DOMESTICATING SPRAWL: Dearborn Michigan and the Green Moat

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B.S., Architecture
University of Michigan, 2002

Submitted to the Department of Architecture in partial fulfillment of the requirements for the degree of Master of Architecture at the Massachusetts Institute of Technology, February 2006.

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ABSTRACT

Over the last century of urban decentralization, the suburb migrated a critical distance beyond the traditional city, and transformed into sprawl. The homogenous landscape of sprawl is characterized by repeating horizontal imagery of featureless buildings foregrounded with grass berms, planned for experience through the mediating frame of the car’s windshield. Contemporary design discourse has interrogated sprawl from many angles in search for ways to intervene in the most popular and most impenetrable form of American urbanism, issuing discussions ranging from those that raise polar alternatives to those that accept sprawl and meticulously analyze its forms and structure.

However, this thesis asserts that the American Midwest is a unique and important territory that has not been adequately appraised in the sprawl debate. Not only does the underlying structure and ideology of Midwestern landscape evoke certain comparisons to sprawl, one might argue that the American suburb was first borne out of the Midwest, more specifically around the Motor City Detroit. If the automobile is the enabling apparatus of sprawl, the birthplace of the automobile then coincides with the birthplace of the suburb. As both the originating source of suburban development and a current
scene of booming sprawl, the metropolitan region of Detroit sees the confluence of the new and the old forms of decentralized urbanism and is accordingly an excellent proving ground for new insights and proposals.

The project is sited at the zone of convergence between the ‘edge’ of Detroit, the first-growth suburban fabric of Dearborn, Michigan, and the ongoing sprawl of the Ford Motor Company. Rejecting the standard tabula rasa approach to sites of decentralized urbanism, this thesis evaluates the formal and social structures affected by sprawl as embedded and potentially meaningful contextual frameworks for design. Therefore, research and creative re-description are conceptualized as integral aspects of the design proposal. The investigation informs a hybridized morphological system that generates more fluid interrelationships between the presently disparate forms of decentralized urbanism in this context.

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<table>
<thead>
<tr>
<th>CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPRAWL: AN ‘OBSCURE’ INTRODUCTION 8</td>
</tr>
<tr>
<td>DECENTRALIZED SENSIBILITY 9</td>
</tr>
<tr>
<td>AGORAPHILIA 16</td>
</tr>
<tr>
<td>COLLECTING DEARBORN 19</td>
</tr>
<tr>
<td>GENERATIVE STRUCTURES 25</td>
</tr>
<tr>
<td>RE-POSITIONING FORD 35</td>
</tr>
<tr>
<td>SPECULATING THE SPREAD OF EYESORE 37</td>
</tr>
<tr>
<td>ARCHIPELAGO 43</td>
</tr>
<tr>
<td>INTERNAL NODAL PATTERNS 47</td>
</tr>
<tr>
<td>EXTERNAL AUDIENCES 51</td>
</tr>
<tr>
<td>THE SPRAWL CODE 53</td>
</tr>
<tr>
<td>FIELDS OF VISION 57</td>
</tr>
<tr>
<td>INTERVENING 59</td>
</tr>
<tr>
<td>IDENTIFYING OPPORTUNITIES 61</td>
</tr>
<tr>
<td>PARAMETERS OF THE ISLAND 63</td>
</tr>
<tr>
<td>DOMESTIC MORPHOLOGIES 67</td>
</tr>
<tr>
<td>SPRAWL MORPHOLOGIES 73</td>
</tr>
<tr>
<td>4 SCENARIOS 77</td>
</tr>
<tr>
<td>NEW SCENES 95</td>
</tr>
<tr>
<td>SOURCES 99</td>
</tr>
</tbody>
</table>
SPRAWL: AN 'OBSCURE' INTRODUCTION

The generic imagery of sprawl is at once alienating and familiar, belonging nowhere and appearing everywhere. While sprawl is commonplace and already well assimilated into popular vocabulary, it remains challenging to pinpoint either an absolute definition or its relative difference from suburban form. New sprawling development is unlike the quaint Levittown suburbs of the 1950s, and urban flight is largely a phenomenon of generations passed. Sprawl advances at an escalated pace due to its openness, tract development, and heightened responsiveness to economic forces. Sprawl is a more urgent and transformative system that has been re-conceptualized as an autonomous form of urbanism, while the traditional city center remains the primary reference point for suburbs. However, there is a vast zone of 'in-between' that obscures concise definition, explaining the frequent transposition of terms. This entropic transformation from suburb to sprawl highlights the metamorphic character of decentralized urban form. In order for new proposals to effectively address suburban sprawl, they must advance equally pliable strategies to engage its dynamic pattern of development.

1. Robert Bruegmann’s Sprawl: a compact history spends one chapter defining sprawl. A recent article in the Harvard Design Magazine, “On Planning, Suburbia and Its Discontents” by Matthew J. Kiefer attributes the term to William H. Whyte in the 1960’s, and remarks that “Many Americans who would have difficulty naming a living architect other than Frank Gehry readily understand the meaning of sprawl.”, No. 19, Fall 2003/Winter 2004
DECENTRALIZED SENSIBILITY

The Midwestern landscape is deeply imbedded with a decentralized ideology and structure that has cultivated certain forms and logic of decentralized urbanism. The initial settlement of the Midwestern frontier signified the first new expansion of American territory. While the Eastern states and much of the South were colonized by Europeans, the Midwest was the first region to become dominantly settled by generations who identified themselves as American. It happened under the new Public Land Survey System that inscribed the undeveloped remainder of the nation with a uniform orthogonal grid. The markings of the grid appear today to anyone flying over Midwestern farmland, where they are still most clearly discernible. The survey was first sanctioned as a means of structuring the undeveloped American territory for expedient private acquisition and subsequent agricultural cultivation (partially to subsidize already diminishing natural resources in the East). The grid subdivided land into six mile square townships which were further divided into square miles and then to quarters and quarter-quarter sections, which constituted a 40 acre farmable lot².

2. www.nationalatlas.gov
This standardization of the landscape marked a key departure from earlier systems of land assessment in the early United States. Prior to property settlements in the Eastern states, the land survey was done under the “metes and bounds” system, which was informed by the registration of distinguishing landscape features in a tactical manner passed on from European precedent. A property description in the eastern colonies would read something like: "the land that is bounded by the two large oaks to the north, by the woods on the south and east, and by the ravine that runs along the west" while a grid surveyed lot might be described by “NW1/4 SW1/4 SE 1/4 SEC22 T2 SR3E". The PLSS was blind to characteristics of the landscape, using only its internal abstract structure as a frame of reference, even reversing the logic of the earlier system by marking trees to indicate important intersections of the grid. The system of dispensing land was prioritized over the land itself. While the metes and bounds system observed varying natural qualities and suggested a more romantic appreciation of landscape, the ready-for-purchase efficiency and objectiveness of the survey parcel symbolized a new conceptualization of land as commodity. Later, the regularly portioned parcels of farmland would prove suitable for efficient subdivision into suburban tract developments. The logic of the survey system is a close relative to the accelerated systems of consumption in sprawl development.
The survey grid was symbolic of the American Dream in the Midwestern frontier that was later renewed in the flood of postwar suburbanization. The grid was conceived as a means of expediting the acquisition of private property; the democratic ideal of a parcel of land to cultivate for a low price to any man who claimed it. Since early settlement, private property rights have continued to be a defining Midwestern value. In more recent history following World War II, the masses of veterans returning home and an economic boom instigated the most powerful wave of suburban development in the United States, inciting the Levittowns and other cookie-cutter developments. The federal government encouraged suburban development by providing amenable mortgages for young veterans, thereby greatly expanding the population of the property owning class. A detached home and backyard became the embodiment of the American Dream that was newly conceivable for many young Americans. Wood frame construction was streamlined to yield maximum efficiency and meet market demand, and acres upon acres of farmland were redistributed into single-family residences. The agricultural structure of the early Midwestern American Dream was fractalized into the later suburban version of the half-acre house lot. The Midwestern land claim and the suburban ideal are both correlated to settlement systems that uniquely preference homogeny and decentralization, as opposed to hierarchical and centralized structures of traditional urbanism and land distribution.


An important stipulation in the structure of the survey grid was the requirement that one square mile (conventionally the centrally located #16) was allocated for a public school. As the single variant in the uniform grid, it produced a regular pattern of centralizing public infrastructure that sometimes developed into the small town centers, serving the regional settlers distributed across the agricultural fabric of the surveyed territory. This polynodal pattern was superimposed by the periodic density of major centralized cities such as Detroit, Cleveland, and Chicago that were established before and during the survey settlement along strategic waterways and trade routes. Although the Western and Southwestern states were settled under the same survey, those areas lacked the denser urban centers found across the Midwest. Instead, a city such as Los Angeles has a more widely spread, poly-centric structure, making for a more uniform distribution of settlement than the distinctive urban punctuation of the Midwestern grid fabric. Some researchers have even described early Californian developments as transplanted Midwestern small towns, settled by Midwesterners with visions of the typical town ideals.

6. www.nationalatlas.gov

An archetypal city-suburb transect might be described as a dense center with rings of entropic suburban development radiating outwards, suggesting the urban ‘source’ of suburbs. The early bedroom suburbs like the Levittowns in the Northeast best embody this diagram, where the central city continues to serve as the major resource for employment, entertainment, and shopping. Contemporary forms of sprawl, on the other hand, develop more autonomously from urban centers, responding opportunistically to different instigators of growth. The typical city-suburb transect has decreased significance in the Midwest today, as many of the industrial cities that originally spawned suburban growth are now so depleted that the surrounding suburbs have since disengaged from urban resources. In fact, it is an increasingly common phenomenon that downtown centers such as Detroit are now so abandoned by industry and commerce that the city residents have turned to the suburbs for shopping and employment, reversing the flow of the typical urban-suburban relationship.
Industrial decentralization was a significant force in the decline of many Midwestern cities, which spread management and production to suburban and remote international locations. This decentralization was manifested in the growth of office and industrial parks (or combinations of the two), prototypical structures of sprawl. Advanced communication, transportation, outsourcing, and networking systems attributed to a Post-Fordist economic structure liberated industries from the high rent and diminishing appeal of central cities. The new requirements for the decentralized corporate structure were fulfilled by a freeway connection and a wide tract of developable land, such that office parks often emerge in rural areas as vast farm lots are sold off. Because of the remoteness, office parks often include amenities to service employees, such as banks, convenience stores, and restaurants, establishing a small scale private urbanism in the process. Residential developments often follow suit, as employees are attracted to amenities and seek shorter commutes. A recent Brookings Institute study on office sprawl cited office park development as an important indicator of future residential growth. Across a Midwestern metropolitan region today, the urban-suburban-rural transect is interjected not only by the historic public nodes of the survey but also the sprawl urbanism of office parks. The development of corporate office parks with related residential sprawl has emerged as a Post-Industrial instigator of development which succeeds the more historic influence of the Industrial centralized city.
Detroit is known as the city most victimized by industrial decentralization, experiencing the evacuation of nearly half its populace in the past several decades. Home of the “Big 3” companies of Ford, General Motors, and Chrysler, Detroit’s industrial past was deeply staked in the automobile market. Around the turn of the century, Henry Ford had begun to devise a new production and management strategy that would come to embody the economic structure later called Fordism. Ford implemented production technologies that led to the vertical integrated factory and the eight hour work day, higher wages, and lower automobile prices that made owning a car attainable for the first time to the blue-collar workers who served on the line to assemble it. Thereby, as early as the 1920’s Detroit had become the first urban region to advance under the framework of the egalitarian automobile. However, the product of Detroit’s industrial success soon became the tool of its demise. Advancements in production, evolving economic structures, new trade agreements, and the mobility introduced by the automobile made it possible and profitable for industry to decentralize. Soon after its peak in the middle of the century, Detroit’s myopic commitment to the auto industry proved detrimental. The city’s influence was rapidly relinquished into surrounding suburban factory sites, industrial parks, and office parks. Now, as the originating source of automobile based suburb and current sprawling development, the urban structures of the Detroit metropolitan region are a living archeology of decentralized form.


A DRIVE
In authentic suburban fashion, this mapping involves with a drive away from the city. The itinerary is steered by one of Detroit’s radial avenues, extending on a seventy mile course outwards, documenting the reverberations of development through small towns and office park sprawl that characterizes the contemporary Midwestern landscape.

- small town center
- strip development
- residential
- office park
- rural
AGORAPHILIA

The archetypal suburb is characterized by the unbuilt; the continuous and flat spaces of grass and pavement stretching between featureless buildings and the horizon. The neighborhoods are disorienting labyrinths, houses far apart, repetitive, and forgettable, thwarting the unfamiliar from discovering a way out. Each home is secluded from observation by surrounding swathes of lawn and shrubbery; often the only hint of what happens behind the windows and doors. The suburban spaces of detachment have repeatedly captured the creative imagination of artists, filmmakers, and authors, who recognize the indeterminacy and ordinariness of the empty landscape as unique potential. The familiarity of the context with its well-rehearsed imagery and rituals of conduct presents an ideal canvas to exploit subtle oddities. One of the most disconcerting scenes in the film, Poltergeist, involved merely the sudden and unexplained re-arrangement of kitchen chairs on top of the table. Minor abnormalities become striking disturbances in the context of such repetitive pattern. The emptiness and related indeterminacy of the landscape on the other hand prime the scene for aberrant behaviors, making it an ideal setting for thrillers, mysteries, and horror stories.
In a romantic version, the suburbs occupy the intersection between the domestic realm and the wilderness. Urban withdrawal is inherently implied in the word; a mindful diversion from the city’s pressures and congestion in exchange for life closer to the edge of nature. Democratic realization of the ideal has created the domestic lawn, a piece of virtual nature that ensures everyone’s intimate share of the pastoral landscape. The forests that used to cover the Midwest continue to be an invisible force in the suburbs, concealed as lawns by the weekly ritual of mowing, but suddenly emerging on neglected yards or in forgotten in-between places. Frequently, the occurrences of nature trickle into the domestic realm. The charm of observing small doses of wildlife from the protected vantage of the kitchen window is an experience uniquely encouraged by the suburban environment. When thunderstorms roll in around dusk, the sky becomes an open theater of wild imagery and spectacular noise. And at night, neighborhoods are immersed in a darkness that doesn’t exist in the city, as the spaces between everything are filled with emptiness.

The distinctive, uncanny, and liberating qualities evoked by the suburbs are the unique ingredients and greatest sites of potential poignancy in new projects for this context. The suburban environment presents striking juxtapositions and distortions between the natural and the artificial that if provoked could lead to valuable contributions in this ubiquitous landscape.
Dearborn is a first-ring suburb outside of Detroit. The project examines Dearborn’s regional position between the city and the surrounding suburbs and its internal structure, as it is largely defined by the influences of the Ford Motor Company, both through the once-immense Ford Rouge Factory (now greatly decreased in capacity) and the Ford corporate presence in its World Headquarters, sited within the company’s 1800 acre office park development, known as the Fairlane Corporate Community.

The Fairlane Corporate Community occupies the central third of Dearborn. The remaining two sides of the city are primarily composed of dense early suburban residential fabric.
COLLECTING DEARBORN

A ‘collection map’ of historic ribbon farms, previous and present routes of the Rouge River, the residential grid and block structures, the roads that extend into the surrounding city and suburbs, sites of residential redevelopment, public nodes, and each building of the Fairlane Corporate Community in gradation from the newest (black) to newest (light gray). These are the ingredients of the research and proposals.
THE RIVER, THE FOREST, AND THE TRAIL

1786: Dearborn is first officially settled by Americans along the Rouge River. Agricultural clearings in the form of ribbon farms begin to emerge at the juncture of the Old Sauk Trail (later to become Michigan Avenue) and the Rouge river, the only existing structures to the forest.

1910: 800 farmers and merchants. The forest has been cut down and exported to the eastern ports. Orthogonal farms surround the old ribbon lots.


Facing: the intersection of the river and trail.

GENERATIVE STRUCTURES

The impulses and events that have framed the growth (additive and subtractive) of Dearborn’s built fabric.
1918: The Ford Rouge Factory is established in the place of several farms in the southeastern end of Dearborn, and instantly over 75,000 Americans and immigrants flood the city to work on the assembly line. Repeating blocks of residential development emanate from the factory, bounded on the west by several farms that Henry Ford bought out and continued to cultivate as part of his Fairlane estate.

1930: 50,000+ factory employees and families, merchants, farmers
THE POSTWAR SUBURB

1940s: During the war, the Rouge Factory transitions to weapons production. At its conclusion, Dearborn experiences the boom in suburban expansion that reverberated across the United States, and residential western Dearborn develops in response. Fairlane remains agricultural, although surrounded by Dearborn’s growth now on either side.

The Rouge switches gears, and cars become tanks and destroyers and jet bomb engines. Image from http://www.hhmgv.org/rouge/history2.asp

facing: the Rouge Factory continues to be the dominating node of development, expanding its operations during the war.
THE CITY

1967: Industry has largely left Detroit and the city has suffered immensely, losing much of its population to the surrounding suburbs.

1969: The Ford Motor Company embarks on the development of the 1800 acre Fairlane farmland as the new Fairlane Corporate Community between east and west Dearborn.

Bordering Detroit's urban unrest continued for 5 days in August of 1967, leaving 43 dead and causing an estimated $22,000,000 in damages, which were never fully recovered. Image from www.wadsworth.com

facing: the focus of development shifts to the center territory, entirely owned by the Ford Motor Company.
OPERATION EYESORE

2000s: The city of Dearborn's Operation Eyesore seizes and demolishes more dilapidated homes every year than any other suburb in the Metropolitan region. The process of residential development reverses to demolition.

On the other hand, with only 4 vacant lots remaining, Ford's Fairlane Corporate Community is 95% built-out. (However, large portions of existing office buildings are without occupants.)

Dearborn's aging residential fabric faces obsolescence.

Facing: the targets and demolitions of Operation Eyesore pepper the two sides of Dearborn.
1920s - 1960s

SURROUNDINGS = Detroit is industrial city center to east, mostly rural and some suburban development to the west.
FORD = the Rouge Factory, a central node supporting industry workers on both sides of Dearborn.

1970s - 1980s

SURROUNDINGS = Detroit rapidly declines due to industrial and suburban decentralization to the east, the suburbs expanding through farmland to the west.
FORD = the Fairlane Corporate Community, creating a defensive buffer of empty sprawl between new-er west Dearborn and old-er east Dearborn and Detroit.
1990s

SURROUNDINGS = Detroit continues demolition programs, suburban growth (sprawl) advances beyond west Dearborn in pursuit of the rural fringe

FORD = Fairlane Corporate Community separates (new-er) west from (old-er) east Dearborn that is beginning to share signs of Detroit’s decline and abandonment.

2000s

SURROUNDINGS = further demolition of Detroit, sprawl continuing in west

FORD = Fairlane Corporate Community is undefined territory between east and west Dearborn, that are now equally facing obsolescence in the wake of continued sprawl many miles away.

RE-POSITIONING FORD

(WITHIN DEARBORN AND IN THE REGION)

Translating Dearborn’s evolving identity through the central axis of Ford, and its corresponding shift from industrial to corporate built structure and mode of production.

Since Ford’s acquisition of Fairlane and the Rouge Factory (the central third of Dearborn’s area), the developments of their vast (1800 acre) territory have become the most prominent and solitary urban agent in defining Dearborn’s difficult position physically straddling the zone of contention between the industrially decentralized city and the suburbs beyond.

Bifurcating Dearborn, the Ford Fairlane territory stretches the entire length between its upper and lower boundaries and two miles across; in the ultimate position to facilitate relationship or detachment between the two remaining halves of the city.
'PRE-OPERATION'

'POST-OPERATION'
The most active course of residential development in Dearborn is one of demolition. The residential zones of eastern and western Dearborn were initially developed many decades ago, and are currently undergoing another stage of development in the reverse, as the structures begin to deteriorate or become perceived as obsolescent. The city run Operation Eyesore is the agent of the reverse development.

The determinants of program are temporal, material, and strategic, and combinatory. As individual erasures accumulate, the residential fabric will be redefined by these tactical extractions. Speculation of the future sites of Operation Eyesore suggest increasingly dispersed residential patterns in the city.

**EXISTING OPERATIONS**

Dearborn leads regional suburbs, demolishing 57 structures in 2003 and obtaining another 48 substandard buildings.

**SPREADING ABANDONMENT**

Streets from Detroit flow into Dearborn. The city currently tries to demolish 800 to 2000 decaying structures a year.
SOCIALLY 'OUTCASTED'

Neighborhoods that are not within convenient distance to social networks (commercial strips, civic buildings, parks, religious centers, schools, markets, and libraries.)

QUARANTINED SITES

The Fairlane development through the center and industries along the eastern edge isolate certain neighborhoods from the rest of the city.
AGING
The average age of housing in a declining suburb in the region is 45.6 years. Dearborn's average house is 46.

CONTAMINATED SITES
Neighborhoods that are downwind and down-river of heavy industry.
SPECULATED SPREAD PATTERN
SPECULATING THE SPREAD OF EYESORE
The disparate structures of the Fairlane Community’s corporate sprawl unite as a vacuous archipelago, acquiring coherence through stark enormity and emptiness compared to the finer grain of surrounding Fordist residential fabric.

Placing Ford’s archipelago in a contemporary social and economic gauge reveals the disjuncture between contemporary Post-Fordist production of corporate sprawl and the Fordist structures of mass-produced residential fabric within Dearborn and in the regional context between Post-Industrial city and expanding suburbs.

East and west Dearborn display polar difference in basic economic and social characteristics, in spite of having much in common, including equivalent building fabrics, shared middle schools and high school, shared civic amenities, and belonging under the name of the same suburb. The obvious variable is relationship to the Fairlane Community, the lynch pin between Detroit and the suburbs.
AGENTS OF THE ARCHIPELAGO:
The non-negotiable infrastructures that enable sprawl (wide roads with cloverleafed turns to minimize pause, a concretized river to eliminate flood potential) and the sparsely developed islands between them. The archipelago is most strikingly obvious from the aerial perspective.
The eastern half of Dearborn is adjacent to economically depleted zones of Detroit. Fairlane severs contact between western Dearborn and Detroit.

Economic disparity in Dearborn is delineated by the Ford territories, income levels in east Dearborn suggest more fluidity with Detroit than to the west Dearborn.

Eastern Dearborn has emerged as reportedly the largest Arab population outside of the Middle East in its enclavization by Fairlane.
FORD MOTOR COMPANY

The holdings of the corporation envelop the river and concentrate in and around the Fairlane properties, between the two residential zones.

ARAB PRESENCE

The infrastructures that specially support the substantial Arab population are almost entirely concentrated on the eastern residential side of Dearborn.
INTERNAL NODAL PATTERNS

Location of gathering places (varying in degrees of public-ness) and their resulting distribution through Dearborn’s fabric, revealing the infrastructures of Dearborn’s different internal constituencies.

CHURCHES

The religious infrastructure of Dearborn’s most common religion is distributed throughout the two residential zones, suggesting localized gatherings.

‘OPEN’ SPACES

The public outdoor spaces appear in patches across both residential zones but remain largely absent from the Fairlane Corporate Community.
CIVIC OVERLAPS
Locating the strategic coincidences between important civic buildings and Dearborn’s two major private constituencies, the Ford Motor Company and the Arab community.

COLLECTIVE NODES
Identifying the nodes that are most commonly frequented across different types of constituents in Dearborn.
EXTERNAL AUDIENCES

The programs and corresponding built structures that are most encountered by individuals originating from outside of Dearborn's boundaries.

CORPORATE COMMUTING, TOURISM, AND SHOPPING are the three major itineraries of external audiences. Corporate commuters are most likely to be found in the millions of square feet of Fairlane's office space. Tourists are drawn to Dearborn's three major attractions of the Henry Ford Museum and Greenfield Village, the Ford Fairlane Estate, and the Rouge Factory Tours. A direct public bus connection between the Fairlane Town Center shopping mall and downtown Detroit allows urban residents to access retail since it has almost entirely vanished from within the city in recent decades. The three agendas experience Dearborn through the generic structures of sprawl, guided by infrastructures of convenience that deposit them between the freeway and ample parking lots. The Fairlane Corporate Community is Dearborn's most prominent public interface, through the semblance of the Ford Motor Company.
MASKS (far left, Hyatt Hotel)
All natural surfaces and buildings are sealed with a thin layer of impermeable material. Asphalt and grass cover soil and glass curtains the buildings. Activities within buildings and natural processes outside are masked to guarantee the determined image.

STAGE SETS (left, Fairlane Town Center ‘island’)
Through the frame of the automobile, images are always subsumed with perfect green grass. The aerial perspective reveals that this is a staged construction, deploying narrow mounded berms of grass to camouflage the truth of unsightly asphalt beyond.

WATERPROOFING (facing, the Rouge River un-channelized and channelized)
The unpredictable forces of nature are subverted by waterproofing measures throughout the landscape. The flood plain of the Rouge River is eliminated and rain is speedily diverted with the introduction of a concrete channel. And of course, buildings that are enveloped in glass are immune to the stains of rain and effects of weathering.
THE SPRAWL CODE
TECHNIQUES OF CONSTRUCTING CORPORATE IMAGE

The appearance and future developments of the Fair-lane Corporate Community are carefully controlled by a contract of building codes and restrictions, ensuring the compatibility of landscape and building aesthetics with the production of Ford's desired corporate image as lots are sold and developed by different tenants.

In correspondence to its position as the global and regional interface within Dearborn, the code delineates various techniques to suppress the registration of local conditions and natural changes in favor of a generic, placeless image that rejects the specificities of time and place. Fairlane is a resultant global stage set constructed for the view of a remote audience.
THE SPRAWL CODE
TECHNIQUES OF CONSTRUCTING CORPORATE IMAGE

MIRRORS (far left: Ford World Headquarters, middle: 500 Towne Center, right: Ford Community and Performing Arts Center)
The reflective glass buildings disappear into the clouds, ensuring that only the generic materials and sky and grass become the new, nonspecific ‘context’ of the Fairlane Corporate Community, transcending the particularities of its place in Dearborn.
Ford's monopoly of territory in Dearborn is not only horizontal, it also occurs in the vertical. Fairlane exhibits the tallest buildings in Dearborn, asserting a disproportionately vast scope of observation over the city in contrast to the densely populated residential zones on either side.

THE TALLEST BUILDINGS IN DEARBORN/FAIRLANE:
Hyatt Hotel 16 stories
Parklane Towers
Ford World Headquarters
Fairlane Plaza North and South
INTERVENING

Dearborn bears the urban artifacts from two very different periods in an evolving structure of Modern production. The Rouge Factory was a prime example of peak Fordism, as the assembly line was fully implemented and production was finely tuned to achieve maximum efficiency. While the Rouge has retreated in size since its peak, the domestic counterpart of high Fordist production in the repetitive, gridded residential fabric, an intensification of the divisions from the land survey, still comprises most of Dearborn's built structure. The corporate sprawl landscape of Fairlane is the urban artifact of a subsequent phase in the devolution of production, less dependent on physical proximity than the infrastructures of spatial collapse, through the highway and information technology. The intersection of the two urban types has emerged as a chronic disjunction in Dearborn's fabric.

The city is split into three unequal and isolated parts by the sprawl of Ford's Fairlane development. As the product of a solitary company, the immense territorial monopoly under Ford puts Dearborn in the same shortsightedness that Detroit fell victim to in the course of industrial decentralization.

The proposal for intervention: a domestication strategy that takes the form of a new system of hybridized re-settlement that navigates between the disparate structures of decentralization to construct an interwoven rather than isolating urban structure across Dearborn.

The logic of 'domestication' is deployed as a response to the currently unbalanced urban structures. The strategy seeks to re-site the placeless and inhospitable structures of sprawl into the surrounding natural and built residential context of Dearborn. Transformation is built into the definition of domestication, referring to changes incurred through re-absorption. The strategy is tuned to formulate responses to different scenarios of development while maintaining its own internal logic.

As the Ford Motor Company is the propagator of sprawl in Dearborn, the condition of sprawl is largely dependent on the condition of the Ford Motor Company. The strategy is played out according to the projection of a polar range of four future scenarios for the Ford Motor Company.
IDENTIFYING OPPORTUNITIES

Interrogating the physical structures of the archipelago against its own internal logic of the Code to locate sites that are least adherent to the structures of sprawl and most poised for re-absorption into the logic of the domestication system.

Factors including obsolescence, monumentality, materiality, stage of development, physical embeddedness within the archipelago, and program were investigated. The sites that are least demonstrative of the goals of the code are older, forgettable structures, vacant lots yet to be developed under the Code, perimeter sites, and non-corporate programs, such as the shopping mall, which engages a local audience as well as the global/regional foci of many other generic sprawl structures.
PARAMETERS
The mall is an important node between Dearborn, Detroit, and the corporate community that should remain viable. The domestication strategy works within the frameworks that sustain the operations of the mall.

1. THE LOADING ACCESS PATTERNS MUST BE MAINTAINED

2. Because a large constituency of mall patrons arrive by bus, some parking might be overtaken by the new system without negative consequence for the mall. According to numbers given by the Institute of Transportation Engineers, a parking ratio of only 4 spaces/1000 square feet of floor area is necessary for a shopping center. According to this logic, UP TO 27% OF PARKING AREA CAN BE CONSUMED BY THE SYSTEM.
PARAMETERS OF THE ISLAND

The most provocative site to engage the domestication strategy is the "island" of the archipelago that centrally features the Fairlane Town Center shopping mall. A number of important forces intersect at this island, making it a complex but particularly meaningful site to intervene with the proposed system:

SYMBOLIC OF FORD: within the archipelago, this island includes a number of the tallest and most emblematic structures in Fairlane, and several are still occupied by Ford.

LOCALLY SIGNIFICANT: As the site of Dearborn's only shopping mall, this island is one of the very few instances in the archipelago that is frequented casually by Dearborn residents.

URBAN 'SATellite': The mall is the closest shopping center to the city, directly connected by bus.

INDETERMINACY: The site holds 1 of the remaining 4 undeveloped lots in Fairlane.

THE RIVER & THE FOREST: The undeveloped lot is adjacent to the forest and the last stretch of the river before it is subjugated by Ford's concrete channelization.
PARAMETERS OF THE ISLAND

MOTIVES OF THE DOMESTICATION SYSTEM

RE-HOST THE ISLAND: While the Fairlane mall is an important social node in Dearborn and a public interface to regional consumers, it falls under a physically generic and placeless form and context of sprawl that does not address its own presence in and significance to Dearborn. The system re-sites the mall within residential Dearborn by introducing domestic program to the site of sprawl, re-calibrating the currently un-balanced relationship between corporate and residential context.

REORIENTATION TO THE NATURAL: The river and the forest are currently unused and inaccessible to the residents of Dearborn due to the developments of Fairlane surround them. Both existing contexts repress the tendency of the forest through the use of the lawn. The forest poses an alternative environment to the suburb as dense rather than open, vertical rather than horizontal, protected rather than exposed, tree rather than grass, and so on. The system opportunistically traverses the central location of the mall within the island to re-channel the infrastructures of the island towards the forest and river as new sites of retreat from the everyday.
TYPICAL DOMESTIC MORPHOLOGY

THE GRID

THE BLOCK

240' total
2 lots @ 120'

street
front yard
back yard &
garage
fence/mow line/
property line

street
typical block section
HYBRID CONDITIONS

a. THE PERMEABLE BLOCK: is the most invisible to surrounding patterns of movement, facilitating movement in both directions through the block. The yards are bermed at maximum slope to elevate the home in scenarios where heavier traffic is expected through the block.

DOMESTIC MORPHOLOGIES

TYPICAL AND HYBRID CONDITIONS

The domestication system fosters fluid interrelationships between the structures of sprawl and residential program of Dearborn by forming new hybrid infrastructures of the two disparate morphologies. The suburban lawn plays an important role as the shared medium between the two types, in the sprawl form of the berm and in the residential form of yards. The sectional quality of the berm is adopted by the residential yard to tactically negotiate different intersections of domestic and corporate program. At the infrastructural scale, the residential block is transformed to strategically re-orient channels of movement to the contrasting world of the forest.
b1. THE INVERSION: The typical block is turned inward toward a tree alley orienting movement through the blocks to the forest. The berm raises the home to view inward over the garage. The block contracts at the edges to mitigate interference from traffic passing by.
HYBRID CONDITIONS

b2. THE PARTIAL INVERSION: one half of the block is replaced by park as strategy of domestic infrastructure to re-frame public open spaces through the island and facilitate movement toward the forest and river.
HYBRID CONDITIONS

c. ENVELOPE: Public infrastructure is absorbed into the domestic morphology. The block is opened to accommodate a public park infrastructure through its spine. The block is 'perforated', as a certain density of lots are designated to remain undeveloped to facilitate movement and entry across the block. Berming mitigates the relationship between private home and park, and is repeated to create smaller scale spaces in between.
HYBRID CONDITIONS

d. HOST: The block is most hybridized with public and corporate use in this condition, splitting along the spine to host existing or new corporate program. The elevation of the housing berm changes in response to distance from the corporate building. Trees are a vertical mediating device between the home and the parking lot or building, and raise the perceived height of the housing to address the taller buildings of the corporate context.
TYPICAL SPRAWL MORPHOLOGY
THE ARCHIPELAGO

THE LOT

THE MODULE

cubicle module
parking module
recreation 'module'

typical lot section
typical berm
parking lot
HYBRID CONDITIONS
OFFICE + PARK: The original berm that only served to buffer between parking and street is widened into functional recreation space.

SPRAWL MORPHOLOGIES
TYPICAL AND HYBRID CONDITIONS
The domestication system strategically re-informs the existing corporate structures of sprawl by introducing an infrastructure of public recreation space to the existing mediating and aesthetic device of the berm.

The corporate office park is typically ‘calculated’ rather than designed, through a system of proportions, ranging from the scale of the individual employee to the square footage of parking in the lot. The domestication system adopts the proportional organization, and proposes a new component in the corporate ‘kit of parts’, a new ratio of recreation area to office area, providing new grounds for company picnics and softball leagues.

berm is stretched into park
parking lot
HYBRID CONDITIONS

OFFICE + PARK 2: Finer articulation of the berm creates multiple park zones for varying scales of use and program. No longer a buffering structure between two entities, the berm becomes a space to engage from either side, suggesting movement across the typically segregating structure.
4 SCENARIOS

The Ford Fairlane property has been in a developing state for almost forty years. Its master plan is now approaching ‘completion’ with four remaining undeveloped lots. However, as seen through the example of Operation Eyesore, growth in a suburb is often degenerative. Some estimates project only a thirty year life expectancy for office parks.

The future forms of the Fairlane property are also contingent on Ford’s economic condition. The domestic auto economy is prone to severe highs and lows, and is currently projected to undergo one of its most significant downturns in decades, which will inevitably reverberate through the physical presence of the company in places like Fairlane.

The domestication strategy is therefore played out in response to different imagined scenarios of Ford’s future presence in Dearborn, deploying different tactics and structures according to the specificities of each.
SCENARIO 1, ISLAND SCALE
FORD EXPANDS TO FULL CAPACITY
EFFECTS: FAIRLANE PLAZA NORTH AND SOUTH, CORPORATE CROSSINGS, AND 500 TOWNE CENTER ARE FULLY OCCUPIED. THE VACANT LOT IS REDEVELOPED INTO OFFICE SPACE.

SYSTEM: OCCUPIES THE UNUSED PARKING OF THE FAIRLANE TOWN CENTER
The presence of sprawl is maximized in this scenario. The domestic system is configured as permeable to the movements through the site, but an internal pathway leading to the forest at the southwest of the island can be navigated through to the forest. A pedestrian bridge crosses the boundary of the island to lead into the forest. The corporate berms are widened and slightly inflected towards the southwest as well.
SCENARIO 1, CITY SCALE

FORD EXPANDS TO FULL CAPACITY

The accumulating sites of Operation Eyesore can be reconsidered as a new green infrastructure carving channels for traversing through the residential grids to eventually link up to the proposed structures of the domestication system in the center, creating a new fluid structure between Dearborn’s disparate regions.
SCENARIO 2, ISLAND SCALE

FORD CONTINUES AT STATUS QUO
(ASSUMING GRADUAL DECLINE DUE TO THE AGING PROCESS)

EFFECTS: FAIRLANE PLAZA NORTH IS 25% VACANT, FAIRLANE PLAZA SOUTH IS 100% VACANT

SYSTEM: OCCUPIES UNUSED PARKING AT THE FAIRLANE TOWN CENTER AND THE NORTHERN VACANT LOT.
The proposed strategy strikes a path across the island to the new site of the forest. The block fluctuates in response to changing contextual conditions, contracting locally to reorient from traffic, and flexing from between blocks to re-configure the path of the system. The corporate lots are allocated more recreation space and inflect toward the forest area.
SCENARIO 2, CITY SCALE
FORD CONTINUES AT STATUS QUO

The domestication strategy occupies the 3 other vacant sites crossing the archipelago and begins to form infrastructural links between them.

The sites of Operation Eyesore begin to form paths that traverse between neighborhoods.
SCENARIO 3, ISLAND SCALE
FORD’S PARTIAL WITHDRAWAL FROM DEARBORN
REMOVAL OF OUTDATED AND VACANT BUILDINGS
EFFECTS: DEMOLITION OF FAIRLANE PLAZA NORTH AND SOUTH, 500 TOWNE CENTER, AND THE FORD ENGINEERING SITE.

SYSTEM: OCCUPIES ALL DEMOLISHED RECENTLY DEMOLISHED SITES IN ADDITION TO THE SITES FROM SCENARIO 2
The proposed system begins to host new public spaces and existing corporate spaces as the block is split to envelop other programs. The Henry Ford Health Clinic in the northeast corner, for instance, remains but is rehosted by the domestic block. The block is configured in response to varying degrees of exposure to the clinic program. The overall structure of the system stretches between forests to the north and south of the island. Circuitous paths deep into the forest lead to perforated clearings in the forest, and a system of bridges allows crossing of the river. A raised viewing platform near the southwest corner of the island allows views over the tree canopy and introduces a new public ‘field of vision’.
SCENARIO 3, CITY SCALE
FORD’S PARTIAL WITHDRAWAL FROM DEARBORN
The domestication system traverses fluidly across Fair-lane, joining the infrastructure of Operation Eyesore at its edges, forging new connections across Dearborn.
SCENARIO 4, ISLAND SCALE
FORD'S COMPLETE WITHDRAWAL

EFFECTS: IT IS ASSUMED THAT NEW CORPORATIONS WOULD Emerge in Dearborn, the mall is replaced by a lake as a newly defined shared site between the domestic and sprawl.

SYSTEM: OCCUPIES SAME SITES AS PREVIOUS SCENARIO BUT REDEFINES NEWLY INTRODUCED CORPORATE PROGRAM IN THE SITES ALONG THE EASTERN BORDER OF THE ISLAND. The system begins to transcend the boundaries of the island, connecting bridges across the freeway to the arboretum along the east. New corporate developments are guided by the system, and increased fluidity is achieved by finally replacing the mall as the central structure and introducing the lake as a desirable node in the island.
SCENARIO 4, CITY SCALE
FORD'S COMPLETE WITHDRAWAL

The new infrastructure of the proposal re-situates the archipelago within Dearborn as a more permeable landscape and as a new concentration of public green infrastructure in Dearborn.
NEW SCENES

Clearing: bonfire

Clearing: pool
Clearing: camping and sports fields

The lake
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INTERVIEWS


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ARCHIVES

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The Benson Ford Research Center at the Henry Ford Center

IMAGES

Aerial photographs are from Google Earth and all other non-cited images and photographs are by the author.