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Conflicting Systems:
A Mediation of the Natural, the Man-Made, and the In-Between

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ABSTRACT

Conflicting Systems:
A Mediation of the Natural, the Man-made, and the In-Between

by

James Eric Phillips

Architecture and the conceptions of urban and rural space have been drastically transformed by the continuous expansion of the man-made into the natural rural landscape. The collision of man-made and natural environments come together as a continuous overlay of conflicting systems. Complex fields are thus formed, creating systems of “in-between” landscapes that blur the boundaries between the natural and the man-made.

The acknowledgment that inhabitants are continually within the city calls into question how society visualizes, constructs, and uses their surroundings. The “in-between” landscape has given way to the possibility of dismantling the common ideas of urban and rural in order to formulate a new type of hybrid landscape. The landscape proposed here, an Environmental Park, becomes a highly interactive field of natural and man-made systems that communicates new ways of thinking, making, and building within the natural, the man-made, and the “in-between.”
Those who survive for many years outlive
The landscape that they knew which fades and flies......
TO JENNY
You are my foundation for life.
Your open ear, hard work, love and continuous support allowed me to fulfill a dream and for this I owe you the world.

AUTHORS NOTES
The task of producing this document has been approached in the same way as I tackle all architectural propositions. That is, I begin by articulating the inherent problems that arise from critically evaluating the project parameters. I then worry about them, criticize them, lose sleep over them, become intimate with them, and through this process come to grips with their possibilities. Thus, Architecture is always about intuition and the initial feelings that allows the memory of certain experiences to construct and manipulate the work.

The people who have worked with me, both directly and indirectly, on this project should all share a particular pleasure in knowing that their participation was inherent in the thinking through of this project. First and foremost, I would like to express my deep gratitude to Albert Pope for his talent, energy, commitment, persistence and vision, without which this project could not exist. A special thanks to Elizabeth Gamard, John Casbarian and Lars Lerup for their support and provocative criticism. To Carter Smith whose knowledge of and love for the Katy Prairie helped to inspire and realize the potential of this project. I must also thank Michael Nett, a friend and colleague, whose simple words of encouragement, while unknowing to him, helped me to realize the importance of following your heart and dreams. To all my classmates who helped critically evaluate the potential of ideas. Lastly, a thanks to my family for their unconditional support.
CONFLICTING SYSTEMS:
URBANIZATION AND THE MOVE TOWARD METROPOLITAN REGIONS

The urbanization of America not only changed the distribution of population within a society; it also transformed and continues to transform many patterns of social life. From the early settlement of St. Augustine, Florida in 1565 to the reconsideration of urban forms during the industrial revolution, to the privatization of corporate and residential enclaves of the nineteen-hundreds, the urbanization of society has forever altered the American landscape. Planned communities, urban center, strip malls, and office parks have all contributed to the "urban sprawl" that has propelled to the vast expansion of urban areas into the once natural rural landscape.

Cities are a relatively recent development in the overall course of human history. For most of our history people lived in small groups that survived by hunting animals and gathering vegetation in the wild. While some migrating groups of hunters and gatherers periodically returned to favored locations, few settlements were occupied permanently.

THE AMERICAN CITY

Although native American Indians have lived in North America for tens of thousands of years, they established few permanent settlements. Cities in North America were a direct product of European colonization beginning in the sixteenth century. The Spanish made the initial settlement in St. Augustine, Florida in 1565, and the English founded Jamestown, Virginia in 1607. Both settlements remained quite small in their early developments. However, in 1624 the Dutch founded New Amsterdam. Now referred to as New York City, the settlement originally marked the first example of American urbanization. Today, the United States is one of the most urban societies in the world. The corporation-based economy, national political system, global marketing, mass media, college and universities and most other elements of American life are largely based with 'metropolitan areas.'

The beginnings of this incredible transformation of the natural and 'wild' landscape into an urbanized 'civilized' landscape are founded in the early colonial era with the settlements mentioned previously. American urban history began as European explorers arrived on the eastern edge of a vast, unknown territory. In the earliest stages of settlement New Amsterdam and Boston, Massachusetts were only small villages resembling medieval European cities. Still evident in the downtown areas of both cities, narrow winding streets marked the beginning of urbanized areas. By the final decades of the seventeenth century, cities such as Philadelphia, Pennsylvania began to adopt a street pattern based on a fundamental grid system to facilitate rising commercial oriented activities. One must only look at the street patterns of downtown Manhattan in contrast to downtown Philadelphia to realize the spatial impact economic activity played in organizing evolving cities.

American cities grew slowly during the seventeenth and eighteenth century, remaining small enough to allow close nit communities and organizations. In 1790, the governments first census counted roughly four million Americans, of which only 5% were considered to be living in urban places (U.S. Census Bureau). America, while considerably different from its original condition, was and would remain primarily a rural based society until the nineteenth century.
in the early nineteenth century, new cities were formally established all across the nation. The urban expansion was a result of the development of early transportation routes that opened up "the great wild west." By mid century, urban areas were beginning to dominate the American society. Industrialization and the move toward urban areas and urban ways of life had reconstructed the American landscape. Thus, by the beginning of the twentieth century the idea of a "metropolis" had emerged. The city had become the center of commercial, manufacturing, and residential life.

Much like European nations, the wealth produced by industrial technology and vast economic growth was concentrated among the industrial elite. Millions of citizens lived in poverty as industrial cities faced massive shortages of housing. In reaction, people began to cluster together in tight isolated quarters altering the way of living and redefining how cities would grow for the next quarter of a century. Dense city blocks dominated urban growth until the mid-part of the twentieth century when urban life dispersed into decentralized metropolitan regions.

The economic boom that followed World War II placed the single family home at the hands of most Americans and undermined the idea of urban living. Due to the fact that many urban areas across the nation contained little space for new housing, suburban areas outside the city began to flourish at an astronomical pace. Using government funded organizations to sell the idea of non-urban spaces, planned community developers, in conjunction with the idea of Garden City movements, redefined the idea of community and in turn the idea of city. Urban and Sub-Urban, Inner city and Outer edges, Center and Periphery all became a new way of speaking about the places where people worked, played and lived.

During the same time as inner city populations dispersed to the suburbs another population shift was occurring in what became known as the move from the "Snowbelt" to the "Sunbelt." Just as the twentieth century opened with tremendous growth in the north and northeast, the later decades of the twentieth century encompassed the continuous growth of the south and southwest. Cities such as Los Angeles, California, Phoenix, Arizona, Dallas-Fort Worth and Houston, Texas, bound by few
or no geographical features and no urban 'baggage' simply expand. Successfully annexing surrounding towns and communities, Sunbelt cities have enlarged tax bases and revenues enabling the cities to become financial strongholds in both the regional and global markets.

This vast expansion marked the evolution of a new type of city. In the early 1960's, French geographer Jean Gottman first used the term "Megalopolis" to designate a vast urban region that contains a number of cities and suburbs. Since this time Sunbelt cities have redefined the scale of Mr. Gottman's megalopolis. Houston, Texas for example, now covering over 850 square miles has become a region composed of multiple centers, hundreds of suburban communities, and many independent social, political, and economic systems. No longer conceived as a simple center to suburb relationship the city of Houston has become a METROPOLITAN REGION. Never completely urban and sometimes inconspicuously rural, the city of Houston forces inhabitants, to quote Paul Virilio, "to abide forever within" the metropolitan area. I use the term 'metropolitan' to literate the non-urban nature of a city like Houston. No longer set up as an urban vs. rural, the idea of 'metropolitan brings about a much more vague conception of physical space. The term GMA or Greater Metropolitan Area for example exemplifies the uncertainty of the encounter. Where is this area? Can it be defined in physical and/or spatial terms? In the metropolitan region the idea of urban is almost completely eliminated in an attempt to redefine and understand a new type of condition. A condition composed of a broad mixture of urban and rural superimpositions, where entire spatial regions take on the notion of a city, the post-industrial city.

The post-industrial city, no longer confined to industrial needs and desires, has embodied the age of information as the space of the city has become in many respects - virtual. Isolated moments confined and replayed by individual memories and experiences now defines the 'center' or the 'heart' of the city. The new city requires no physical center to establish an identity. Identity is established through the multiplicity of its composition and the cities ability to illicit new ways of perceiving space, form and experiences.

The work presented in this volume sets out to address three interconnected and parallel issues by exploring ways of working, designing, and transforming moments in the metropolitan region. Firstly, the work presented here is about "thinking," in so far as it demands the elaboration of critical thought as an inseparable element of both the design process and the transformation of urban and non-urban forms. Secondly, it is about "making," in that is argues that architectural interventions are inextricably linked to making and communicating new types of urban conditions and metropolitan moments. Thirdly, it is about "building," is so far as it continually affirms that architectures importance resides in its ability to envision and construct new spaces and events that may redefine and/or transform societies perspective on the city.

In a city dominated by space, architectural projects propose potentials for new spatial events, implemented by new non-urban forms. The dramatic and sometimes extremely violent changes that mark our current era gives way.
order to transform human environments. At the least, in demands that architecture must propose programmatic elements outside the typical building 'programme' to account for ideas and beliefs for which the architect, not the client, is responsible.

In 1986 the city of Houston, Texas purchased a plot of land twenty-five miles west of the downtown area for the possibility of a future airport. The site located at the heart of the Katy Prairie, an irreplaceable natural resource of wildlife and plant ecologies, brought about controversy to an otherwise simple land purchase. Noted as a "Biosphere of International Significance" by the United Nations Environmental Program, the Katy Prairie rallied a large support following of environmentalist and west Houston natives. Also essential to the debate was the proposal for the Grand Parkway. This parkway, the fourth in a series of 'loops' that surround the city, would require the development of thousands of acres of native Texas landscape and perpetuate the destruction of enormous amounts of ecological and biological systems. Together, without proper thought and consideration the two projects could destroy over half of the remaining prairie landscape.

While environmentalist continue to fight against the developments, both projects at the time of this research were on hold. Meanwhile, organizations such as the Katy Prairie Conservancy, a nonprofit group founded in 1992 to preserve portions of the prairie, continue to work with land owners, developers, hunters, conservationist, and residents to save prairie and wetland habitat. The conservancy's goal is to acquire land through purchase agreements and/or conservation easements in order to assure that valuable nature habitat goes unharmed. In the end the Conservancy, lead by biologist Carter Smith, hopes to obtain a minimum of 10,000 consolidated acres. This amount of acreage will ensure that the environmental systems continue to grow and prosper. At a scale of 10,000 acres the land obtained could be completely surrounded by urban expansion and continue without substantial depletion. While larger acreage would be better ecologically, the conservancy realizes that stopping the demand for planned communities, mini-malls, and office parks is inevitably impossible. There focus in turn attempts to use developers donations and/or legal obligations to construct a home for the Katy Prairie that protects habitat and supports a valuable resource of research and education.

The project that follows addresses the issue of the Katy Prairie and the proposed general aviation airport head-on. Accepting the fact that both the Grand Parkway and the airport, while environmentally disastrous, will more than likely be built in the name of continuous progress, this project proposes that the architect define a new role in the profession. The architect as mediator, working with environmental groups and developers the architect helps to formulate a solution that was not considered prior to his/her involvement. By using a 'real' project with intense social, political, and environmental issues architectural research moves beyond abstract ideas and notions. Here the city is literally a 'laboratory of research' and the issues tackled not only formulate the potential of new urban form, but establishes a way of thinking and building that would not only affect the city of Houston, its inhabitants, and its wildlife but the entire gulf coast region.
"Do you know why you are in the city? .... 
.... time had collapsed and I became this person and I felt the experience. 
.... My vision of these things, my experiences of this globe 
.... a collapse of place, of space; the globe, the city..." 

- author unknown
METROPOLITAN MOMENTS

Over the course of the last twenty-five years, the urban landscape has been drastically manipulated by the rapid growth of our cities. Cities such as Dallas-Fort Worth, Minneapolis-St. Paul, Los Angeles, and Houston have outgrown the traditional idea of city, thus moving into a scale that is better defined as a metropolitan region. This spatial change has been so rapid and dramatic that many inhabitants of the city have become unaware of the new city. Due to this, other cities throughout the world have continued to follow suit, allowing the ideas of economy, trade, and information to blur the visualization of urban, sub-urban and non-urban growth.

The distortion that has been brought about by urban growth exemplifies the extremely turbulent period of perpetual and drastic changes which have taken place in the past several decades. Societies somewhat invisible and disengaged mind set toward the urban construct has become an inevitable presence that all cities must begin to address. Fundamental attributes must be drawn from the city so that a new foundation of human thought and awareness can be conceived and implemented.

The new foundation I speak of must be based on the assumption that the study of the post-industrial city or the "open city," more than ever, is a matter of architecture. Research within the open city must now question how to think of architecture and urbanism beyond the standard assumptions of centers and suburbs. The complexity of the urban condition must be articulated in a way that addresses three interconnected and parallel sets of questions. First, what constitutes the physical form/s of the post-industrial city and how is that analyzed and revealed; the second, what constitutes the role of the architect in forming and dealing with the city; and third, how do ideas of the physical and perceptual city exert influence, illicit conviction, and grow into an architectural expression that establishes a way of thinking, a way of making, and finally a way of building within the "open-city."

The post-industrial city, existing at a scale and dimension far greater than simple A to B relationships or experiences, demands more from our perceptual abilities of memory and imagination. Direct and sequential experiences that allow us to measure traditional urban situations and relationships are unavailable in the open-city. Time and space relationships have become separated, continuity has become imperceptible, and the physical movement of the body and spatial interpretation of the mind need no longer work together. Due to these factors, physical movement through a city such as Houston, Texas (typically at a high rate of speed by way of the automobile) forces the mind to take a secondary position, absorbing and blending information; waiting for the moment when the city and the body become static, frozen, and fixed.

The moment at which the body seemingly becomes static and the mind takes over the primary position has become a new type of experience in the city. Objects, spaces, people, and moments are removed from that which preserves or houses them (the city, the suburbs, the home) becoming something new that is remembered and imagined. The mind, like a guide book, pieces together the city in a way that cannot be physically obtained, continually maintaining some type of reference point or datum that is "real" and/or "familiar." Isolated images, "Metropolitan Moments," become removed, autonomous and frozen in our minds. Events (urban, sub-urban, and non-urban) become something new in the city - Individual and Self referential - Virtual and Imaginative - Contrasting versions of the same reality.

The scrapbook, usually considered an element of the individual as a container of personal moments and events must now become a component for the collective. Here, the "metropolitan scrapbook" does not close or unify specific memories, but rather opens and disperses its contents. Photography becomes a means of recording and tracing the act of traveling, both physically and mentally through the city. The scrapbook is not a representation of the city but rather a series of objects that register the impression of the city in the mind. Once remembered the images become ideas, memories, and conceptions awaiting a new type of event:

Architecture, Drawing, Design, Theory, Story Hour,

METROPOLITAN MOMENTS
The Lakes at 610. South Houston, Texas. The combination of seasonal ‘downpour’ rains and the fact that the city is of Houston is built on a swamp leads to the need for large bodies of water to be constructed in order to accommodate overflow.
The Lakes at 610. Tucked away and surrounded by a series of deserted lots, office parks, and multifamily housing, the 'man-made' lake attempts to become a place to go and to be in the city. Fractured and removed from its immediate surroundings, the 'Lake at 610' is not a place to be but rather a fictitious name given to evoke images of a more natural landscape.
Dead End Dump Site, Buffalo Speedway, South Houston, Texas. Located only minutes from the Houston Medical Center and the Astrodome area the street system is cut off by the natural landscape. The typical urban condition begins to deteriorate into the natural landscape leaving behind a left over space of nonconsideration.

METROPOLITAN MOMENTS

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Dead End Dump Site. The moments at which the natural interjects the man-made continues to fail into question. Fractured and unrealized the event of the encounter is ignored as the 'Dead End Gate' becomes a symbol of an urban event yet to be embodied or realized.

METROPOLITAN MOMENTS

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Typical 'Planned Community.' Houston, Texas. Noted as one of the greatest alterations of urban form this century, the planned community virtually eliminated the urban grid system. Eliminating all types of through traffic and connections with the city, community planning became a means of separation and segregation.
Typical 'Planned Community.' Initiating spatially autonomous urban forms in the landscape, the planned community becomes routinized diagram of spatial and social closure dedicated to the protection of government funded institutions, the detached dwelling, (Pope, 163-65) and the "American Dream."
Highway Interchange, Southwest Houston, Texas. The highway gives form to an otherwise formless urban landscape. Colossal feats of civil and structural engineering/development solidify into magnificent sculptures of steel and concrete that seem to celebrate speed and our desires to move within it.
Rearview Mirror, Nissan Altima. Often caught only in the rear view mirror, the power of the 'open city' lies in the memory of occurrences. Space becomes a camouflage to the dynamic systems that manipulate and transform the urban realm. Images left behind are a viewed a second or third time as they seem to move slower. The image of the mirror becomes a second glance to that which was overlooked.
Almeda Road, South Houston, Texas. The city is transformed at night. Objects seem to move faster, nothing seems to be static. Cargo trucks, helicopters, street lights, automobiles, airplanes, neon signs, stop lights all become beacons of light moving by you, behind you, in front of you, through you.
Highway 45, North Houston, Texas. Movement through the city at night becomes a different type of experience. Contained within the isolation of the automobile, the body propels through space. Images are distorted, perception is limited, and the mind no longer has the ability to capture an individual moment. The entire process of moving becomes a blur of collapsed light and sound.
Subdivision, South Houston, Texas. Removed and autonomous, subdivisions scatter across the natural Texas landscape. Taking up valuable natural land, planned communities fabricate a new landscape of controlled and segregated environments.
Multiple Overpass, Near Downtown, Houston, Texas. Composed of multiple layers of development, Man-made systems overtake parts of city. In turn, isolated landscapes are formed separated from other landscape they become derelict and forgotten.
"Un" Expected - The not to be expected is exactly what you get in a city such as Houston. Hailed recently as the soon to be 3rd largest city in the United States, Houston is not what one would expect in the traditional sense of a city. Fragmented and dispersed, Houston has become a "un" urban place.
Signs, South Main Street, Houston, Texas. Main street, once the center of city life, has become an iconic image of consumption. Visually dominated by images of fast food restaurants, gas stations, traffic lights, electrical wires, run-down hotels, divided roadways, and R.V. camps, the streetscape has erased all memory of the natural landscape that preceded it.
The Lake on Post Oak, West Houston, Texas. In a city with few 'natural amenities,' man-made experiences become invented nature. Manicured lawns and Aqua-blue lakes transforms this endless field of office buildings, town homes, shopping centers, and highways into a new type of space: Synthetic space.
Chemical Plant, East Houston, Texas. In the early part of the twentieth century, natural waterways were overtaken by the large scale development of the Houston Chemical Industry. In turn natural systems became cluttered and neglected in the name of 'progressive energy development.'
Skywalk, Downtown Houston, Texas. Connected by an elaborate system of sky-walks and underground tunnels the pedestrian circulation system of downtown removes itself from the street. Only those denied access to the tunnels by guards - the poor, the homeless - are forced to use the streets. The pedestrian has been removed from the urban experience, as 'happenstance' becomes regulated.
Buffalo Bayou, Downtown Houston, Texas. Intertwined with the street grid of downtown, I-45, I-10, and Highway 59, Buffalo Bayou maintains the natural quality of the gulf coast landscape. Swamp-like terrain becomes hidden below the massive infrastructure of the city.
CONFLICTING SYSTEMS

"The phrase "to go into town," which replaced the nineteenth century "to go to town," indicates the uncertainty of the encounter, as if we could no longer stand before the city but abide forever within. If the metropolis is still a place, a geographical site, it no longer has anything to do with the classical oppositions of city/country nor center/periphery."  
-Paul Virilio, "The Overexposed City"
THE MAN-MADE: URBAN EXPANSION

In the early 1900's coastal Texas was primarily a rural society comprised of a few 'urban' areas. The development of World War II and the discovery of vast amounts of oil and gas resources lead to substantial population growth throughout the coastal region especially in the area of Houston, Texas. From 1900 to 1990 the population of the counties comprising the coastal prairie and marsh ecosystems in and around Houston increased some 1,000% with a growth from around 350,000 to approximately 4.1 million (U.S. Census Bureau).

This vast expansion of urban systems into the natural rural landscape brought about significant changes in the social structure of communities, as well as massive changes in ecological and wildlife habitats. As stated by John Herron in an essay titled, "Wildlife in an Urbanized Environment," the changes are many times so gradual that they are overlooked and ignored by most people. The outcome he notes is that:

"the Katy Prairie is changing from a native grassland intermixed with trees, streams, and wetlands towards suburban development of houses, streets, and lawns, progressing eventually to commercial or industrial development consisting mostly of buildings, concrete and asphalt."

THE NATURAL: SUSTAINABLE ECOLOGY

Currently, the expansion of Houston's west side threatens the life of ecological systems that struggle to coexist with the sprawl of economic and industrial growth. The landscape has been forever changed in the push forward toward economic gains of business and a 'better way of living.'

The Katy Prairie, located on the western edge of Houston, is best characterized by its tall grasses, standing water and a relentlessly flat topography. A part of the Coastal Prairie and Marsh Ecosystem, which extends along the gulf coast from southwest Louisiana to southern Texas, the Katy Prairie is the home of the largest concentration of migratory waterfowl in North America. In fact the Prairie is home to hundreds of species of mammals, reptiles and amphibians, as well. As continuous expansion moves toward the rural areas of west Houston, the loss of natural habitat and wetland areas continues to grow. Native grass cover, shrubs and trees have become replaced with manicured lawns, privacy fences, and three car garages as wildlife habitat becomes fragmented and the diversity of the land is depleted.

Approximately 25% of the original Katy Prairie has already been consumed by development. Planned communities such as "Clear Lake," "Fox Hollow," and the "Woodlands marks our fascination with the idea of a natural and rustic community. But as Del Weniger notes in his book The Explorer's Texas,

"The state of the planet is a major concern today, because part of it is undergoing man-induced changes... The result is that an ever-changing proportion of our people cannot, as they gaze across the fields and the cities, conceive of the original, natural Texas any more than one can, from opening a milk carton, imagine milking a cow or, from eating a package of potato chips, picture himself digging a hill of potatoes."

In the essay mentioned previously by John Herron, Mr. Herron lays out what he considers to be eight fundamental considerations for reducing the impact of urban development. The list includes:

- Planned development in and around environmental areas
- Cumulative Impact studies
- Set aside quality green spaces and natural areas
- Restoration of native habitat
- Economic Incentives and alternatives
- Wildlife management
- Landscaping considerations
- Public awareness and involvement

The project that follows uses the ideas stated by Mr. Herron as a type of 'springboard.' Issues of urban life, which are inextricably linked to all types of social, political and economic considerations, are used as a means of exploring ideas instrumental to the process of experimentation and change. Using experiences of the city, architecture becomes a means of mediating between urban development and an ecological sustainable community of native grasslands and natural wildlife habitat.
Urban Expansion, West Houston, Texas. Obstructed to the west by no geographical boundaries, the Houston population continues to move into the natural prairie landscape. Planned communities, mini-malls, and office parks clutter the landscape as urban expansion continues to consume large percentages of the prairie.
Urban Expansion, West Houston, Texas. Urban and industrial sprawl have forever changed the landscape of the surrounding prairie regions and coastal areas. The accumulative effect of human population pressures the sustainability of all types of fish and wildlife, as well as, agricultural lands.
Migratory Waterfowl Central Flyway, North America / Canada. Waterfowl of all species are found in unbelievable abundance on the Texas Gulf Coast. The region represents a major North America winter area with an estimate of well over 100 million ducks and geese per season. In turn, highly concentrated areas such as the Katy Prairie, shown in light green on the following page, become increasingly important to the ecological sustainability of gulf coast wildlife.
Coastal Prairie and Marsh Ecosystem, Texas Gulf Coast. The Texas gulf coast supports one of the most diversified arrays of fish and wildlife to be found in North America. Shown here, the Katy Prairie represents a large component of a very large scale system of wildlife regions located on the Texas coast line.
HYBRID LANDSCAPES

"The old landscape of naturalism and realism in being replaced by the new landscape of abstraction and artifice.... The naturalism of the seventeenth, eighteenth, and nineteenth century art is replaced by nonobjective sense of site. The landscape begins to look more like a three-dimensional map rather than a rustic garden. Aerial photography and air transportation bring into view the surface features of this shifting world of perspectives."

-Robert Smithson, "Aerial Art," Writings, p.92
THE IN-BETWEEN: HYBRID LANDSCAPES

The acknowledgment that inhabitants are "forever within" the city calls into question how society visualizes, constructs, and uses their surroundings. Architecture and the conceptions of urban and rural space have been drastically transformed by the continuous expansion or 'sprawl' of the man-made into the natural rural landscape. The collision of these environments come together as a continuous overlay of conflicting systems. Complex fields are thus formed; creating secondary systems of residual or "in-between" landscapes. These in-between landscapes have, in turn, began to blur the boundaries between the natural and the man-made.

The promulgation of architectural research based on and center around these new types of non/urban forms can institute a way of thinking by which and through which architecture can become a means of communication. In-between landscapes give way to the possibility of dismantling the common ideas about urban and rural in order to formulate a new type of uncertain or HYBRID landscape. Composed of a broad mixture of urban and rural superimpositions, the hybrid landscape allows entire spatial regions to take on the idea of 'city space.' Here and There collapse in the hybrid landscape as the classical oppositions of city/country becomes enmeshed in a highly interactive field of natural and man-made systems.

The continuous expansion of the Houston, Texas west side currently threatens the life of, what has been noted as a "Biosphere of International Importance" by the United Nations Environmental Program, the Katy Prairie. Best characterized by its tall native prairie grass, ecological wetlands, and a relentlessly flat topography, the Katy Prairie is home to the largest concentration of migratory waterfowl in North America. Native grass cover, depressed wetlands, shrubs and trees are quickly being replaced with manicured lawns, privacy fences, and three car garages, as wildlife habitat becomes fragmented and the diversity of the land becomes increasingly depleted.

The following photographic representations are used to elaborate on the vast prairie landscape. Using aerial and surface photographs, the work attempts to reveal what Robert Smithson refers to as a "three-dimensional map." Simple topography and roadway maps are no longer enough to express the complexity and diversity of the landscape. Collage becomes a way of expanding the view of a camera, as moments and objects in time - roadways, fence rows, tree lines, flooded fields, and flocks of ducks and geese are superimposed into series of 'shifting perspectives.'
Skyline, Downtown Business District, Houston, Texas. Dominating the flat Texas landscape, the Houston skyline becomes an iconic image of modern development. Isolated and formal, the skyline collides with the continuous and amorphous landscape. Turbulent and changing, the juxtaposition of systems transforms our natural surroundings into a series of deregulated, hybrid landscapes.
Interstate 45, North of Downtown, Houston, Texas. The constant development and collision of man-made systems, such as the highway, have redefined how the natural landscape grows and develops. Reconstructed, the hybrid landscape of man and nature unfolds into a series of constructed mounds, flooded wetlands and concrete slabs.

HYBRID LANDSCAPES
Buffalo Bayou, Inside the Loop, Houston, Texas. Rising up out of the swamp-like landscape the rigid modern glass tower is juxtaposed to the uncontrollable natural systems. Viewed in concert, the formal and the un-formal embody the potential of the 'hybrid landscape.'
Abandoned Warehouse, North Houston, Texas. In the end all that is man-made becomes overtaken by natural systems. Left behind, the abandoned structure becomes engulfed into a new system. The new system, composed of man-made and natural systems, takes on a life of its own.
USGS Aerial Quad Map: "Brookshire", West Houston Area. The ability to view the landscape in a new perspective changes the overall scope of how we visualize and interact with our surroundings. Formal, spatial and textural elements collapse into a field of hybrid landscapes.
NON/URBAN GENERATORS

"Moreover, the cause-and-effect relationship sanctified by modernism, by which form follows function (or vice versa) needs to be abandoned in favor of promiscuous collisions of programs and spaces, in which the terms intermingle, combine, and implicate one another in the production of a new architectural reality."

METROPOLITAN PROGRAMMING
In the nineteenth century the lure of economic prosperity in the city emptied rural America of vast amounts of social and cultural identity. Today, at the end of the twentieth century, it is the idea of the city that has lost all form of perceptual identity. The physical representation of this phenomenon results in a 'Metropolitan Region' that cannot be perceived as an individual entity.

In an attempt to elaborate the idea of a 'Metropolitan,' the concepts of "crossprogramming, transprogramming, and disprogramming," (Tschumi, Architecture and Disjunction) are used to exemplify the desire to construct endless possibilities. In contrast to specific programming and/or planning, Metropolitan Programming denies the modernist ideas of unification and simplification by accepting the extremely dynamic and complex systems that make up the city. In turn, eliminating unitary ways of thinking by substituting a multiplicity of programmatic elements and events.

In a city dominated by space, architectural interventions give way to a potential for constructing new urban forms. Presented here in the form of THE KATY PRAIRIE ENVIRONMENTAL PARK, architecture actively participates in the establishment of new social, political, economical, and environmental systems. Based on and centered around the development of a general aviation airport, the Environmental Park proposes alternative programmatic and environmental elements typically thought of as outside the conventional building program.

Conceived with respect to the industrial park of mechanical production and the hyper park of the information industry, the Environmental Park promotes the development of natural ecological and wildlife habitats. Elements of the landscape, such as prairie grass fields, depressed wetlands, flooded fields, agricultural plots, and densely wooded areas, establish a new set of relationships or 'rules' that the man-made systems must abide. Malleable fields of landscape influence man-made interventions, as roadways, airport runways, and building sites must continually accommodate an ever changing set of surface conditions. Seasonal flooding and winter wildlife migration alters the function of the man-made interventions, as natural systems routinely overtake the landscape. Runways are forced to interchange scheduling as areas become flooded, flight activities are eliminated during the winter months of migration, and conservation activities fluctuate with the ever changing program and landscape of the Katy Prairie Environmental Park.
*Diminished Grid, Conceptual Drawing.* While present in maps and aerial photography, the grid systems of agricultural plots and roadways become diminished through actual experiences of the landscape. The power of the relentless prairie landscape overtakes the grid, distorting it and sometimes eliminating it, only to allow glimpses and memories of a structured system to remain.

**NON/URBAN GENERATORS**

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Katy Prairie Environmental Park, Houston, Texas. The conceptual destruction of the grid gives way to a new type of organization as well as a new scale of urban configuration. Ignoring the ideas of classical order the Environmental Park becomes a malleable surface of interchangeable surfaces.
Observation Points, Katy Prairie Environmental Park, Houston, Texas. Objects typically associated with sport hunting are now used to promote the wildlife and landscape of the park. Dispersed throughout the park as points of observation tree stands, boat blinds and ground blinds provide the park inhabitant with an opportunity to experience the beauty and education value of the Katy Prairie.

NON/URBAN GENERATORS

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Katy Prairie Environmental Park, Year 1998, Houston, Texas. Agricultural fields (Middle Green), Flooded Fields (Grey), Prairie Grass Fields (Yellow), Wetland Fields (Light Green), and Wooded Areas (Dark Green) become malleable surfaces, mixing together to form unnameable hybrid landscapes. Collapsed, intertwined, and mixed the landscape becomes a surface of inseparable textures and experiences.

NON/URBAN GENERATORS

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Biennial Transformations, Environmental Park, Year 2000, Houston, Texas. In an effort to continuously refurbish the land's natural minerals the surface areas of agricultural, natural prairie grass, wetlands, and flooded fields are rotated every two years. This process not only allows the natural systems to replenish themselves but also adds another level of diversity to an ever-changing Environmental Park.
Biennial Transformations, Environmental Park, Year 2002, Houston, Texas. Four years after development the park once again transforms. Last years, agricultural fields are flooded to replenish the soil and provide rest ponds for wildlife. Flooded fields are now drained and/or irrigated into surrounding areas allowing natural Texas grass to flourish in a revitalized landscape. Wetland fields and wooded areas continue to grow and evolve through their own natural processes.
*Extended Site Plan*, West Side General Aviation Airport Conservation Center, Katy Prairie Environmental Park, Houston, Texas. Based on research provided by Texas Fish and Wildlife the dark green area marks the park areas (approx. 40%) impacted by airplane noise and movement. The other sections (approx. 60%) become dedicated to the preservation and observation of the natural landscape and habitat.
Enlarged Site Plan, West Side General Aviation Airport Conservation Center, Katy Prairie Environmental Park, Houston, Texas. Imposed onto the natural landscape, man-made systems necessary for airport functions become enmeshed into a complex field of malleable surfaces. Controlled by the fluctuation of natural growth and transformations of natural systems the airport must alter procedures with seasonal habitat changes and the abundance of gulf coast rains.

NON/URBAN GENERATORS
"I have often thought that when we actually move physically in space our mind takes a secondary position to our body's tactile sensation. When we physically stop moving and become fixed, our mind takes over the primary position. How often while walking when deep in thought do we suddenly realize that we have no recollection of having walked from point A to B. When our mind is working intensively, our body, for all intents and purposes, seems to be fixed and might as well not be in motion."

John Hejduk, "The Flatness of Depth,"
Mask of Medusa, p. 312
METROPOLITAN ARCHITECTURE

Metropolitan Architecture attempts to address an enigmatic set of problems that tacitly contain three interconnected sets of issues. The first of these issues concerns what constitutes architectural and urban space, form, and materiality. The second issue involves the problem of program and how it can be redefined or manipulated. Thirdly, and by no means last, is the relationship between architecture, ideas and expression.

Metropolitan Architecture demands the investigation of abstraction and the willingness to construct it. By utilizing tools from 'cross-experiences,' new inventions are possible. To dismantle and reassemble a common or found object offers the possibility to roam the boundaries between the material world and the ephemeral realm of the imagination. The production of objects such as drawings, models, paintings, and collage allows architects to dismantle the common ideas of architectural building and program in an attempt to formulate a new architectural expression. Through the realm of the imagination, metropolitan architecture seeks to redefine the common, what some refer to as the banal, the mundane, the simple, in order to introduce the issues of space, form, and materiality to society as sufficient cultural imperative. The promulgation of an architectural imagination based on and centered on urban and tectonic form can instill an imagination by which and through which architecture can become not only a practicing discipline but also, a way of thinking—-if not a new form of life.

In the closing years of this millennium new challenges abound. Architecture and the conceptions of public and private space have been drastically transformed by the move toward digital modes of representation. Technological progress calls into question the wisdom and assumptions about how we perceive, use design and construct our surroundings.

METROPOLITAN ARCHITECTURE
Architects are now challenged to assume a new level of technological vision while sustaining an ethical accountability to the social, political, economic, and ever increasing environmental forces that have impacted the design environment for time and immemorial. Thus, with the future of architecture in continuous flux, the profession must strive toward a way of working that allows the belief in architectural expression to be a means of communication and construction conceived and materialized through the act of making.

The research proposed by Metropolitan Architecture is based on three fundamental goals.

- To continually question the post-industrial condition by identifying and examining the systems, forms, and practices that have manifested into a set of conflicting programs, relationships, and ideals.
- To exploit the ideas of representation and making as a way of critically evaluating and reconstructing space, form, and materiality.
- To create new environments that acknowledge the opportunities and physical constraints presented by architectures desire to translate critical ideas into some type of built realization - Design intention becomes Constructed Reality.

The concept of Metropolitan architecture provides a unique opportunity to conduct research within an academic design discourse, while continually allowing both 'academic' and 'professional' interests to exist in concert with one another. Metropolitan architecture is, if nothing else, about the encouragement of critical thought and the promulgation of alternative models of design practice and design construction. Furthermore, the exposure of an nonurban discourse, implemented into architectural programs not only accumulates knowledge but communicates to society the potentials of defining architecture as simultaneously, a way of thinking, a way of making, and finally, a way of building.
Detail, Collage 5. Composed conceptually as a physical space, five individual moments in time collide simultaneously to reconstruct a momentary memory of occurrences. Familiar objects and spaces are dismantled and reassembled in an attempt to roam the boundaries between the material world and the ephemeral realm of the imagination. Working on a continuous scale of relationships — static, dynamic, and ephemeral qualities of memory, space and time collapse to become a new moment — a new spatial event.
Volume. Conceptual Design Drawing, Westside General Aviation Airport/Conservation Center, Katy Prairie Environmental Park, Houston, Texas

METROPOLITAN ARCHITECTURE
Ground Level Floor Plan, Westside General Aviation Airport/Conservation Center, Katy Prairie Environmental Park, Houston, Texas.
Roof Plan, Westside General Aviation Airport/Conservation Center, Katy Prairie Environmental Park, Houston, Texas.

METROPOLITAN ARCHITECTURE

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Cross Sections, Westside General Aviation Airport / Conservation Center, Katy Prairie Environmental Park, Houston, Texas.
Aerial Photography, Westside General Aviation Airport / Conservation Center, Katy Prairie Environmental Park, Houston, Texas.
THE METROPOLITAN REGION: AMERICAN SPACE FOR AN INDIVIDUAL SOCIETY

Freedom, opportunity, and choice - Three terms that signify a terminology that has been, and continues to be, an essential component of the American frame of mind. However, the underlying definition and use of the terms has been drastically manipulated over the course of American history. Unlike the early explorers who crossed the Atlantic Ocean in search of political and religious freedom, today's understanding of these terms and their meaning has been collapsed into one unifying idea - Individualism. Unrestricted limitations as a mind set of the individual has resulted in a reconfiguration of the American landscape. The space of our cities, towns, and county sides have become consumed by, to borrow a term from James H. Kunstler - American Space. Controlled by an underlying principal that land is first and foremost a commodity for capital gain (Kunstler, p.26), the American landscape has evolved into a series of 'sprawling' cities composed of detached and isolated enclaves set in a field of superimposed natural and man-made landscapes - the METROPOLITAN REGION.

Introduced in the nineteenth century, the myth of great lands in the American west, portrayed through folk tales, campfire stories, and newspaper articles, evoked a new sense of opportunity for the individual. The 'The Great Wild West' was by all respects 'available,' abundant with vast lands of 'unsettled,' landscapes. The individual, free to move at will, set out to inhabit the western lands. In turn, the need to separate one's self from the now settled eastern edge of the country set the pace for the growth of a society toward individualistic settlements, and the reconfiguration of America's rural and urban landscape.

Ironically, the land acquisitions that began the settlement of the west America landscape and the move toward an ever increasing society of individuals began as a desire to do just the opposite. Early government officials, such as John Adams, believed that "the only possible way [...] of preserving public virtue [was] to make acquisition of land easy to every member of society (Jackson, p. 31)." Hence in 1785 the newly formed federal government passed the Jefferson Land Ordinance. The ordinance mapped and parcelled all the territory west of the Appalachian mountains into an immense grid of lines that defined six square mile areas. These large areas were then subdivided into thirty-six one square mile plots of land. This finite breakdown of an otherwise infinite landscape essentially brought the classical idea of city planning out into the natural landscape. Thus, the idea of American Space was introduced as The Jefferson Land Ordinance of 1785 reversed the traditional relationship between city and country by imposing man-made intervention onto a natural system in order to accommodate the needs of individuals.

In an article presented for the Paul Kennon Memorial Symposium: "Architecture After the Individualism" at the Rice University School of Architecture, Spring, 1997, Professor Mabel Wilson of the University of Kentucky spoke of the "frontier myth" of western America. Professor Wilson contended that this 'myth' was an ideology that transformed the temporal and spatial understanding of the western movement. While the articles thesis aimed toward conceptions of cyberspace and new high-tech developments in mid-town Manhattan, Professor Wilson's ideas of Americas movement west and the sociological impacts spread a new light onto how the measurability and complete control over the western landscape was perceived as means of freedom rather than control. Professor Wilson stated that:

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"The myth screens out those processes by which and by whom its space has already been quantified. It constructs itself as "other" to forge social unity, while repressing and hiding social friction and antagonisms, as well as those social groups that produce them. The frontier myths of effectiveness, then, is that it at one moment spatializes a horizon of possibilities conquerable by personal ingenuity and risk, a liberal individualism and at the same time fashions a space of social cohesiveness, a democratic totality, a public sphere that flattens out internal inequalities and social injustices."

The picturesque idea of freedom, independence, and choice had overshadowed and made invisible the new civic spirit that was based on the economy of measurability. While government funded organizations began dividing up the landscape and rationing off natural amenities in the name of an individuals right to own land, the American people followed along as their perception of American equality looked toward the west as a place of limitless restriction for each and every individual brave enough to explore.

Early settlers, unlike the native population they displaced, saw before them a virtually limitless land base. The west was yet to be settled and with no 'in place' government regulation land became a commodity, where upon your 'stake' insured your right as an individual and an American. The notion of the American 'frontier', noted by Professor Wilson, along with the desire to stake a claim, the reverence for private property rights, and the fierce resistance to anything larger than local control persisted through the history of the American west. Paradoxically, the federal government played and continues to play a leading role in extensive land use planning and development projects. Two such projects, the Land Ordinance of 1785 and the Interstate Highway Act of 1956, mark extensive plans developed and imposed onto the American landscape by the federal government. While the fact remains that privately owned land is immensely important in the United States, providing physical, spiritual, and financial security it over the course of history has continually been both nurtured and abused. In short, the individualistic nature of our society, even though fully aware that the individual landowner, both small and large, may be rigidly constrained by political and economic circumstances, clings to the illusion of full and absolute control over one's land and one's self - a vital part of the 'American Dream' and the construction of American Space.

American space was originally implemented and continues to be constructed on the desire of all Americans to be individuals free and in control of one's self while inextricably linked to the social, political, and economic forces that propel society. As a notion, individualism coincides with the emergence of our rights and liberties
as a means of separating ourselves from the clutch of the collective. In reality, the process of separation and the shift from public to private sectors merely becomes an effect of and/or a perpetuator of our reliance on non-individualistic elements, such as transportation and communication. For example, in 1956 the federal government passed the Interstate Highway Act which initially provided the development and construction of 4,100 miles of limited access, toll free interstate systems. Proposed and initiated of the premise that the interstate system would allow the rapid movement of men and material during a nuclear war, the highway more readily enabled the movement of all men, women, child, and product as mobility fostered rapid interurban transport as well as suburbanization. Once again, the desire to ‘pack up and move’ away from the “settled” land, now urban centers all across America, had transformed the natural landscape. The desire to have a single family home on plot of “rural” landscape collided with the military strategies of the federal government to form what has been noted extensively as the “Decentralization” of America.

However, the Interstate system alone was not the cause for the massive post-World War II population shift in America, as some would argue. On the contrary, several individualistic issues such as rising personal incomes, desires for the single family homes, and racial prejudice enmeshed with collective entities such as the interstate highway system, the Federal Housing Administration, tax deductible mortgage interest and property taxes, as well as, inexpensive construction techniques, to contribute to a massive shift in population and urban density. American space now condensed in and around urban centers, in the form of public and private office parks and planned communities, could be seen and in turn felt. American space had manifested into a series of ‘Metropolitan Regions’ as the metropolitan region became consumed with many different types of American space.

Today, at the eve of a new millennium, the metropolitan region defines the essence of the city and its diversified landscapes. Individualism and the need to privatize immediate surroundings has impacted cities throughout the world. In his book *The Geography of Nowhere*, James H. Kunstler states that:

“Above all, it [individualism] tends to degrade the idea of the public realm, and hence of the landscape tissue that lies together the thousands of pieces of private property that make up a town, a suburb, a state. It also degrades the notion that the private individual has a responsibility to this public realm.”

Has the public realm been completely lost? Or, has it been transformed into something which has yet to be acknowledged? Where are the potentials for a new type of public realm? Can they be found in the “Exurban Ellipsis” of Professor Albert...
Pope’s Ladders, where voided space within the [historical vacuums of the periphery] demand an alternative framework to understand what might otherwise be dismissed as its absence of qualities?” Or rather, Do the potentials lie in the “fieldroom” of Lars Lerup’s article “Stirr and Gross, Rethinking the Metropolis, where the space of the city is “a constantly warping and pulsating fluidity...forever emerging, never exactly the same, liquid rather than solid?”

What remains from these questions, is the fact that our conceptions of public and private space, city and country, and rural and urban have been drastically manipulated, but not destroyed, by a move toward an individual society and the metropolitan region. The metropolitan region calls into question all of our wisdom and presumptions of how we perceive, use, and construct our surroundings. In reaction, the new public realm lies in our ability to question the violent and tawdry nature of our cities by allowing the ideas of these ‘conflicting systems’ to exert influences, illicit convictions and grow into an urbanism composed of new types of physical expression. This ‘new urbanism’ to quote Rem Koolhaas must and “will not be based on the twin fantasies of order and omnipotence; it will be the staggering of uncertainty...[and] about discovering unnameable hybrids’ that allow conflicting systems to mediate between the natural, the man-made, and the in-between landscapes of the metropolitan region. ■

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....Time makes a landscape ashes when it dies
And shifts them from a sieve.

Edgar Lee Masters
"Invisible Landscapes"


The above list documents reading material instrumental, both directly and indirectly, to the overall success of this project. In no way do they represent the overall scope of articles, books, passages, quotes, images and other sources used. However, the list does attempt to target very direct influences within this document. The list is not a 'Work Cited' or even a 'Reference List' but rather a series of influential readings that contributed to final product of this project.

READING LIST

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