SESSION ONE

electrorganicLandscapes[1]

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ABSTRACT

The spirit of this paper is the exploration and study of the integration between digital technology, landscape and architecture; and an investigation how technology, a re-defined vehicle, impacts the existing framework of our suburbs and cities, as the automobile did in the early 1900s. The evolving electronic and cinematic means for transportation shape space in much the same way the automobile shaped the layout of our cities. This 'vehicle', *the static one*, is digital. Very unlike the car and the highways, however, this digital device suggests a transparent infrastructure, having a catalytic impact on the status quo. The effect on quotidian life is potentially enormous. Popular cinema postulates a future where "real" space is a luxury, and existence is at the mercy of mechanized cyborgs or agents.[2] This author argues, however, organic space is not on the verge of obsolescence and simulated space is not on the cusp of being vogue. Instead, this static vehicle suggests a fluid landscape where technology becomes tangible; architecture is the backdrop; and the corporeal body is the modifier.

Within the framework of the explorations described in this paper, this ubiquitous layer of technology is defined as the tectonic filter or a membrane through which we perceive and experience. Our senses are amplified because of the interface with, what I will call, dataspace. With this understanding, the architecture and the landscape collectively are interchangeable components acting as the invisible framework, against which this tactile membrane is experienced, leading to a re-defined logic between architecture, landscape and the physical body. The matrix, the enclosure, is electronic.

Using a series of theoretical studies set in Detroit, Michigan, this paper examines this elec-tectonic relationship and suggests that the line separating the organic and the in-organic is hazy, encouraging larger margins for overlap and intersections. *seedlingmotors* and *re-/COMMUNITY* suggest post-urban worlds where the physical and electronic architecture/landscape is raw, fluid, permeable, and apocalyptic.

INTRODUCTION

This author explores and presents the exchange between the physical and the digital as amplified opportunities for new kinds of landscapes – ones that have no physical boundaries but, in fact, are in a constant status of flux, responding to the predominant cultural sentiments of the day. It is intriguing to imagine a world/landscape at the global, local, and metaphorical level that is fluid where technology becomes tangible and tactile and architecture, in the normative sense, is the backdrop. These technocratic ideologies are not new and, in fact, are parallel to the attitudes of Archigram in the 1960s. As Warren Chalk stated, their aim was to portray a new reality where the ideas are " a new vernacular, something to stand *alongside* the space capsules, computers, and throwaway packages of an atomic electronic age."[3] Peter Cook and others in Archigram questioned the role of technology and argued the necessary emergence of new kinds of architectural landscapes. The body of work by Archigram members is characterized by a definite futuristic quality, evidenced in Ron Herron's *Walking Cities* (1964) or Peter Cook's *Plug-in-City* (1964). However, as Kenneth Frampton suggests, "the commitment of Archigram to a high-tech, lightweight infrastructural approach brings them to indulge in ironic forms of science fiction, rather than to project solutions that were either truly indeterminate or capable of being realized and appropriated by society."[4] Frampton's observation delineates the end of the similarities between the projects described in this paper and the work/attitudes proposed by Archigram.

Although the projects described in this paper are speculations of a future landscape and existence, this author/designer believes in the feasibility/realization of both proposals. Because our bodies are material and tangible, it is possible to enhance the technological through the organic. We are very real and very present. Both design projects, *seedlingmotors* and *re-/COMMUNITY*, propose there is a blended territory between technology and life; between architecture/landscape and the human body. This new space suggests opportunities for amplified connections, both physical and electronic. Organic architecture/landscape melt together to become the backdrop; technology renders the physical transparent.

The Physical Setting

Detroit, Michigan is not a suburb but does exhibit curious juxtapositions of the urban and the rural. Because of a series of circumstances affecting Detroit beginning, perhaps, with the tumultuous and tension-filled time of the 1960s, the once distinct edges of the urban fabric have become increasingly difficult to read. Land, surrounding the city, once belonging to the agricultural community has been consumed and regurgitated in a perverse after-life identified by empty [meaningless] descriptions, such as Rolling Pines Estates or White Oak Place. Territories which used to be filled with centers of industry and commerce within the city edges have imploded, leaving holes or gaps, influencing the state of a reverse entropy, where the city is deteriorating from the inside-out. The remains of a once-great city lead to a sort of industrial residue. Hulking shells of masonry with steel skeletal systems stand silent as if waiting for the next life. Seedling trees, without the benefit of maintenance, have flourished for four decades or more and now tower in areas once belonging to the factory. Pheasants and prairie grass populate ghostly remains of once stately neighborhoods as the Detroit urban landscape returns to nature. Grassroots communities have begun to take root where individuals are beginning to farm their land in almost ridiculous proximity to the shiny buildings of the Central Business District.

In *Making a Middle Landscape*, Peter Rowe talks about the merging of urban and rural landscapes in the formation of suburbia and proposes an augmented vision for a modern pastoralism. On the one hand, he says, "we have the powerful image of Thomas Pynchon's printed circuit crisscrossing a valley landscape (in other words, a place dominated by flows of information rather than place) and, on the other, we have Thoreau's primitive hut out of the wilderness. By avoiding such extremes, we can establish a more complex and inherently interesting equation between pastoralism and the modern technical temperament, one that can be used to critical advantage. The machine must be able to qualify the garden and vice versa. It is the emergent dialectical relationship that is of interest, not simply the terms themselves. However, the task still remains to put the machine in the garden, or, if we choose to come at it from the other direction, to put the garden around the machine."[5]

Because of the unique setting in Detroit, there is the possibility to re-examine the notion of the machine in the garden. This author suggests the necessary engagement of the physical architecture with its setting can be transformed by and extended with permeable transparent layers of digital technology, and then collapsed or merged, presenting a compelling proposal for a different kind of elec-tectonic landscape. As this threshold between city and non-city grows increasingly wider and hazier, a new kind of threshold becomes possible, perhaps a hybrid territory that occupies the intermediate dimension between the real and the imagined; between the organic and the electronic.

Detroit's urban condition is provocative and evokes Bladerunner-esque imagery. The parallels between the direct physical impact of the automobile in the past and the network overlay of digital technology of the present are almost startling. What is interesting to note is a little known fact linking Henry Ford I to the development of paved roadways. Ford instituted the "seedling mile" where he selected one-mile strips of the worse conditions of roads and had them paved, forecasting the future possibilities of roads to come. 1908 and 1909 saw concrete, ultimately the solution for all paved roads, used on a county road in Detroit, Michigan. Success was an aphrodisiac. Neighborhoods with bigger and more expensive houses continued to develop further and further from the city's core, necessitating more roadways and expressways. A web of overpasses, service roads, mile roads, and freeways became the threads of this new fabric of the city, choking the life out of old neighborhoods in the spirit of progress.

With the ubiquity and integration of digital technology and the idea of a transparent infrastructure, the condition of space and place can be examined. Historically, city to city connections via the interstate were measured in both time and distance. As cities become increasingly de-territorialized in physical space, concurrently with an equal level of connectivity through dataspace, the idea that space itself is more about travel versus inhabitation in a normative sense suggests a new network of tangible and intangible intersections between architecture and landscape. The vehicle enabling hyper-movement enhances the individual. Just as the automobile empowered the body, the questions here are 'how does the electronic vehicle empower not only the user, but the bystander as well? And, where exactly is that threshold between the physical and the digital?'

IN SEARCH OF THE ELEC-TECTONIC: SEEDLINGMOTORS + RE-/COMMUNITY

"...with the disappearance of the architectonic to an electronic means of creating space, we will live everywhere, simultaneously."

—Paul Virilio

Both design projects described here grew out of discussions beginning in 1994. The Internet was just beginning to become more mainstream. Widespread speculations and predictions for the future suggested a digital present, where virtual experiences superseded physical realities. Most embraced this e-movement, while others pessimistically predicted a bleak future where human interaction would cease and we would all be "wired for living." Paperless studios and offices were offered as the direction for the future. E-commerce and e-money

were going to be the new economy. An e-topia[6], as coined by William Mitchell, was going to take over life as we knew it.

At the time (and currently), this author believed in a more optimistic view of an e-topian landscape. Virilio's statement captures the prevailing opinion in the early 1990s. Within the current context of 2001, his projection for what the future held seems naïve, and perhaps, too big. Throughout history, advancements in technologies, from the horse and carriage to the horseless carriage to telephones and airplanes, have been met with a certain amount of trepidation as well as uneasy acceptance. It is easy to make projections for a fantastical future based on all we do not know. By no means does this author suggest that all the questions have been asked or even that the ones asked have been answered. The design projects presented here in this paper represent questions and thoughts spanning nearly a decade of development and progress. *seedlingmotors* and *re-/COMMUNITY* only suggest possible first steps. The genesis of these design projects, both theoretical studies by this author, began with a series of questions, establishing the framework for investigation.

1. What happens when the gap between the physical and the electronic is blurred, giving rise to a new hybrid territory? What is that territory and how can it be defined?
2. How will digital technology as the new vehicle impact the urban fabric of architecture and landscape?
3. What is the relationship of the body as a physical presence to technology as a transparent one?
4. What are the possibilities when technology is merged with tectonics resulting in a tangible membrane through which we perceive? What is the garden? And the machine?

seedlingmotors

seedlingmotors's physical architecture is an industrial warehouse typology, articulated as a series of towers elevated on pilotis piercing an articulated ground plinth. Daring to defy the "edge" and cross it at an urban scale, the towers are perched precariously on the freeway retaining wall as witness to the artificial river of automotive travel. Underneath the ground plane are multi-bay incubator spaces for entrepreneurial pilot industries that eventually move out into the community, enabling another venture to take its place. The cyclical relationship between the architecture and the landscape is magnified and strengthened as seedlingmotors acts as a reverse catalyst, empowering and rejuvenating neighborhoods one block at a time.

seedlingmotors provides a technology/information - based community at the intersection of I-75 and Woodward Avenue in Detroit, Michigan. The project engages the city along two of its major axes: one which built and reinforced the city (Woodward Ave) and one which divided it (I-75). By blurring the edge of the highway with new construction, the territory is reclaimed, metaphorically bridging the highway and extending the city's boundaries. The project itself is organized as a pedestrian scaled, mixed-use urban community. The recreational node, along Woodward Avenue, provides experimental theatres and dance clubs and cafes. It extends the theatre district across I-75 and becomes the new 'gateway' to the downtown. The production zone at the northern edge of the site provides multi-bay spaces for entrepreneurial individuals. At the southern edge of the site, with a view to the city skyline, the residential zone includes a series of linear studio/housing towers. They are 'ware-houses' with tele-networking facilities locally as well as globally through the Internet. The community becomes both technologically and physically interlinked serving as a support network to investigate and develop business opportunities.

The complexity and flexibility brought about by technology opens up a way of overcoming the concept of the ground as simply a tray upon which buildings are placed. In seedlingmotors, the ground plane is de-laminated as a hardscape layer - - an artificial ground plinth supporting, both figuratively and literally, the seedling towers above. The business zones located within the earth exist both because of the urban condition and in spite of it. The spaces below the articulated ground plinth are defined by multi-bay spaces for light manufacturing and/or technology based industries, run by the residents of seedlingmotors, eventually moving out into the community after an incubation period. A new topography is inscribed in the urban context; one which is both about the physical state of being as well as a portal to a border-less place, described as the matrix. The organic and the electronic both flow in a continuous line, completing each other and filling all the gaps. The landscape itself becomes the architecture.

Because of the increasing levels of superconnectivity and the endless buzz of email, cellular phones, PDA's, wearable computing devices, the places for interchange between people take on new meaning. Nodes exist alongside the networks. Territories are becoming de-materialized and yet we are connected in more ways than before. seedlingmotors describes a condition where the movement through the elec-tectonic landscape is fluid. The idea of meeting at the coffeehouse to interact with other individuals takes on an entirely new meaning. Because of the seamless interface between the digital and the physical, the margins between the real and the imagined are diffuse, always evolving and changing. Because of the ability to dissolve into the margin between organic and in-organic, collective activities take on new meaning. The town square is re-born as the new information square.

It is important to note that this author's premise about the integration of technology is not to suggest a virtual environment or themescape. Our bodies are not virtual. The real power is in that we

are immersed in a total experience, enhanced by this hybrid electrorganic territory.

What is also intriguing about the concept behind seedlingmotors are the opportunities for both tangible and intangible intersections between the architecture and the landscape, at both a macro scale as well as at the micro-scale of the human body. Our bodies become the filter or threshold through which we experience this brave new world. Our senses are amplified because of this electronic layer through which we metaphorically pass. This threshold is what is of interest here, as it defines a zone of suspended disbelief, where inside is outside, physical is digital, form is form-less. The root of the word "matrix" is womb and is defined as "an enclosure from which something originates or begins."[7] The matrix describes the spatial condition of this hybrid threshold; it is electronic and tangible. It is a blended territory between the organic and the electronic, between technology and life.

re-/COMMUNITY

re-/COMMUNITY, as a prototypical environment, suggests that the warehouse/HOME is the map for a post-industrial landscape. Like seedlingmotors, the relationship between the abstract and the tangible, the garden and the machine, are tested, explored, exploded – leading to a transformed reading of the environment at both macro and micro scales. Architecture as a physical manifestation takes on a different meaning as that which is tangible within an electronic setting. Where seedlingmotors examines landscape with architecture at an urban scale, re-/COMMUNITY explores this idea of landscape and architecture at the scale of the house, where wearable manifestations of technology suggest a new blueprint for living. The body is architecture is landscape is electronic.

Based on the style of industrial architecture originally developed in Detroit, the living warehouses are simplified to structure, services, and skin. A steel and concrete structure provides the endurance and flexibility required to withstand an evolving urban environment. The raw space inside blurs the distinction between home and work space, allowing any range of activity to take place. The open facilities available to the community are intended to facilitate the transition into an effective live/work lifestyle. The warehouses provide a backdrop for the super-juxtaposition of the dynamic, ever-evolving labyrinth of life. The architecture becomes an extension of the body where walls become skins. On the north side, a fortified concrete edge houses the mechanical, electrical, and technological infrastructure, with the remaining skins acting as diaphanous layers wrapped on a steel skeleton. Screen walls deliver a constant stream of information as well as accept communication from the inhabitant. The transfiguration of a normative door into the dataspace within the circuit boards of our electronic devices acts as a threshold between the real and the imagined. The containers for living dissolve into the background as the technology is made tactile - - a hypersurface allowing the intersection between the electronic and the organic.

In the warehouse/HOME, the architecture is the meeting ground between the body and technology. The local landscape of the human skin is amplified and extended by the electronic devices within the domestic space. Like the knight in his suit of armor, the individual wears his/her house. Spaces for living and working become blurred and indistinct from each other. The margins between the body and the architecture become hazy. The result is a sort of hybridization of space, place, and time. The house becomes a technologically extended organism, defined by the inhabitant. It becomes a living system.

The warehouse/HOME in re-/COMMUNITY is a prosthetic device for its inhabitant. The architecture itself is an extension of the body; its edges wrapping the figure inside, just as the fetus is wrapped in the womb. Returning to the root of the word "matrix", this local landscape is the originator; it is the beginning - - the threshold to the hybrid territory. Like seedlingmotors, the opportunity to re-define the notion of the door as the wall that melts into the dataspace suggests a fluid and apocalyptic world. The container for living dissolves into the background as the body is amplified through the interaction with the zone located somewhere between nature and artifice.

THE MATRIX: REVISITED *[OR A PROLOGUE FOR A POST-ORGANIC FUTURE]*

This paper has explored and presented the exchange between the physical and the digital as amplified opportunities for new kinds of landscapes. It is intriguing to imagine a hybrid domain, existing somewhere in that middle ground between dreams and reality. *seedlingmotors* and *re/COMMUNITY* speculate an apocalyptic landscape augmented by digital technologies, leading to a re-defined Detroit context. The imminent condition of space and place-lessness offers the possibilities of more physical connections than before. The vacuous dystopia, the suburbs, will become obsolete and this middle ground will be re-defined and experienced as a magnified threshold. The zone is physical is electronic is fluid. Information will be disseminated, digested, and re-born. This electronic-scape is dynamic, existing because of the human element; unlike the current highways, existing in spite of the human element.

The physical body enhances the invisible yet tactile electronic cloak as we occupy a hazy space made possible by digital infrastructures. The fact we are, in fact, sensual beings offers opportunities for transformed sensations of touch, of sight, of taste. The notion of house as a prosthetic device, parallel with the dataspace, will continue to amplify the relationship between architecture and landscape at both

a localized scale of the human body and at a global scale as machines in the garden. The question here is what is the machine? Is it the architecture? Or do we, enhanced by digital interface, become these instruments? As Peter Rowe argued, *" it is the emergent dialectical relationship that is of interest, not simply the terms themselves.* However, the task still remains to put the machine in the garden, or, if we choose to come at it from the other direction, to put the garden around the machine."[8] This author suggests that Detroit continues to evolve in reverse, emerging as the electronic landscape where technology becomes tangible; architecture is the backdrop; and the corporeal body is the modifier. The garden is the matrix. And the future is an electrorganic landscape.

NOTES

[1]electrorganicLandscapes, a word originated by this author, describes a body of research initiated during post-graduate study. The term is not intended to be all-inclusive, but, rather, encompasses investigations of digital interface with physical membranes, of the human body as metaphor for architecture, and of craftsmanship enhanced by technologies. The merging of the electronic + organic describes a condition which this author believes to be a map of the future landscape at both macro and micro readings. Currently, explorations have been realized through original theoretical studies accompanied by reflections as a post-analysis mechanism, leading to the next set of questions.

[2]What I refer to here are popular movies such as *The Matrix*, where questions of what is real versus what is in the mind form the basis for the plot. In *The Matrix*, the Agents, hyper-human beings with an ability to morph and assume different physical characteristics, seek rebels who dare to tamper with the system and eliminate them. Reality, as it turns out, is not what one believes and all that we experience is contrived and manipulated by an intricate network of technology and infrastructure. *RoboCop*, another futuristic science fiction thriller, presents a highly mechanized, fine-tuned cyborg human whose mission is to fight crime in an apocalyptic grim world. Others such as *BladeRunner, The Fifth Element, Total Recall*, among others all offer post-urban settings with similar structure.

[3]Warren Chalk, 'Architecture as Consumerist Product'. *The Japan Architect*, 165, 1970, p.37

[4]Kenneth Frampton, Modern Architecture: A Critical History (New York: Thames and Hudson, Inc., 1985), 281

[5]Peter Rowe, Making a Middle Landscape (Cambridge, MIT Press, 1991), 250

[6]William J. Mitchell, dean of the Department of Architecture and Urban Planning at the Massachusetts Institute of Technology, authored the term "e-topia" in describing the condition of electronic interface. He published a book, entitled *e-topia: Urban life, Jim, but not as we know it"* in 1999.

[7]The American Heritage® Dictionary of the English Language, Fourth Edition (Houghton Mifflin Company, 2000)

[8]Peter Rowe, Making a Middle Landscape (Cambridge, MIT Press, 1991), 250

REFERENCES

Crary, Jonathan and Kwinter, Sanford, editors. 1992. *ZONE 6: Incorporations.* New York: Urzone, Inc.

Flink, James J. 1970. *America Adopts the Automobile.* Cambridge: MIT Press.

Frampton, Kenneth. 1985. *Modern Architecture: A Critical History.* New York: Thames and Hudson, Inc.

Herron, Jerry. 1993. *AfterCulture: Detroit and the Humiliation of History.* Detroit: Wayne State University Press.

Kamper, Dietmar and Wulf, Christoph. 1989. *Looking Back on the End of the World.* New York; Semiotext(e).

Marras, Amerigo, editor. 1999. *ECO-TEC: Architecture of the In-Between.* New York: Princeton Architectural Press.

Rowe, Peter. 1991. *Making a Middle Landscape.* Cambridge: MIT Press.