Planets, Landscapes and Bodies: The Body as Landscape

Since the 1980's and then throughout the 90's, and up until now, design fields have been feeling the irresistible appeal of the disintegration of the disciplines. While there are a number of causal pressures one can find for this, one aspect has been the progressive integration of concepts or models of 'medium' or 'media' within the fabric of concrete things themselves. Things are never only themselves, insofar as they are vehicles or assemblies of/for other things.

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In the field of Architecture, the integration of the concept of 'medium' is ever present but contemporarily emphasized partly by the influence of "A Thousand Plateaus" by Gilles Deleuze and Felix Guattari [1], with layer(ed)(ing)-based realities that find topological common points of readability. And, as well, in more recent writings interested in reality's liquid hyper-objects and OOO (object oriented ontology) [2], in a flirting with uncertainty over the actions of experiencing and naming/cataloguing. The concept of 'medium' is indeed a complex one because it at once over defines rules for a game that then stands back from playing in character. The potential extrapolative and speculative nature shared by Architecture and Landscape Architecture as disciplines create an ambivalence; finding intersecting and effective modes of conjuring understandings of 'field' that can transform both areas, it is pertinent to look at their common futures, as they continue their way into this century, dominated by the new era-concept of the Anthropocene. This supposed paradigm shift—we are no longer able to discern natural from artificial—is intertwined with a 'lens' that is able to turn anything into a 'medium'. Above all, Landscape Architecture has to engage the circumstantial. It always proposes the engagement of defined entities in spaces and ecosystems that are not absolute, but temporary, in different scales of time.

MEDIUM AND MATTER

Contemporary themes from disciplines such as new media and information and communication science have an increasing presence in architecture, urban design and planning discourse, as communication technologies find pathways into the very materials with which buildings, cities, infrastructure and landscape are built, negotiated, articulated and re-imagined. Social and Web media impact—or are being reabsorbed into—discourses that deal with navigation and space at varying scales of experience that create many new gradients within the private and the public. Increasing sensitivity, miniaturization, remote control, automated decision and networking capabilities create new opportunities for relationships between individuals and collectives, and broadly between humans and environments, bringing forth more clearly the new ways in which territories of knowledge and learning are complexly defined. This, arguably, creates new realms for the intersection between real and virtual entities and

alters how they participate in or construct actual environments, spaces, things. In 2005, Bruce Sterling coined the word SPIME[3], to describe an object that is aware, and broadcasts its own history across the network. SPIMES are new types of objects that belong to ecosystems that learn using virtual models that precede objects; are not primarily objects; and are able dismantle existing objects for reassembly, parts, or recycling. Although Sterling's description describes concrete material and immaterial entities, the concept of SPIME can easily be a model of the way in which the 21st century asks us to think of any entity—as a temporary assembly with a dense past and a flickering, albeit also dense, networked future. If seen from a distance, one could say that the field of Landscape Architecture sews patches into new apparent continuities that work both vertically and horizontally in the planet's crust. In this way, landscape works very much like a fabric or medium through which other assemblies are able to travel, be nurtured, grow and also be controlled within a framework of 'use'.

Notwithstanding this, the range of elements that landscape uses, while different from that of architecture, can be said to nowadays provide a better framework to engage architectural problems as it offers ways of thinking about fields and bodies which go beyond usual cultural classifications used by architecture. Architecture thus deals with potential entities and bodies that are strongly performative in nature, and therefore engage culture as a performative rather a taxonomic character. Still, the nature of behaving like a 'medium' in these disciplines still leaves some questions open as to the specific format and role of that mediation. Perhaps some insight can be gained on this from Sloterdjik's "Architecture as an Art of Immersion",[4] where he makes the case for Architecture as a field which is nothing but a medium through which things embed into other things:

> "The house is a diving facility, as it were, in which the immersive comportment of humans towards the world is attended to. Dwelling is the original relationship of humans with their designed environment—a fact, though, that is specifically elucidated only through the building of houses. To dwell in houses implies the art of substituting the original environment with a designed space. What the designed space has in common with nature is that it takes on the role of total environment. By being thoroughly man-made, however, it is at the same time nature's complete antithesis." (…)
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> I propose that philosophy is a general theory of situations. To philosophize means to theorize situations. A situation is defined quite generally as a relationship of coexisting elements. The factors in this relationship can be listed in this way: situations are forms of coexistence of someone with someone and something in something." (…) The first something is meant to indicate our accessories, our equipment, (…) The second something, however, refers to the spaces in which the togetherness of someone with someone takes place, (…) and it should be clear that immersion only becomes genuinely interesting when collectives are caught up in shared immersive baths, from twosomes to dictatorships."

I would like to propose that we look at some ways that the a reframing of bodies & entities demands reform from our disciplines—to not only evolve as disciplines, but also to evolve a self-understanding as a practice. Importantly, many of the examples I will look at come from Science Fiction, whether formulated by authors or scientists themselves.

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Figure 1: Mark Tansey, "Robbe-Grillet Cleansing Everything in Sight"

SYSTEMS, SITES, LANDSCAPES

It is impossible to think of Landscape as a site without thinking of its historical role as place of projection for cultural desires[5]. This construct continues to formulate new bodies (bodies seen as landscapes, for example in descriptions of microbiomes and their function in the human body) as well as serve as an assembly of layers upon which more may be added—all easily accessible to understanding, monitoring and manipulation. The 'information-landscape' and the 'landscape-information' are not only metaphors but real objects as well as

place-holders for entities to come. In Vernor Vinge's novel *Rainbow's End*[6] the 'desert' is a new 'information-empty' area where no known services, but also where no other reading can happen:

> "Out in the desert, his car had departed almost immediately, stranding him. But by the time he got back to the road, another had pulled up. The devices were always moving. He imagined them circling the county, forever maneuvering so that no customer ever need wait more than a few moments. (…) This was the stuff of both poetry and futurism: Maybe at night when demand fell and they otherwise would have to sleep without profit in some empty lot, maybe then they conspired to clump together like Japanese transformer toys... to become freight trucks hauling cargo that was too big for UP/Express."

And by contrast, real landscapes, touchy-feely ones, are actively built by their users, so that no empty patch remains:

> "The hills above them were covered with iceplant and manzanita; ahead, there was a patch of scrub oaks. What do you expect of San Diego North County in early October? At least in the real world. The canyon was not a deadzone. Not at all. County Flood Control kept the whole area improved, and the public layer was just as fine as on city streets. (…) Its overlay imagery shifted into Hacek's Dangerous Knowledge world: The manzanita morphed into scaly tentacles. Now the houses that edged the canyon were large and heavily timbered, with pennants flying. High ahead was a castle, the home of Grand Duke Hwa Feen—in reality, the local kid who did the most to maintain this belief circle. (…) Without a complete localizer mesh, nodes could not know precisely where they and their neighbors were. High-rate laser comm could not be established, and low-rate sensor output was smeared across the landscape. The outside world knew only mushy vagueness about this area. (…) 'The gap will be fixed by tonight.' Around twilight, when aerobots flitted around the canyons, swapping out nodes here and there.
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> "'Well, why don't we help the county by patching things right now?'"

The short-story "Rogue Farm" by Charles Stross (2003)[7] brings up a 2060s scenario where self-growing farms wander around, squatting other pieces of land while growing to become their own, on their way to achieving extra-planetary expansion, rejected by lingering humans and their companion dogs.

> "'Too right I want to talk to it. If it's that one that's been lurking in the copse near Edgar's pond, I got some issues to discuss with it.' …The farm squatted, buzzing and clicking to itself, in the road outside Ermitage End. Joe eyed it warily from behind the wooden gate, shotgun under his arm. It was a medium-sized one, probably with half a dozen human components subsumed into it—a formidable collective. Already it was deep into farm-fugue, no longer relating very clearly to people outside its own communion of mind. Beneath its leathery black skin he could see hints of internal structures, cyto-cellular macro assemblies flexing and glooping in disturbing motions. Even though it was only a young adolescent, it was already the size of an antique heavy tank, and blocked the road just as efficiently as an Apatosaurus would have. It smelled of yeast and gasoline.
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> "Maddie says 'Get off my land' and points the shotgun.
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> "'I'm going! I'm going! …I only wanted to set you free to explore the universe. Nobody wants to buy my fresh fruits and brains. What's wrong with you people?'"

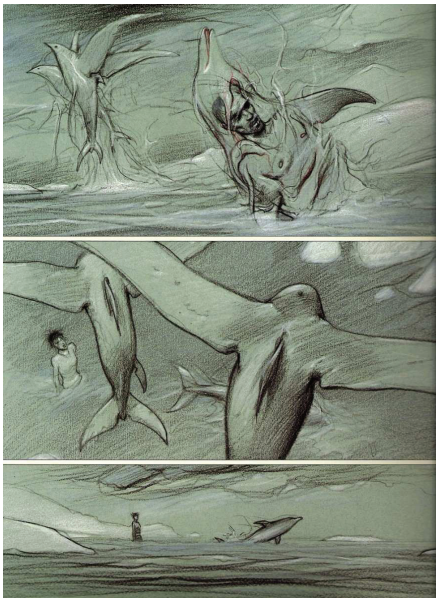

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Figure 2: Enki Bilal, "Animal'z"

This broader viewpoint of Nature and its scales of operation reveals ways in which our concepts of inhabitability have been invented- and via new encapsulations of space/time, we see entities emerge and correlate in unexpected ways. One useful model is the concept of *Hypersea*[8], explored by Mark and Dianna McMenamin, which suggests that life on land

developed and survived by creating a vast network of connections between unrelated organisms via the fluid that moves in us—in a way creating the equivalent of a suspended flowing sea on land. In a related example, in "Microcosmos"(9), Lynn Margulis and Dorion Sagan propose a history of the Earth seen from the perspective of the microrganisms that have inhabited it across its long history. Margulis and Sagan describe a possible concept and vision of larger scale organisms—including humans—as no more than shells that have resulted from the progressive topological folding of micro-ecosystems into sustainable environmental control for the survival of large populations. Through this lens, one can look at the human body and see the history of the Earth, by understanding how the biomes existing within us are in fact refugees of Earth's ancient environments, now encapsulated in spaceships [our living bodies]—and thus, safe from our current toxic [oxygen rich] atmospheres. In this sense, several organisms as we know them today may be no more than spaceships for older populations [civilizations?] with low or no resistance to Earth's current atmosphere.

The feedback cycles promoted by agents in ecosystems are in constant reinvention, spiraling in what only appears to be equilibrium, but is instead a slow frame in a process of co-evolution. We can apply these models to cities, and see how comparable they are to living, breathing organisms. In the "urban metabolism model of megacities", Charles Kolb[10] proposes that large cities can be viewed (and measured, analyzed and reframed) as "living entities that consume energy, food, water, and other raw materials, and release wastes". At larger time scales, models of reality appear as the more radical of fictions, as when mineralogy histories suggest new forms of life far from biology. In "My Grandson the Rock"[11], Robert Krulwich talks about findings by Robert Hazen and colleagues in "Mineral Evolution" that propose a very proportional (nearly symbiotic?) relationship between minerals (non-life forms) and forms of life.

> "We are, during our four score and twenty, a delicate package of water, organic chemistry and minerals held together, perhaps, by something like will. Then, when we die, we go ashes to ashes back into the ground and become minerals again until those same minerals get reorganized into plants, which get eaten by a cow that gets made into a Whamburger that gets eaten by a child who goes out and throws a Frisbee. I guess it's no surprise the two sides dance with each other. (…) the more life there is, the more rocks there are."

BODIES AND CREATURES IN/AS LANDSCAPES

These systemic concepts of bodies and their microbiomes are evidence of their status as landscapes or ecosystems—perhaps even 'spaceships', built on demand. The machine or assembly like character of these bodies follows but their character as 'media' is less clear. A revealing reading of this relationship can be found Jakob V. Uexkull's *A Foray into the Worlds of Animals and Humans*[12]. While looking for subjectivity in nature's creatures, Uexkull describes how operations, exchanges, and sequences happen through biochemical-machinic reactions between entities. He explains how chemical exchanges trigger near-machinic processes that strung together constitute a lifecycle, such as the famous example of the tick's 'umwelt' or 'lifeworld'. From these observations and inquiries we can reframe the biological as yet one more domain of the machinic, and see new potential roles of entities/creatures in assembled ecosystems that are profoundly intervened in by humans.The renowned scientist Freeman Dyson articulates what might be at stake in all this, in his text "Our Biotech Future" (2007)[13], forecasting the intertwining roles of biotech and human culture, naming it the hallmark of change for the 21st Century, after the 20th Century revolution in computation.

> "Domesticated biotechnology, once it gets into the hands of housewives and children,

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Figure 3: Mozchops, "Salsa Invertebraxta"

> will give us an explosion of diversity of new living creatures, rather than the monoculture crops that the big corporations prefer. New lineages will proliferate to replace those that monoculture farming and deforestation have destroyed. Designing genomes will be a personal thing, a new art form as creative as painting or sculpture. …Few of the new creations will be masterpieces, but a great many will bring joy to their creators and variety to our fauna and flora. The final step in the domestication of biotechnology will be biotech games, designed like computer games for children down to kindergarten age but played with real eggs and seeds rather than with images on a screen. Playing such games, kids will acquire an intimate feeling for the organisms that they are growing. The winner could be the kid whose seed grows the prickliest cactus, or the kid whose egg hatches the cutest dinosaur."

And this possibility expands well beyond the ecosystems of planet Earth, to become a vehicle/tool for extra-planetary expansion. In "Noah's Ark Eggs and Viviparous Plants"[14], delivered also by Dyson at the Starship Century Symposium in San Diego in 2013, a stark new concept of dwelling typologies is described.

> "Looking ahead fifty or a hundred years, we shall be learning how to use genetic information creatively. We shall then be in a position to design biosphere populations adapted to survive and prosper in various environments on various planets, satellites, asteroids, and comets. For each location we could design a biosphere genome, and for each biosphere genome we could design an egg out of which an entire biosphere could grow. It would be a miniature Noah's ark, containing thousands or millions of microscopic eggs programmed to grow into the various species of a biosphere. (...) The first species to emerge from a Noah's ark egg would be warm-blooded plants designed to collect energy from sunlight and keep themselves warm in a cold environment. (...) We would be the midwives, bringing life ...all over the universe, as far as our Noah's ark eggs could travel. …Two external structures make warm blooded plants possible, a greenhouse and a mirror. The greenhouse is an insulating shell protecting the warm interior from the cold outside(...) The mirror is an optical reflector or system of reflectors in the cold region outside the greenhouse, concentrating sunlight or starlight from a wide area onto the window."

The scarcity of resources we face in outer space may also be part of our future scenarios on Earth. And fiction writers can use the environment of necessity to explore deep changes to the nature of biological and cultural identity of entities as they find new pockets of survival (in space and time) in each other's systems. In "Animal'z" by Enki Bilal[15], humans co-opt discardable animal personas to better navigate the leftover environments and characters of a post-and-enduring climatic catastrophe—traversed by disarrayed, disorganized humans searching for potable water across pirated and unreliable transportation networks. Alongside Animal'z' high-tech insect and lobster companions, humans oscillate more than metaphorically between their frail, limited and degrading human bodies, and the environmental and navigational adequacies of their synthesized or artificial animal bodies—into and out of which they can slip, like garments. The alternation between the two bodies in Animal'z is not clear-cut, becoming more of a progressive merging into one of the species, which ultimately renders immortality as a irreversible fusion or submission with the (advanced) wild (speciation). When dealing with biotech, one quickly becomes aware of its sheer difference in scale from the concepts of ecosystems we relate to at the scale of human inhabitability or even human comprehension. For many biotech processes to take place, one harnesses the labor of a force which is extremely large in population—bacteria—and by doing so, evolving not only organisms, but forcing the evolution of entire civilizations of agents, and from there to organisms that may have human-engineered drives and performances. This means the selection and fostering of singular densities of performance which are invented by human minds and

concepts while deployed in biological, 'natural' structures or ecosystems. As well, this promotes an ever increasing blurring of the concept of Nature, and of the relationship between concepts of Nature and Culture. The concept of Species, and the practice of cataloguing we still find today in the naming of biological systems, are rooted in the 19th century drive to explore the new found diversity and finitude of the Earth. Similarly to Archeology and the desire to uncover and systematize the understanding of history, species taxonomies were the mode by which multitude and complexity in ecosystems were temporarily made sense of. The catalog identifies 'shells' of difference as places of extreme precision in the mediation of other processes- techniques by which the apparatus of perception and cognition have learned to identify bodies and organisms: roles of entity and identity.

THE LANDSCAPE OF LANDSCAPE

> "…we lack a Terra Britannica, as it were: a gathering of terms for the land and its weathers—terms used by crofters, fishermen, farmers, sailors, scientists, miners, climbers, soldiers, shepherds, poets, walkers and unrecorded others for whom particularised ways of describing place have been vital to everyday practice and perception. It seemed, too, that it might be worth assembling some of this terrifically fine-grained vocabulary—and releasing it back into imaginative circulation, as a way to rewild our language. I wanted to answer Norman MacCaig's entreaty in his Luskentyre poem: 'Scholars, I plead with you, / Where are your dictionaries of the wind … ?'"
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> —Robert McFarlane[16]

It is perhaps that our challenge is to devise new approaches to 'naming' that are both more pro-active and as well more agile in identifying and assembling together natural and artificial processes, since the natural and artificial are co-present in the formation of various entities that constitute what we would call the subject of many former disciplines. Our models still look at landscapes as hyperactive (over producing, wild) or dead (uncharacterized, disconnected from cultural or ecosystem value).The agenda for this century would be to understand how to reinterpret, represent and render legible the gradients still invisible, untouchable or unreachable, that are part of the 'matter' that constitutes our new 'fields'. As architects, by recognizing that the 'bodies' we work with are actually part of extended landscapes at very large and very small scales, we can propose new ways for architecture as a cultural agent to 'think' and 'work'- through what have historically been hidden landscapes. We can thus shift the mental/cognitive maps of populations, with the larger goal of creating new levels of awareness, intelligence and agency, and use architecture as a platform to manage or act culturally in the broader discussion about these landscapes. Put simply, we can bring the hidden spaces that form our most visible configurations (nations, regions, cities, biomes) back into public discourse and find ways of bridging across disciplines- including discourses on ecosystems, cultures and landscapes in our general practice. In this way we can understand networks and systems that generate but are also generated by entities, and—bringing our knowledge of media and digital networks as well as material assemblies—create ways of ways of allowing these body-processes to find or address each other, therefore inventing new types of active cataloguing and exchange. The continuing evolution of technology will have a key role in the formulation of new entities which shift our models of behaviors and limits of so-called natural systems and landscapes. This will allow us to develop proposals that connect or integrate various processes and thelandscapes they form—and with this expand the capacity of their realm as 'fields': creating more intelligent feedback between practice and field, which is crucial for these former disciplines.

ENDNOTES

1. "A Thousand Plateaus: Capitalism and Schizophrenia", by Gilles Deleuze and Feliz Guattari. Translated by Brian Massumi, 1987
2. See "Zero Landscapes in the time of Hyperobjects" by Timothy Morton in Graz Architectural Magazine 07, 2011
3. Bruce Sterling, *Shaping Things*, 2005
4. Peter Sloterdjik "Architecture as an Art of Immersion", Originally published as "Architecture also Immersionskunst. in *Arch+* 178 (June), 2006.
5. Denis Cosgrove, "Prospect, Perspective and the evolution of the landscape idea", in *Transactions of the Institute of British Geographers*, vol. 10, n1 (1985)
6. Vernor Vinge, *Rainbow's End*, 2006
7. "Rogue Farm" by Charles Stross, in *Live without and Net*, ed. Lou Anders, 2003
8. Mark and Dianna McMenamin, "Hypersea: Life on Land" (1996)
9. Lynn Margulis and Dorion Sagan, "Microcosmos. Four bilion years of microbial evolution", 1997.
10. See research by Charles Kolb at www.aerodyne.com
11. See Robert Krulwich article here: http://www.npr.org/sections/krulwich/2010/09/14/129858314/my-grandson-the-rock
12. Jacob, van Uexkull, "A foray into the Worlds of Animals and Humans: with a theory of meaning". See new edition with introduction by Dorion Sagan, 2010
13. in The New York Review of Books, http://www.nybooks.com/articles/archives/2007/jul/19/our-biotech-future/
14. Freeman Dyson, "Noah's Ark Eggs and Viviparous Plants", in Starship Century: Toward the Grandest Horizon", edited by James Benford and Gregory Benford (2013).
15. Enki Bilal, "Animal'z", 2010
16. Robert Mc Farlane, "The Word-hoard: Robert MacFarlane on rewinding our language of landscape", in *The Guardian*, February 2015 http://www.theguardian.com/books/2015/feb/27/robert-macfarlane-word-hoard-rewilding-landscape