabulary and  
 meaning.

learns the language: *how* to speak, *how* to draw, *how* to  
 build . . . expands *into* language and fills its extreme  
 reaches, like spring sap pushing up from the roots, through  
 the branches into the leaves, leaving none without  
 nourishment, the tree is not changed but filled (by the  
 desire for knowledge).

the scribe is a disciple  
 who learns the rules  
 and by mobilizing its joints,  
 discovers the extent and range of the framework  
 or body.

but the **poet** is not content with this range,  
 with the *prescribed* possibilities of language or the limits of  
 the body.

the poet is driven to speak what existing systems will not  
 allow.

and finds:

rules stifling without *play*  
 knowledge dead without *imagination*  
 genetics predictable without *cross-fertilization*  
 science rote without *invention*  
 order claustrophobic without a *shift*  
 clarity sterile without *ambiguity*.  
     the poet, seeks difference,

new relationships  
 between things,  
 give voice to the unsayable.  
 through their *disorder* these new relationships speak

*beyond* language  
 but are ever indebted to it.

but language is equally indebted to these shifts  
 because,  
 through poetry the structure has been changed:  
 words created,  
 theories proposed,  
 mutations caused,  
 orders stretched to accommodate our desire.

all the while the **leader**,

thinks before acting  
 and examines her *values*.  
 looks for *principles* in the order and poetry around her,  
 looks into her conscience and nature  
 and reexamines her values against the truth she finds.

the leader is concerned with *where* he is going before  
 being caught up with the details of effectiveness.

he examines *what* he has to say,  
 measuring it against the principles he has discovered  
 in her rigorous investigations  
 in her explorations and discoveries  
 in her unfulfilled expressions and ideas.

the leader guides the self before sharing with others.  
 true leadership is always personal before social.

*-can an architect not be a scribe, a poet and a leader?*

structure and order is dead without the shape of  
 difference,  
 but how can we see difference without the order of  
 language?  
 and what use is poetry without an intention to say  
 something?  
 and if 'saying' is an expression of values,  
 should we not examine these values deeply before we  
 share them?

as a scribe:  
 we dedicate ourselves to understanding and mastering  
 the many languages of architecture: geometry, materials,  
 light, structure, space, the body, the city, construction,  
 drawing, program, and movement . . .

as a poet:  
 we strive to find new relationships that express what the  
 orders cannot.  
 in doing this we will expand the languages that confine us.  
 these new relationships may be small interventions, or may  
 be radical

reconfigurations,  
but will generally be proportionate to our fluency in the  
languages within which we operate.

as a leader:  
we examine our primary motivations and aim-our direc-  
tion.  
we will then use this as a tool to reassess our values  
and our effectiveness in sharing these values in our work.

Scribe, Poet and Leader . . .

These three interdependent paradigms connect our innate  
*creativity* and ever-present search for order, as they *use* and  
*transform* language, use and transform architecture, use and  
transform culture, with both power and direction.

Every language is learned  
but all language is within us . . .  
Poetry – the strength and beauty of unnamable relationships  
between *things*, is possible only with the inertia of language.  
Language is ever changed through the force of poetry,  
but both are guided by our power to choose direction.

We must think twice about releasing students from our schools,  
full of ideas and vision, but without the capacity or skill for the  
leadership that they will, as architects, be expected to provide.  
Ironically these same skills, necessary at the very least on a  
building site or in a meeting with a client, might provide the  
real opportunity for true cultural influence. Disillusionment and  
powerlessness are the inevitable consequences of a gap between  
the lack of a leadership paradigm and the obvious need for one,  
and only serves to increase the distance between the aspirations  
and true influence of architecture in our culture. Instead, we  
must develop strategies, assignments and critiques that nurture  
a balance between understanding the structures around us, and  
our responsibility to transform them.

If we believe our society is on a confused or dangerous path, we  
must attend to culture as the laboratory and vehicle for change.  
Culture, in its origin as a verb, is defined by the act of growing;  
a *process* that requires nurturing and participation. We under-  
stand it as *actively growing a framework of shared values and  
principles*. Finding itself both mutable and structured, culture  
becomes a language with the power to transform society as its  
framework generates and channels motivation: love, fear,  
desire, and law.

Architecture is an integral part of culture. And, rather than  
being insecure about its unique *slowness, weight and materiality*,  
we must see these characteristics as providing the necessary  
ballast for culture, giving lasting spatial and material form to  
values and principles. As architecture steadies, marks and

projects the path of culture, it redefines itself as *building that  
communicates*, a voice that can, and inevitably will, transform  
culture.

With increasing clarity we see architecture and culture as  
parallel, interdependent languages, each layered with dialects,  
resonating with both clarity and ambiguity, ripe for poetic  
intervention and waiting for revolution.

## NOTES

- <sup>1</sup> Philip James, chairman of the International Obesity Task Force: (In the U.S., over 55 percent of the population is considered overweight or obese.)
- <sup>2</sup> Heidegger, Martin. *Being and Time, A Translation of Sein and Zeit*. State Univ. of New York Press, 2000
- <sup>3</sup> Chomsky, Noam. "Language and Freedom" *The Chomsky Reader*. Pantheon Books, 1987
- <sup>4</sup> Rilke, Rainer Maria. *Letters to a Young Poet*. Random House, 1986 pg. 4
- <sup>5</sup> Gibson, William. *The Miracle Worker*. Skylark, 1984 -quote from Annie Sullivan pg. 1
- <sup>6</sup> Chomsky, Noam. "Language and Freedom" *The Chomsky Reader*. Pantheon Books, 1987
- <sup>7</sup> Webster's New Collegiate Dictionary, 5th edition, Meriam, 1945
- <sup>8</sup> Wittgenstein, Ludwig. *Philosophical Investigations Part 2*
- <sup>9</sup> Chomsky, Noam. "Language and Freedom" *The Chomsky Reader*. pg 154
- <sup>10</sup> Koolhaas, Rem "What Ever Happened to Urbanism" ANY 9, (Urbanism vs Architecture).
- <sup>11</sup> Moneo, Raphael "The Solitude of Buildings" Harvard GSD 1986
- <sup>12</sup> Chomsky, Noam. "Language and Freedom" *The Chomsky Reader*. pg 149
- <sup>13</sup> Bachelard, Gaston. *The Poetics of Space* Beacon Press, 1994
- <sup>14</sup> Bachelard, Gaston. *The Poetics of Space* Beacon Press, 1994
- <sup>15</sup> Francisco, Scott. *fragment* "third year studio, syllabus" University of Kentucky, Fall 2002

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