Wild Cosmopolitanism, Wily Oscillations in Artificial Neighborhoods

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> Might it not be the contrast between the impassive stones and such disturbances, which convinces people that, after all, nothing has been lost, for walls and homes remain standing?
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> — Maurice Halbwachs, *On Collective Memory*, 1925/1992

> He then punched the stucco frame about the door to the sacristy. A piece of stucco fell off. "See?" he said. He punched it again, casually... "Look, this place is really old! At least a hundred years. These chunks come off easy!"
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> — Alfredo at the church of La Manga, Chile as witnessed by Gastón Gordillo, Rubble, 2010

Cosmopolitanism has garnered renewed critical attention by questioning the disposition to travel without risk and full of entitlement in mind, body, and spirit to faraway places, and now to foreground struggles over ordinary existence within new arrangements of imperial power. For the cultural critic Paul Gilroy (2005), living equitably, respectfully, and clutching a "cosmopolitan hope" turns on the refutation of "state-centeredness and its attractive vernacular style" (p. 67). Vernacularity has itself been routinized and monetized and now a "vulgar" or "demotic cosmopolitanism

> becomes necessary to estrange oneself from dominant culture and history. Instead of resting easy with open information borders, global markets, and exported democracy, we must learn how to live with "exposure to others" and to push back against a "universalist rhetoric. (Gilroy, 2005, p. 59)

Across the works of Anna Tsing (2005) we find a similar commitment to live within, yet against, universality such that spots and moments of "friction" reveal an "urgency of particular cases" within the "universalizing logic of liberal sovereignty and biopower" (p. 5). Everyone, it seems, is the world citizen who either freights direct claim or subtle exposure to global, diasporic selves that can engender a "wild new cosmopolitanism" premised on "unstructured multiplicity" (Tsing, 2015, p. 98). Throughout this essay, common forms of residence, whole neighborhoods, are now built to be friction-less, such that renewed efforts are necessary to take measure of how sameness is manufactured into daily living and where vulnerabilities and disruption may occur for fruitful and nefarious ends.

The production neighborhood has become firmly ensconced in the social imaginary where I live in the western United States but also well beyond. Its globalizing virtue is an engineered pastiche of closely knitted homes arrayed in uniform, pastel, and pastoral swatches by a single, efficient developer. Their designs present an orderly lifeworld with tightly scripted spaces and marketing plans to respond (so they claim) to population growth and the need for a strong, local economy. We notice these neighborhoods, spreading outward, when we lift off from airports, a heritage going back to Levittown, New York, begun in 1947 as a planned community just two years after the first atomic bomb was dropped on Japan. When I fly from Denver International Airport, I see these neighborhoods, the fracking fields near them, and shrinking prairie lands, but then I turn away, back to my cramped workspace and dry pretzels. I've seen all this before.

The neighborhood, produced and marketed through a universalizing rhetoric of stability, affords an attractive and familiar life that distributes the patina of a suburban pastoral; yet that veneer disguises the neighborhood's complexity as technological object and network. Without doubt, clusters of homes built efficiently for profit and demand and all the while complying with city, county, and industry codes not only are a technological

achievement but a spectacular one given their scale and success. The neighborhoods of one developer and then another offer variations on a singular form with style, and function differences owing much to the developer's and the city's refined abilities at designing, coding, building, and approving for occupancy an advanced technological object. While it is common in rhetorical scholarship to consider homes and neighborhoods as the reification of the public imaginary, as the "Pleasantville effect" (Dickinson, 2015) or perhaps as a history of the urban artifice (Hayden, 2003), the design and implementation of 300 homes on 100 acres of former agricultural fields and grasslands gathers its marketing presence firstly as a single, coherent object (e.g., an "anthem" home, a "prospect" home) belying its "thing-and" as Heidegger proposed (2008), for most things gathers within themselves as they gather and assemble the world around them.

Susan Leigh Star (2015) proposed some time ago that technologies are embedded as and within other infrastructures, such that structures and objects flip positions of authority. For example, the US interstate highway system can be objectified for policy debates, yet it operates silently as a web of scientific, engineered and technical relations providing stability to culture until there are cracks in the pavement or catastrophic wrecks. Infrastructures are boundlessly relational such that my favorite sauce pan nor my laptop can be touched in a specific moment of contact but should never be isolated from overlapping networks of biological or technical influence. Infrastructures are then materially and geographically distributed with boundaries and nodes of intersection though suffering from a representational fixity that belies their tendency to move, emerge, and then at times break. No system escapes the potential to stop working or worse to be "thrown into chaos" warranting the special term "*apraxia*" for the technologist Langdon Winner (1989, p. 186).

Infrastructures are by Star's telling (2015, p. 380 ff., her words in quote.) "embedded" as are other assemblages (cf, Delanda, 2016) making it difficult to determine the borders of one social or

technological system from another (we drive on roads; we drive quickly because we are late). Their usefulness and accessibility are taken for granted, as "transparent" because they are designed to be, and evolve to be, invisible. They gain coherence and value because they occur "beyond a single event" so that at any one time, they hum with the engagements of multiple agents (not limited to people). Public life in this way gains its collective sense of belonging by way of the spatial and temporal scale of normal, everyday infrastructural systems.

   Knowing *how to infrastructure* means knowing how to belong, and as such conventional routines for using infrastructures insure "membership" for people and society (we can extend this to animals who know when to cross the road), though with unequal paths to social acceptance. Knowing how to infrastructure, then, requires a learnedness which then instills many of the "conventions" of community practice, and as such compile over time "standards" that can be monitored, monetized, and at times policed. All infrastructures are installed with a "base" that may be biological as roads follow the contour of a river or technological as roadways, railways, gas stations, and above-ground wires move through a terrain with graceful orchestration. And then there is *apraxia*, or the potential to bend the wrong way, to break essential structures or routines, or to come under direct attack. Though neighborhoods are built to age in place with modest care, as infrastructures they too are prone to "breakdown" and our denial of their disruptive potential helps to disguise the complete dynamic capacity of ecological resiliency in residential environs.

   It is this within-system, within-residence capacity for disturbance, decay, and at times outright violence that concerns this essay, because technological infrastructures impart a vulnerability, whether of immediate, visceral consequence or more subtly distributed across global systems of unequal wealth, resource depletion, or the right to work and sustain a family. For Nathan Stormer and Bridie McGreavy (2017), vulnerability is "permanent" and "material" (p. 16 ff.) and is therefore conditional to life itself. To understand technological interrelationality, the resident, the critic, the policy maker, and (I would argue) the engineer might need to understand at a visceral level how vulnerability exceeds the designs of residential home life which would then elevate the production neighborhood as a valued, cultural test site. Ian Hodder (2015) applies "evolutionary archaeology" from the Neolithic age forward to frame vulnerability as systemic "co-dependency," a condition people have with their objects and infrastructures and always in

fragile relation: "In the practices of daily life things fall apart, decay, run out, go wrong, need each other in sequence" (pp. 94-95). Vulnerability then is essential to any hope of achieving "ecological thinking" as Stormer and McGreavy (2017) have articulated (p. 5) and is a prime reagent for wild, vulgar cosmopolitanism, because vulnerability reveals itself through exposure by way of daily engagements with complex systems and then with others who are more or less accustomed to technological prescriptions.

There is a traceable relational history, over time and through geographic distributions, of the atomic bomb, the deforestation of the Pacific Northwest, nomadic labor, and plant life and living at home. For Tsing (2015) the diversity of ecosystems, and all their relational elements, must be foremost understood as "contaminated" on both local and worldly stages. Plants, people, techno-scientific artifacts, and economic futures are thrown into fitful relation after waves of geopolitical and economic violence. In her case, the mid-century discovery and refinement of nuclear fusion led to mortality and morbidity calculations and the decision to save western lives by bombing Hiroshima, and in that flash of technological arrival all built and living things were incinerated except for the microbiological remainders in soil and ash, a perfect seedbed for mushrooms and then a few years later, jumping domains, Levittown. Biology, as is often told, will survive the arrogance of violent men and oblivious people. And when Oregon forests were logged clean of Ponderosa Pines in sync with federal prohibitions against natural burning cycles, a forest on the other side of the world readied itself for a comparable result: Soil it seems carries within it a wildly cosmopolitan attitude because whether scorched by fire or logged clean for building lumber a seedbed for mushrooms and economic renewal flourishes. Loggers in Oregon lost their economies but discovered the harvesting of a tenacious plant. Much earlier in the 20th century, southeast Asian "hill people" fled from refugee camps in Laos and China to recover their economic basis through mushroom harvesting, an ethnicity as well as an economy tied to the storied Matsutake mushroom of poetry, lore and with considerable market value.

It follows that "disturbance-based ecologies" exist throughout the world (Tsing, 2015, p. 5) and are not limited to extractable forests: They carry forward in residences and neighborhoods everywhere. Vulnerability might be diminished through vigilance, but such precautions must be premised on a conditional embrace of *apraxia*, the breakdown, disturbance, decay, and "ruination" (Ackerman, 2018a). Vulnerability will take hold with different time signatures:

sometimes the violent break is severe, loud, and visible but other times insidiously slow, quiet and invisible. The flash of a bomb is visible as is gun violence in the street, or fire and the ensuing floods down a mountain side. The rhetorical project for this essay is one of learning better how to witness slow and fast vulnerability across personal, relational, and conceptual levels and degrees of encounter. Which is why the planned, residential neighborhood serves as the litmus case. Perhaps learning to infrastructure is most difficult at home with its inducements of dwelling, security and sovereign identity yet when vulnerability reveals itself, it comes with the stickiness of a homely, "momentary hold" (Tsing, 2015, p. 29). To my epilogue, "impassive stones" are illusions that people affix to the built world—all biological and artificial matter constantly decays and transforms. And then someone, often the more humble among us, knows the malleability given to vulnerable substances. Alfred, as told by the anthropologist, is a peasant in his neighborhood yet stands unshaken beside the authority of the church because he knows gravity well and the viscosity of mud, and he has the skill, the *metis*[1], the timing and verve to speed this process along for his ends.

Captive Neighborhoods

The production neighborhood where I now live was drawn from precedent long before it was built to be an orderly array of 300 houses with paved and green common areas and a swimming pool. As an object, it looks a certain way and markets a way of life. But as an infrastructure, it includes an enormous array of elements, some material, some immaterial as codes for daily living that circulate well beneath ordinary perception. In a scattershot, the neighborhood constelles culverts and cables, vehicles and traffic patterns, play structures and time after school, boundary objects[2] and HOA codes, chemical compounds and fulcrums, viscosity and tensile strength, ceramics, plastics, and chemicals such as

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[1] The term is troubled from the start because it ascribes a general ability to adapt in clever ways to dire circumstances when in fact there are different thresholds for success in cultural adaptation. See Metis, *Métis, Mestiza*, Medusa: Rhetorical bodies across rhetorical traditions by Jay Dolmage (2009).

[2] Star and her colleagues admit that the term is wobbly, but it generally refers to tangible scientific and technical markers recognizable to different parties, different specialists, different publics but with enough common elements and recognition to bind the communities together. See Griesemer (2015).

formaldehyde, R-values, fossil fuel extractions, economic indices, and armed police, housing stock and structural precedents, concrete aggregates and density coefficients, lot sizes, loan-to-value ratios, tax incentives and slopes and drainages, rivers and creeks, atmospherics and climate change, shrinking farm and wet lands, traffic calming devices and security lights, the din of a small city east of Boulder, and around midnight, the choral yelps of coyotes. Yet day to day most of my neighbors see none of that, nor do I.

   Suffice it to say, any neighborhood, old or new, large or small affords all of the elements known to complex infrastructure and then, as Star proposes, in other networks including earth. Breakage, decay, disruption, and their ensuing vulnerabilities typically are hidden from view, but then they surface through sensorial encounters in moments of precarity. Wild cosmopolitanism in its most optimal sense thrums along to help us notice the political and economic interests that prefer a quietly stable, if not harmful, habitat. A *quietly stable habitat* is precisely what many residents want for their rural-residential lots. Such nostalgia and self-containment are being quietly swept aside by two economic forces: deforestation in East Asia and the Pacific Northwest and then the suppression of lively, excitable bodies in actual ecologies. Forests clearly are part of the precarious history of single-family homes though the full history disappears into uniform building codes, glossy marketing materials, and then literally behind the walls of buildings. Weyerhaeuser is a global company with holdings across the US and Canada. In the Western zone, it owns 3.6 million acres, more square miles than the state of Connecticut. Of its wood products, the majority, by its website and consistent with the homes in my neighborhood, are wood byproducts in the form of plywood sheathing, engineered trusses and joists, and MDF (medium density fiberboard) trim. According to a study by the US Department of Agriculture (Lynch & Mackes, 2001) between 90% and 100% of wood materials are imported to Colorado year to year,

and of the 8% of materials milled in Colorado, most is shipped elsewhere. Idaho, Oregon, and Washington are three prominent forested states that supply local builders. Thus, my neighborhood is directly and indirectly implicated in global deforestation because my neighborhood fuels the global desire for a non-renewable resource and the myth of self-contained living without disruption.

"I look for the same forest in different guises" (Tsing, 2015, p. 163) and thus one challenge to this critical imperative would be to trace crossing currents of disturbance and ruin, looking back in time, and then outward into parallel systems of production. Weyerhaeuser has been buying land for over a century, and so when Tsing visits the pine forests of northern Finland and walks through a natural forest that "looks a lot like an industrial tree plantation" (p. 168), she walks allegorically through Weyerhaeuser land in Oregon and then into my house. I live within a building frenzy, and there are thousands of new home starts along the front range of Colorado (nearly 13,000 new homes, according to Metrostudy, an industry data clearinghouse). There are not nearly enough roofs and beds to satisfy the surge of people moving to the Denver area. Weyerhaeuser was recently flagged by the local health authorities because some of its engineered floor joists used a fire-retardant that was too toxic for enclosed spaces, harming both laborers and residents. The MDF board and composite materials throughout our homes requires a significant period of off-gassing to vent formaldehyde and other chemicals used as bonding and surface agents in engineered wood products. Both laborers and residents then live with a manufactured precarity wed to chemical treatments, high-speed construction plans, and overpopulation and with the compounding factor that less and less board feet of framing lumber are available, leading the industry to rely on chemicals and compression to turn wood pulp into a more diversified catalogue of building materials.

Contaminated diversity in the generative, inclusive, wild, and resilient sense that Tsing extolls evolves out of actual sometimes violent contamination and thus the "life of the forest" or life in the neighborhood are complicated ones to tell. Storytelling requires working up and down streams of history and laterally across overlapping infrastructures so that memories stem from systemic adjustments, not simply a momentary jump in attention. Everyone I know in my neighborhood likes their new home and projects a willingness to speak positively about the neighborhood; they work to find value in the common spaces they share. The spring rains were heavy this year, and the weeds exploded in native grass areas

causing concern for some because they valued pristinely trimmed grasses and refreshed exteriors in a neighborhood marketed almost exclusively through picture books and display monitors. We bought our houses from idealized images of a rural residential life in Colorado, and not because the Pacific Northwest was running low on board feet of framing lumber reverberating all the way to

fracking wells nearby
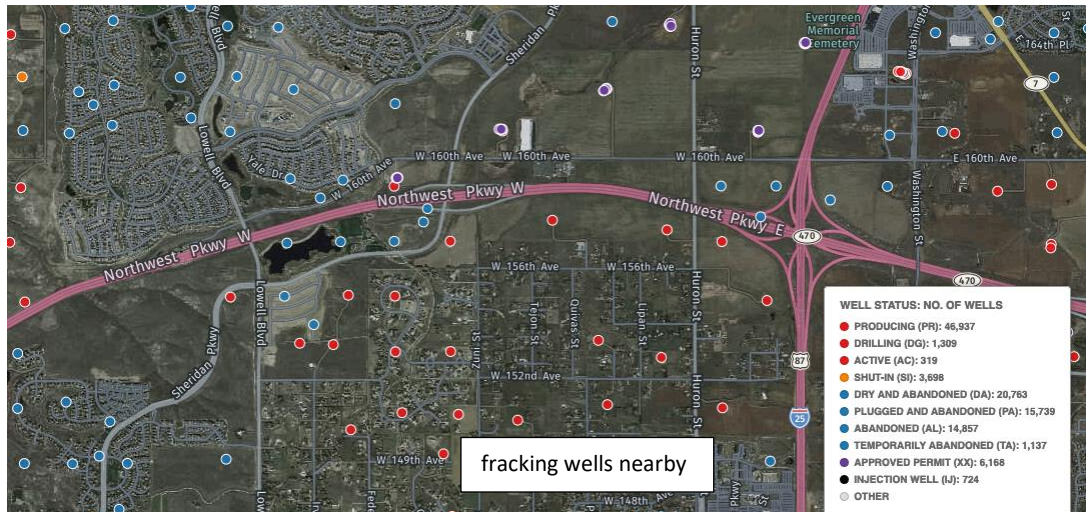
deforestation in east Asia.

My story, admittedly of distant relation to Tsing's stories of mushrooms, global migration and contagious economic fortunes, spawns from my cycling or driving to work through grasslands, themselves expropriated long ago for grazing rights and now soon to be turned under for fracking hubs[3] and new homes. One over-arching practice in housing development severs the relation between the maker, the material, and the eventual resident; we are not to know who pours cement, frames the house, insulates the walls, and installs the central systems of water, heat and light. Those who build work closest to toxic materials and off-gassing and are forbidden from any dialogue with consumers to keep the pain and toil of building away from the joys of ownership. I do not know the racial and ethnic mix of the people who built my community, but by observation and dialogue, I've come to know that my neighborhood is largely built by a Latinx labor force, much of it migrating north over several generations and fence lines. Most of the major subtractors are owned by Latinx families in Colorado and, according to those who framed, plumbed, drywalled, painted,

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[3] The map of active and dry fracking wells is publicly available from Denver Post (Hamm, 2017).

roofed, and landscaped my block, are either Mexican men or from contiguous regions in the southern hemisphere.

   One landscaper grew quiet when I asked about fraught, distant relations back home in Mexico, and the white male crew chief confirmed that President Trump's *ad hominem* attacks on immigrants put them on edge. The landscape company's owner has a long affiliation with the construction company, and when asked about why the bosses looked to be all white and the crews not, his comment was that white men (today) would not endure the long hours in this kind of employment, and so either they left the industry or moved up in the managerial hierarchy (though only a few). The crew that completed my back yard was highly skilled in stonework, block walls, stucco, and concrete, and they were denied access to the US one season because of border politics, in effect slowing down much of the land and hardscape construction needed to finish production neighborhood homes in the region. Many of the other crews were citizens of the US, but they too looked away pensively when asked about political life in the US. These crews were exclusively men, working absurdly long days in the summer months. After framing for twelve hours, some of the crew played a version of Sepak Takraw until darkness fell, a mixing of hacky sack and volley ball over a net of extra framing lumber. My job through the day was to bring them water and soda (Coke original, thank you, no energy drinks), which on some occasions would be re-distributed to all the other crews and to localize hydration.

   "Contaminated diversity is everywhere" (Tsing, 2015, p. 33), and so community understandings of how to exist within an infrastructural zone will include some and exclude others. The conjunctive, rhetorical opportunity here would be to learn what it means to live (to work, to reside) in circumstances that invite the practice of vulgar and wild cosmopolitan living. Tsing's (2015) comment on American life sobers and it uplifts:

> American precarity—living in ruins—is in this unstructured multiplicity, this uncongealed confusion… we live with unrecognizable others… And if I tell this story within Asian American worlds, do not think it stops there. This cacophony is the feel of precarious living for both white and colored Americans—with repercussions around the world. (p. 98)

Precarity and vulnerability always diversify along racial and ethnic grounds, as it does in my neighborhood, although none of the marketing materials or codes for production provide a hint.

In the space of this essay, I can only begin to weave together the biological and technical webs that might connect Colorado and Oregon to Laos and China, but I will end this section by highlighting the willful denial of complexity and complicity through the marketing of economic prosperity (cf, Hanan, 2010). Every element used in construction, every structure, every surface, has been classified and weighed for its economic value in producing marketable product for a niche market, and this tidiness sells. To live in Boulder County either requires some degree of wealth or some tolerance for debt—or both—because the median sales price for the county is over $500,000 and for my city over $600,000. The specifications for an entire 300-home neighborhood goes through a lengthy period of review culminating in a Plan Under Development with numerous signatories to ensure that form and function meet the codes of the city and county and to serve as a guide for a phalanx of subcontractors who must execute the plan precisely to the developer's calculations. If a typical four-bedroom house on a lot takes nine to twelve months, these houses are built in six, owing to the repetitive nature of each crew's tasks and documented efficiency. Nothing is left to chance, or to art, or capricious thought. Choose any of the overlapping systems—kitchen cabinets, flooring, electrical outlets and fixtures, window, siding and trim, bath and sink fixtures and so forth; the buyer chooses from basic options, then pays sight-unseen for upgrades so that installers know by heart what to do. I wanted a small soak tub for bathrooms; I was given one choice (a good one, but one); I wanted to add a basement window to anticipate a future office space, and though I got one, the general contractor who made the decision was upbraided by management for allowing this variance though the change did not compromise cost, structure, or time to completion. The crime was a generous willingness to diversify someone's living space upon their request.

Production neighborhoods advance much more than efficiency because of the withering number of limits and codes for what a house is supposed to look like and who is supposed to live there. Red-lining was outlawed by federal housing authorities over 50 years ago, but economic red-lining remains for those families whose sense of art, tradition, or function are disallowed because they do not meet the conventions of infrastructural membership. Sarah Ahmed (2000) writes against the universal relativisms that circulate in real estate such that anyone could at times feel strange in someone else's neighborhood, somewhere. Ahmed argues that neighborhoods are built with "techniques for differentiating strange from the familiar" (2000, p. 25). As the physical structure encodes

a way of life along with marketing materials, so do the "governing documents," a legal term for the clutch of documents, submitted by the builder and inherited by the residents for managing the property. In order for the builder to proceed: An Article of Incorporation is filed with the state; a Charter is filed with the county that specifies the legal and fiscal authority of the builder (known as the "founder"), the members, and the association for managing a legally constituted non-profit. The builder then supplies at the point of sale Bylaws that establish the powers and limits of the Board after the builder also has submitted the Plan Under Development to the city. The Bylaws, of course, come with a lengthy set of rules and regulations for homeowners. There is little room for strangeness in these documents, as there is little room for variance in how one shops and lives it would seem. In Sonia Hirt's (2014) study of zoning practices in US residential development, the original motive for American building conformity was to preserve the common good. Introduced early in the 20th century, zoning and building codes helped to distinguish home from work and helped to keep people safe and healthy.

Embodied Technicity

Technicity would be considered by Tsing (2015) to be a "polyphonic assemblage"[4] that "cannot hide from capital and the state; they are sites for watching how political economy works" (p. 23-24). Technicity within a residential neighborhood must then engender "sites for watching" with sensorial powers operating at the highest level. If vulnerability is one of the most important offshoots of technicity, then we need some practical arts for alerting people of their culpability in our mutual demise, if they see it that way. Gregory Bateson (1972/1987) argues that the fallout from technological innovation after World War II was the obfuscation of the pretense of "balance." Equitable living simply was built to be extracted out of daily comprehension and replaced with a "purposive consciousness" that blinds us to systematic complicity and endangerment: "Lack of systemic wisdom is always punished" (Bateson, pp. 441-442).

Sighting and witnessing technological complexity and complicity are very much the modern-day problem. As Gilbert Simondon (2012) espoused in the mid-1950s, technicity and the social world,

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4 For a similar usage, consider Donna Haraway's (2017) discussion of "symbiotic assemblage" (p. 26) or Alexander Weheliye's (2014) development of "racialized assemblages" (p. 50).

inclusive of culture and science, exist in a "phase relationship" such that any moment of arrival (the invention of a device, the breakage in a system, the inauguration of a new housing development) occurs momentarily as the splitting of some "thing" from its reception. And then in phase there will be closure (with more phase shifts to come but with invisibility becoming more routine). Our senses are perhaps more closely drawn to linear progressions of development over time though we may sense the gap, the split as a "phase ratio in physics" (Simondon, 2012, p. 173). Phasing is difficult to witness and can be written away as discursive closure, however Mark Hansen's (2000) term for that exercise is "technesis" or "putting-into-discourse…and the progressive assimilation of technology to thought" (p. 4). The temptation to spell-bind either the evolution of a device within a socio-technical field of emergence, or the emergence of disturbances within infrastructures would then require "expanding the scope of semiotics beyond its hermeneutic enframing" (Hansen, 2000, p. 213) and toward a similar yet distinct version of Diane Davis's (2010) "prehermeneutic" affectability. Hansen (2000) invokes a similar "posthermeneutic realism concerning culture and technology…that draws directly on our experience as embodied creatures" (p. 213), as I do for the rest of the essay.

For any land-based assemblage, like a forest, or infrastructural assemblage, like a neighborhood, we will find what Felix Guattari (1993) identifies as the "mechanosphere that superimposes itself on the biosphere" (p. 17). Mechanical impositions must then be understood as themselves woven within a biological context. Infrastructures are "as hard to see as a light rain through a window" (Peters, 2015, p. 35). As a common property, they are restricted to those who know them best, and their stated and implied rules tell people whether they are welcome or not. And their silence and invisibility only become visible when something breaks or when the quotidian encounters somehow trigger a more studied attunement.

I have recently proposed, (Ackerman, 2018b) "oscillation" as a workable term and sporadic event to chart those precise, sensorial points of contact that, in retrospect, catalogue diverse technicities and their geographies. Oscillations happen everywhere and are open to everyone, though they will confront varying degrees of readiness and ability upon their enlistment. Oscillations are those asynchronous moments, always tied to physical movement and sensorial engagement, that transport the body from presence in the world to meaning in the mind (cf, Gumbrecht, 2004), and back again. Oscillations are not merely pre-hermeneutic, as Diane Davis

has proposed because they too, like mushrooms, have a long history of membership in a non-hermeneutic world of matter-body-mind traversals. I do not mean to diminish the role of discourse in any biological or technical arrangement; it needs to find its place to the degree that when it is hailed, it occurs in precise moments of breakage and exposure, thus helping to identify surfaces, edges and breakages that clarify someone's or some thing's vulnerability.

Our attention deficits have been noted by many because—as Annie Dillard (2009) bluntly states in *An American Childhood,* "The Interior Life is often stupid…The trick of reason is to get the imagination to seize the actual world—if only from time to time" (p. 20). Those times, those infrequent moments are the "jumps" Kathleen Stewart employs in *Ordinary Affects* (2007, p. 4) that bring presence in the world closer to meaning. There is no precise ratio; no map to guarantee the synapse. The jump is a commonplace event without political motive until it galvanizes as hyper-vigilance, perhaps, as I tried to demonstrate, to assist in comprehending a vital urban ecology and preferred states of equilibrium. It might guide the divination of affective exchanges across ordinary spaces that may, at times, punch through commodified habitations and tyrannies of representation. Pauses, gestures, reroutes and furtive glances can help people coalesce around socially valued narratives, inconspicuous spaces, and banal objects and routines that otherwise go unstated—and they can index moments of disjuncture, instances of lost time, out-of-kilter objects and broken promises. All these opportunities depend upon scientific and technical complexity—we live in a world enlivened by the textures and rhythms of built things.
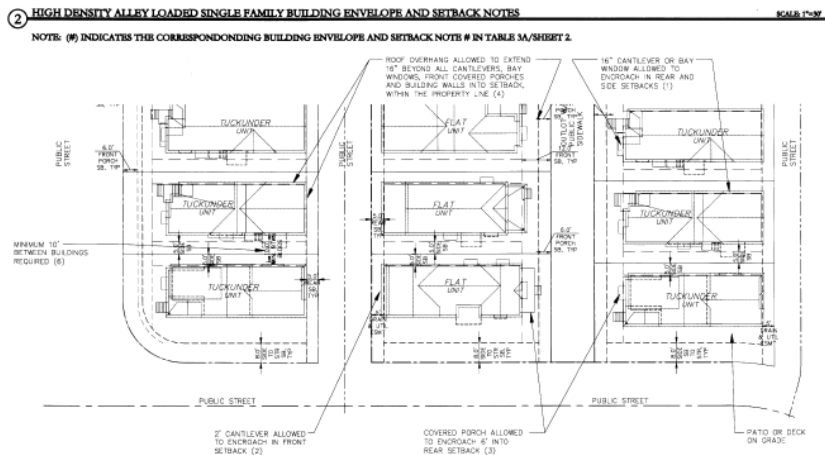
Full-body jumps that precede and exceed critical reflection may host a level of precision less attainable were we to read blueprints, marketing brochures or even technical documentation. "In the points of precision…what matters is not, first, a meaning but a singularity of an angle of approach, a surprise contact, an opening onto some world's co-composition, a groundswell of a thing that does not yet have a name, thrown into a soft focus as a threshold, a voicing, an overlap, the momentary flourishing of some capacity (Stewart, 2016, p. 43). The context for why most jumps fade from meaning is the same context for why they can spiral upward to become powerful—they circulate in a complex world with radically, empirically different ways of entertaining coherence and solidarity. Is it possible to imagine a common plane of existence indexed primarily through shared oscillations rooted in melancholy that has evolved out of violence and upheaval as an instance of ecological membership? I maintain it is, although a "technological unconscious" (Thrift, 2004) circulates now on a global scale because of science and technological densities and universalizing rhetoric and habitational structures.

As Meredith and Nathan Johnson illustrate through bread-making at the La Segunda Bakery in Tampa, Florida (Johnson & Johnson, 2019), the senses play an extraordinary role in the crafting of urban spaces and defending them against rampant redevelopment. Sensoria are therefore instrumentally essential for the discovery and recovery of "disturbance ecologies." Oscillation will occur in ordinary and extraordinary circumstances, as in a chance meeting with Hmong mushroom farmers that triggers both the recollected, ecological affiliation of a Chinese resident, or for that matter, when one steps onto forested lands in Oregon, Finland, Thailand, Japan or out my front door. Disturbances vocalize upward from sensorial contact in serendipitous moments and in their most powerful form as "synaesthesia" (Abram, 1997). The senses act as cartographic guides because they eschew uniform tracking, preferring to divine "improper affiliation" in a contaminated world. For Mel Y. Chen (2012) impropriety is an assembled affair of recaste kinship, belonging, and disability now fully and brilliantly "queer" to gather vast, uncharted territories by way of "subjectivities, intimacies, being, and spaces located outside of the heteronormative" (p. 104).

Impropriety, contamination, vulnerability, ruination and disruption must be yanked from their outlaw moorings to claim their centrality in ecological regeneration and survival. The scientific case for why and how the senses are directly linked to

ecological exposure advances steadily because mirror neurons are now proven (Pitts-Taylor, 2016) to be "developmentally plastic." Pitts-Taylor concludes that to be "genuinely social, biological mechanisms must be affected in some way by social interaction, which always occurs in contexts" (2016, p. 82). What people come to understand as "Kinship is deeply embodied in the neurological story: it is built not on the rules of culture, but on the body's capacities for generating inter-corporeal bonds" (Pitts-Taylor, 2016, p. 98).

And so, vulnerability, and the phenomena that engender it, live at the core of our beings were it not for the cultural habits of denial and distraction and for the motives of profit and control. Wily oscillation occurs when bodies move through un/familiar environs to notify the collective self of where disturbance-based ecologies reveal themselves as places for just living.

Coda: The Weeds are Coming

For the philosopher Peter Sloterdijk (2016) the question of *What happened in the 20th century?* can be summed up as a headlong retreat from complexity and toward universality. What *we* achieved—those who boldly crossed the frontiers of science, economic, and technological development—was a "breaking free from the dogmatism of gravity" (Sloterdijk, 2016, p. 61) as if being pulled back into the planet's ecological orbit was a bothersome deterrent. His rejoinder, as quaint as it sounds, is to "*actualize the truth directly in the here and now*" which is what this essay calls for along with its leading sources (Sloterdijk, p. 60, emphasis his). But how does one actualize vulnerability at home?

If residential infrastructures are designed, built, sold, and lived to be invisible by sight and touch, then sensorial engagement becomes more than a superficial confrontation, more than mere affective consumption or aesthetic twist. If the technological unconscious brackets sensorial engagement but leaves in place "spaces of

anticipation" (Thrift, 2002, p. 175) then the routines, surfaces, memberships, and planetary bases and embeddings will be touched in the most immediate sense of body-matter oscillations but then additionally refined through the understanding that spaces are produced, anticipations are structured, and as such vulnerability is wisely close to the skin yet frustratingly beyond our perception. Thrift's (2002) bright note about the technological unconscious is that "modern complex systems are so overdetermined that in their interleavings all kinds of gaps are likely to be found in which new kinds of 'excursions' can be coaxed into existence" (p. 188). The weeds and mushrooms are coming to show us the way home. Vulnerability is conditional in daily existence, and it may reveal itself in residential life through direct violence, normalized decay, insidious designs, or systemic disruption—the fate that befalls the forest, befalls the neighborhood. Perhaps knowing that chemicals bind our houses together as much as nails will not reduce the sense of being vulnerable, but then the knowledge of global systems, a shared sense of precarity, and the ordinary limits and challenges in making do provide a basis for adaptive community membership. A science and ethic of vulnerability could lead to all kinds of visible installations for learning how to infrastructure. The City of Boulder, as many communities do, provides metrics for gauging flood stages across time and then information kiosks to catalogue catastrophic events. Imagine a public history for each neighborhood's infrastructural breakage and then whether and how an adaptive, inclusive rejoinder occurred. Foremost residents must come to understand that neighborhood stability can have social value, but it must be allowed to contaminate so that bodily movements—people, animals and plant life, even the mechanosphere of the neighborhood itself—are encouraged and rewarded. This means that infrastructures oscillate and one of our best instruments for tracking these reverberations are our bodies moving in and out of compassionate attention. Tsing (2015), having informed this essay, concludes: "What do you do when your world starts to fall apart? I go for a walk..." (p. 1).

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