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LIFE-PATTERNS ON THE PERIPHERY: A HUMANITIES BASE FOR DEVELOPMENT
IMPERATIVES AND THEIR APPLICATION IN THE CHICAGO CITY-REGION

by

Kevin Hodur

A DISSERTATION

Submitted in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

(Rhetoric and Technical Communication)

MICHIGAN TECHNOLOGICAL UNIVERSITY

2012

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This dissertation, "Life-Patterns on the Periphery: A Humanities Base for Development Imperatives and their Application in the Chicago City-Region," is hereby approved in partial fulfillment of the requirements for the Degree of DOCTOR OF PHILOSOPHY IN RHETORIC AND TECHNICAL COMMUNICATION.

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Preface

An Image of a Global City-Region

There is a very obvious break between the old idea of the city and the new idea of the city-region, one that presents itself to anyone driving south on Interstate 94 from Milwaukee. After crossing the border at Kenosha, Wisconsin, already there is a kind of low-density development, primarily along the Interstate, but branching in other directions as well. A few miles later, drivers are presented with a choice: Interstate 94, through the heart of Chicago, or Interstate 294, skirting the city entirely and passing through much of the suburban city-region. This is symbolic of the process of city-region development over the last century, with the core city now surrounded by a ring of lower-density development, one that spurns the grid-style structure of residential neighbourhoods and mixed-use development that places citizen needs within a close proximity.

Instead of seeing these older communities – the ones we would see continuing in the left-hand lanes on Interstate 94, this project focuses on the lower-density, limited-access residential neighbourhoods and strip mall and big box-style commercial-retail developments of the contemporary suburb, communities that are in ample supply within the Chicago city-region, and notable along the drive south on Interstate 294. This route takes drivers past interchanges with multiple Interstate highways – 190, 290, 55, 88, 80 – to say

nothing of the countless other major thoroughfares that form interchanges and weave together the Chicago city-region transportation infrastructure.

It is the last two of these Interstates, however – 80 and 88 – that form the basis for this project. As relatively parallel east-west routes, they provide an excellent opportunity for contrast, between each other and amongst the communities along each ribbon of concrete and asphalt. Here we can study not just quantity of automobiles in use or types of zoning, but also the life patterns of citizens, witnessing their daily needs, how they shape the landscape around them, but also how the landscape around them shapes the way they live.

This project focuses around four imperatives, developed through a foundation in humanities scholarship and extrapolated through contemporary and historical urban planning and development literature. The proposal here is that contemporary building patterns are not adequate to citizen need, and the following project aims to ascertain what the issues may be, how to correct them, and determine how future development and redevelopment can be citizen-focused and to the benefit of economic, social, political, and ecological factors.

This is also a project that requires a great deal of collaboration with other fields. To do otherwise would be to adopt an attitude typified by much of Interstate 294's march through northeast Illinois, travelling above the communities themselves, sound barriers erected along the sides to make the presence a bit less noticeable. These are walls that must be broken down –

figuratively – if we are to redevelop effectively and the build the types of communities that are distinct and in which we want to live.

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Thank You, Bow, Salute

***Humanities Department – Michigan Technological University,
Houghton, MI***

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My Parents and Family, Chicago, IL, Miami, FL, St. Louis, MO

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Abstract

Life-Patterns on the Periphery: A Humanities Base for Development Imperatives and their Application in the Chicago City-Region is informed by the need to bring diverse fields together in order to tackle issues related to the contemporary city-region. By honouring the long-term economic, social, political, and ecological imperatives that form the fabric of healthy, productive, sustainable communities, it becomes possible to setup political structures and citizen will to develop distinct places that result in the overlapping of citizen life patterns, setting the stage for citizen action and interaction.

Based in humanities scholarship, the four imperatives act as checks on each other so that no one imperative is solely honoured in development. Informed by Heidegger, Arendt, deCerteau, Casey, and others, their foundation in the humanities underlines their importance, while at the same time creating a stage where all fields can contribute to actualizing this balance in practice. For this project, theoretical assistance has been greatly borrowed from architecture, planning theory, urban theory, and landscape urbanism, including scholarship from Saskia Sassen, John Friedmann, William Cronon, Jane Jacobs, Joel Garreau, Alan Berger, and many others.

This project uses the Chicago city-region as a site, specifically the Interstate 80 and 88 corridors extending west from Chicago. Both transportation corridors are divided into study regions, providing the opportunity

to examine a broad variety of population and development densities. Through observational research, a picture of each study region can be extrapolated, analyzed, and understood with respect to the four imperatives. This is put to use in this project by studying region-specific suggestions for future development moves, culminating in some universal steps that can be taken to develop stronger communities and set both the research site specifically and North American city-regions in general on a path towards healthy, productive, sustainable development.

Chapter One

Introduction, Explanation of Terms/Concepts, Literature Review

"Vancouver is obviously the greenest of cities, and you can assemble a varied green palette using the following species: cedar, fir, rhododendron, vine maple."
- "Colours" by Douglas Coupland, from the collection City of Glass

It would seem to be relatively straightforward to describe Chicago the way Coupland has distilled Vancouver, and yet attempting to do so reveals how tenuous the image of a city can be, how the words can slip away. The city just *is*.

Or, better put, the city *will be*. Chicago, like any major city, is never really finished, much as Gore Vidal once described William Faulkner's working on a story he had already published: it wasn't done yet. Attempting to define Chicago's growth and development thus becomes a matter of when it is considered, what perhaps arbitrary units of time we employ.

It also becomes a matter of for whom. Like any complex area of human interaction, there are competing interests that go into the shape and direction of a city. Chicago is no exception, with a history of different economic engines leading to development and expansion, to say nothing of the social, cultural and political lines that have been traced together by this economic interaction. What needs to be considered (though rarely is for most communities) is the additional

ecological and social imperatives that come into play with respect to development.

In order to highlight these questions within Chicago, there needs to be some means of capturing a healthy piece of the metropolitan area for study. Transportation is a convenient choice, with an eye towards the importance of transportation – rail, automobile, and airplane – for Chicago's development. For the scope of this project, the Interstate system will be the best choice, given that it covers a great deal of distance and joins many communities throughout the region. The timing of its construction, too, is highly relevant for the purposes of this study. Interstates 80 and 88 parallel each other in a general east-west direction, and as their major development occurred in different eras, they provide a useful method of comparison. This, of course, could be repeated with the other major arteries in the region, as well as be applied in many other metropolitan areas. This confluence is not unique to Chicago.

The focus of this study will be the development that has occurred along the Interstate 80 and 88 corridors, which experienced major development at different points economically, though both also continue to be shaped by trends shaped by capital velocity and the political, social and cultural after-effects of the movement of capital. By understanding the forces that have shaped the city-region of Chicago as it is now, we can then begin to propose a course of action for the future to balance the goals of economic, social, cultural and ecological well-being.

In order to get to this point, there are a number of terms with which the reader must be comfortable. They are taken from a variety of sources and fields, and are synthesized here in the spirit of a multi-discipline solution to a complex situation. While this project comes primarily out of a humanities perspective, there is also ample material integrated from a variety of the social sciences, especially in urban planning, architecture, landscape architecture, and the emerging field of landscape urbanism. These similar but distinct areas provide much of the language this project will use to visualize and subsequently understand the complex processes involved in an urban metropolitan area.

Terms & Concepts to be Used

The first main idea that will appear repeatedly throughout this study is that of the global city (also referred to as a world city, though the global moniker will remain for this project, as this hints at the primacy of economic activity in the formation and continuation of the urban form). First attribution to the concept can be given to Sir Peter Hall, with subsequent developments by Saskia Sassen and John Friedmann. In short, Hall's premise is that there are new, and in many ways supra-national, centers of power that combine the emerging global model of capitalism with historic centers of trade and culture. Hall puts it more succinctly, noting back in 1966 that, "[t]here are certain great cities in which a quite disproportionate part of the world's most important business is conducted" (23). He then credits Patrick Geddes for christening

them as “world cities” (ibid), thus setting up a similar family of phrases in use by theorists up to this time.

Saskia Sassen, in *The Global City: New York, London, Tokyo*, further refines this by organizing the notion around seven hypotheses (mentioned with brevity here): the geographic dispersion of economic activity (read: globalization) creates larger organizational structures for corporations, necessary for the increased complexity of chains of production and consumption; these functions eventually require outsourcing to specialized firms; the city itself then becomes an “agglomeration” of specialized talents, creating an urban information center; as specialized services aid corporations, the location of their headquarters becomes a matter of increased flexibility; the support service firms need to have partnerships or affiliates on a global scale, thus increasing interconnectivity and global networks; the model of attracting and maintaining talent in specialized firms results in a regional jump in income inequality; and informalization of certain economic areas in the face of high-profit specialized firms becomes more normal, creating a secondary level of economic activity (xix-xxi). This further complication of the characteristics of a global city-region lend a depth that identifies some of the economic and social activities that occur and how they come to that point.

John Friedmann goes a step further, noting that the idea of a global city is not one that is a binary: cities are not in the position of being either global or non-global. Rather, the notion of a global city-region is that of a spectrum,

where different populated areas fall on different points, showing a varying degree of global city-region-ness. Identifying a global city-region in Friedmann's terms is to put it at the top of a hierarchy, with the cities Sassen notes (New York, London, Tokyo) atop the list, to be joined by Mumbai and Shanghai in the present. Below this would fall centers for large national economies, such as Paris, Sydney and Seoul. Further below would be regional centers including Chicago. These links could then be brought down further, including major industrial cities, regional industrial cities, regional centers, and the amorphous notion of the rural (which will be addressed in the following section with the work of Cronon, amongst others).

One other point to make about the shape of cities is to introduce the idea of horizontal growth into the conversation. This concept is familiar to most, and is frequently given the name sprawl. Indeed, many of the scholars in the urban planning field use this term, and use it with every attached negative connotation. Richard Ingersoll makes note of this in his text *Sprawltown*, stating "I am no longer sufficiently idealistic to believe that one can stop the advance of sprawl, but neither am I so cynical as to think that it is too late to revise certain practices" (7). In this lexicon, sprawl is the enemy, something that is a force for ill, destroying community and consuming land on the periphery. To Ingersoll's credit, he highlights the myth of the natural that is represented by the rural, echoing the human nature of nature from Cronon. Contrast this with Joel Garreau's *Edge City*, however, and the picture becomes

much less clear. Garreau is optimistic about the end-results of our current development, stating “[i]t is the creation of a new world, being shaped by the free in a constantly reinvented land” (15). Whether we side with Ingersoll’s academic approach or Garreau’s journalist wit, what we cannot escape is that this phenomenon is young, it has no history, and we cannot predict its future with a great degree of certainty. What we know is that it is indeed happening, and thus the author is attempting to adopt as neutral of a term as possible. As the expression horizontal growth comes up in the literature to distinguish from the vertical growth of the industrial age, it is sufficiently neutral to examine without prejudging.

By understanding the idea of the global city-region, we can begin to see not only how Chicago fits into a global hierarchy and the effects that has wrought in development and infrastructure, but also the reasons why it is in its current state and how it is likely to develop further into the future. More specific suggestions along these lines for Chicago will follow in the review of literature.

In order to understand Chicago, however, we must understand just what exactly Chicago entails. In order to take in this scope, we must employ the term city-region, analogous to metropolitan area. When we speak of Chicago, we can easily speak of the seven-county area surrounding and including the city proper. In fact, it is very much synonymous with Sassen’s explanation of a core corporation and the ancillary support firms that help it to function. Chicago’s

suburbs would not exist without the city's original presence, and yet the city depends on the interconnected network of infrastructure and facilities provided by these suburbs. Allen J. Scott, et al, note that there are now more than 300 city-regions around the world with populations in excess of 1 million (11).

These entities represent the fruits of the global city-region process, as these are, in general, areas of functioning trade and production. The authors also contend that while this is an on-going process, it represents a distinct set of policy challenges, something echoed with a different emphasis by Friedmann. Again, we will delve into these issues and their implications for Chicago in the review of literature and further sections of the project.

It would be very difficult to consider the idea of the urban or metropolitan without discovering what qualifies as the antithesis for such a space. As one of the major characteristics of the global city-region era is the increase in horizontal growth, it is easy to consider the city-region as devouring surrounding countryside, a conflict between urban and rural or natural. In actuality, nature acts as a human space, with William Cronon highlighting how the distinction between natural and unnatural is blurred in modern thought. "Ideas of nature never exist outside a cultural context, and the meanings we assign to nature cannot help reflecting that context" (35). This point, from the collection *Uncommon Ground* (which Cronon edited), becomes an important point as we look at the growth along the former periphery that is the land that borders Chicago's outlying Interstate routes.

Finally, we must identify what are the imperatives for growth and development within a given city-region. In a general sense, we speak of economy as the primary driver for growth, as it is the needs of capital and the suitability of the region for the application of that capital that determines what land gets developed for what purpose. Once these areas are established, however, a complex set of drivers determines the patterns of everyday life as experienced by each citizen. Social and political drivers each have their say. Social experience varies, and the way the city itself is shaped can have a rather strong effect on the life pattern of a citizen. By life pattern, here I mean the series of destinations and interactions that make up everyday life. Over time, differences in land use have led to different life patterns, something that we will see in our Interstate comparison. Political drivers include those who make decisions about development patterns and what they value. This is complex, as this can mean zoning within a given municipality or, as Friedmann notes, the restraint currently placed on city-regions related to their interaction with other city-regions. Friedmann goes on to call for more autonomy for cities in the future to make decisions and interact freely with other cities (xix). In either case, there are different layers of political power that have a clear effect on life patterns within city-regions.

One final term to define within the context of this project is imperative, one used repeatedly to describe the elements of desirable city-region development and redevelopment. The implication of this term is that this is

something we must do, a requirement. In a way, this is an accurate assessment of the term imperative, though it is not meant to be determinist. Rather, it is placed in the context of development decisions that are not balanced, not keeping with what citizens desire, the cultural heritage of a site or neighbourhood, and stands in opposition. When the term imperative is applied, it is in the sense that these are elements that must be honoured in the face of the economic realities of redevelopment, and help to ensure a broad variety of stakeholders are considered and represented in all development decisions.

As many of the theorists contained within this study are looking forward, it is also appropriate to foreground a fourth imperative, one that is the counterbalance to the economic imperative. Ecological concerns are of paramount concern to many leaders of business, government, and society. With a world population that has grown dramatically over the course of the last century, more stresses are being placed on our land to produce resources for daily consumption. Add to this an increasing standard of living around the globe (something that is very hard to view as a negative, but must be noted as an added stress on resources) as well as a preponderance of horizontal growth in the information age that has resulted in additional land going from lower population density to higher population density. Such an equation, with resources being consumed at a rate far faster than can ever be sustainable, must eventually be balanced, and it is in the best interest of society to find a

comfortable, equitable, and long-term balance. We are in a position where this is still possible, and this gives the scope of this project a great sense of urgency.

Literature Review: I – Philosophy and a Foundation in the Humanities

This project began in fits and starts, the product of a collection of interests and observations, matching theory to practice in the surrounding world. There are specific texts that were part of the genesis of this project, and they will be noted at their appropriate time in the literature review. To lay a proper foundation upon which to build this work, however, requires a certain degree of theory, which by and large parallels many of the imperatives mentioned in the previous section and are born out of the tradition of the humanities. It is this work that allows the exploration beyond my home discipline to be incorporated and processed, the framework if you will. In order to effectively define the four imperatives of city-region form and function, such a process of understanding these underpinning concepts is essential.

This project as a whole owes a huge debt to Edward S. Casey, and specifically his work *The Fate of Place: A Philosophical History*. The temporal organization of this work lends to a helpful comparison over time of how we have considered space, allowing us to match up the movement from the agrarian (and whatever else we may refer to the millennia before the Industrial Revolution) to the industrial to the information. It is in these latter two areas

that is particularly of help. While the earlier sections, from Hellenistic thought through the Middle Ages (with a particularly ironic move to the concept of infinite space – one we may well need to reign in considering resource consumption; but that argument is later) are useful in establishing the very core questions that form how we view space and place and how they interact, it is in the sections ranging from Newton through to modern thinkers such as Foucault and Irigaray where we find the applicability of space for this project.

A brief pause is necessary here, so that we may include the work of Yi-Fu Tuan, whose treatises on these subjects lends to this project some definitions on place and space. In his celebrated work *Space and Place*, Tuan shows the interactive, perhaps codependent nature of place and space by noting that space is between two or more places, and that a place requires space to exist. This is a radical condensation of the text, but it comes with one other note, one that we will do well to remember when looking at our research site. Tuan notes that, “[i]n the large literature on environmental quality, relatively few works attempt to understand how people feel about space and place, to take into account the different modes of experience... and to interpret space and place as images of complex – and often ambivalent feelings” (7). Here Tuan gives us one bit of disciplinary hope, combining the skills of the social scientists, the environmentalists, the media, and in particular the arts and humanities to build a complete conception of place and space. This hybridized approach holds special significance for this project in the way this project draws on a variety of

fields in an attempt to capture an explanation of the present and the course of the future for the research site.

Casey begins with an important point about the introduction of modern space and the thought of Gassendi, Newton, Descartes, Lock, and Leibniz, one that continues to ring true in present-day considerations of space: “[e]ach of these thinkers – with the exception of Locke – was also a prominent scientist, and this double identity is no accident. To assess place and space in the first century of modernity is perforce to take into account scientific as well as philosophical thinking” (137). While there are exceptions, this scientific worldview holds a great deal of sway, manifest in the confidence put in quantitative analysis. Casey’s point on space and the scientific mind underscores many of the decisions planners face now in how space is used, minus the cultural contexts that are surely present. In particular, the articulation of Gassendi preferring the quantitative nature of a space over Aristotle’s qualitative nature (141) highlights much of the spirit of the age as well as a reminder of how philosophy and science are used in tandem to tackle such complex questions within this early modernist period.

Further work from Casey delves into Descartes and the very important point that place is context-sensitive. Rather than being purely measurable or purely arbitrary, Descartes notes that “[p]lace is a hybrid entity: as volumetric, it is like a thing; as situational, it is unthinglike and purely relational” (161). It should also be mentioned here that Descartes gives an important distinction

between space and place, opining that place is subordinate to space and matter in that it is particular while space is of a more uniform nature. As we try to distinguish between places with this project, this point becomes of significant philosophical importance. The midpoint for place was lost, however, as time went on, as the argument that space is relative won out through Locke and Leibniz. The end of modern space is then highlighted by Kant, noting that there is only one space, not spaces, and it is universal (193). We will do well to remember this when trying to draw borders around cities, regions, or any other political delineation. To attempt such absolute bordering is to ignore the interconnected nature of the global city-region era.

By the time we get to Heidegger, Casey has gone from declaring the notion of place dead in the Western tradition to slowly being reexamined, arrived at through distinctly post-modern methods. Here we will break from Casey, temporarily, to consider Heidegger's work without the filtering of Casey: while he is important for providing some context for Heidegger's work, the questions Heidegger asks must be considered carefully and from their original writings. We will return to Casey's work for as close to a contemporary account of space and place as is possible.

The works of Heidegger are critically important to this project: *The Question Concerning Technology* and *Building, Dwelling, Thinking*, both of which are revised lectures, as well as his earlier work *Being and Time*. Both of the former works occupy Heidegger's post-war period of productivity, with the

former providing a way to look at how we consider landscape with respect to human space. *Being and Time* provides some very tangible assistance in defining boundaries that are at the same time acknowledged as porous, interconnected, and arbitrary.

In *The Question Concerning Technology*, Heidegger raises the idea of *gestell*, or enframing as the essence of modern technology (325). With this, the idea of *bestand*, or standing reserve, is raised (322). Here Heidegger posits that the entire universe can be seen through the lens of human use. Indeed, this foreshadows the work of Cronon et al regarding the myth of the natural world. With standing reserve applied to landscape, we run into the idea – and the responsibility – that all landscape, once it is considered in the realm of use or non-use, becomes human space. We enframe it based on what it can or cannot be for our purposes, with some of it applied, and some given that odd energy state Heidegger describes as standing reserve: *we will use it for this; we may use it for this; it is valuable for this*. What distinguishes modern technology is this conversion to standing reserve, over the former regular technological approach, which maintained a subject-object relationship (326). This disconnect through scale and complexity is parallel to the development of the modern city-region form.

An example of these concepts would be to consider the lakeshore of Lake Superior. Superior is one of the world's largest sources of fresh water, yet it has very few densely populated areas along its borders. Rather, the industrial cities

of the United States sprung up on other Great Lakes (or in other geographic regions). Superior supplies water to many, many municipal sources, acts as a source of fishing revenue, is a major transportation route for taconite pellets and other goods, and is a growing source of recreation and tourism dollars. While there are many uses present – and some sometimes in conflict, especially if plans to divert water to the desert Southwest were ever put into place amongst other future projects like diverting the Columbia and Yukon Rivers (Reisner 10) – all of them enframe Lake Superior for active use, and some set it aside as standing reserve for future uses or for longer-term benefit.

The difficulty more contemporary philosophers have found is in finding something beyond the human space, something that is that elusive natural. Cronon, et al, should feel supported in their case that nature is inherently human, even if vice versa is often obscured. What then shall we do with these spaces, these human spaces? Heidegger attempts to answer this question with *Building, Dwelling, Thinking*. David Farrell Krell explains in his introduction to this piece that within the context of this line of thinking, to build and to dwell are both connected to the notion of being. Indeed, Krell notes that the verb “to be” is derived from a meaning of being with place (345). Heidegger opens, in fact, by pointing out that he does not mean architectural rules with his lecture, nor does he attempt to look at buildings as art or a collection of construction techniques (347). We will leave this notion for later in this review with works by thinkers such as Christopher Alexander.

Back to the philosophy at hand, Heidegger, in the opening paragraphs of *Being, Dwelling, Thinking*, highlights the need for the concept of landscape rather than an architecture of individual buildings. By noting that we build to dwell, but that not all buildings are dwellings (348), he shows how these spaces in between or dwellings are, too, living spaces. By noting that one is an end, the other a means (much like the subject-object relationship of conventional technology), Heidegger grants that there is a process nature to this relationship. Yet, as conventional technology is replaced by modern technology, Heidegger notes that this is not all there is to the relationship. This foreshadows Mostafavi and Leatherbarrow's work on a building never being complete, how weather is an essential component on what a building *is*. This is to get ahead of that argument, however. Heidegger proceeds to dismantle the language of building, noting that linguistically, it is a component of dwelling rather than a predecessor (350). Additionally, dwelling is to be on Earth rather than to be within a given space, opening up not only the concept of the purpose of a building, but also providing an early bit of support for this project's forthcoming argument on the nature of community and what it means to be a community member.

While Heidegger delves either into metaphor or myth, his classic example of the building of a bridge is central to how this project may be considered and must be mentioned here. The act of constructing a bridge does not only create the bridge, but it also changes the nature of the land upon which it is built, the water (or whatever other impediment for convenient human travel exists), and

the surrounding areas (354). Before the bridge exists, there are, with full certainty, two areas of land separated by the impeding boundary. The act of placing the bridge not only makes the bridge, a space over the previous impediment that no longer impedes, but it also redefines the nature of the banks to which the bridge is anchored, changing their use, their meaning, their enframed nature. Indeed, the surrounding land then undergoes a similar transformation, as these two separated swaths of land can then become one community, to be used in a different manner. My home is in this position, being that it is on an island connected to the mainland by only one bridge. Without that bridge, the community bordering the corresponding community opposite the bridge would not be viable, and the waterway in between would be seen much more as an impediment.

Another important term introduced at this point is *locale*. A locale is a specific point, such as the above-mentioned bridge, with space connected by it (356). As such, a locale facilitates interaction between spaces, and a complex web of locales forms the city-region this project examines. Untangling this knot is an infinitely complex conundrum, as while all interactions between locales are possible, not all are actively in use for a wide variety of reasons. Take for example a stadium built with the idea of surrounding it with entertainment and dining venues, all to form a commercial district apart from previously established avenues of commerce. This new cluster of locales may be a success or a failure based on numerous causes, and pinning down those reasons is not the point of

this exercise. Rather, the removal of a central feature – such as the franchise that may make use of the stadium – would hurt the collection of locales, perhaps making the spaces between this locale cluster non-traversed. The entity itself, the stadium, is still standing, still adequate to the needs of the population and able to provide economic opportunities to the locale cluster, but it is unable to do so, as it has been differently enframed.

Heidegger finishes by noting that space and humans are not in opposition (358), but rather one occupies the other. Space is not something separate, not an object nor a state of being. Rather, it can be viewed as a facilitator, something in which humans and locales exist and interact. This point gives reason to the interactions that are brought about by economic activity and spurred on by social and political imperatives. It is the ecological, also an interaction of space, locale and human, that is also given shape by these theories.

Being and Time, the major work from early in Heidegger's career, is of particular help in defining such amorphous terms as region and neighbourhood, as Casey notes (285). Specifically, region is an important term as it allows us to understand given areas that may have complicated political boundaries. The Bremen region of Interstate 80 will provide several examples of this kind of partition. Heidegger notes, "[i]n the region of' means not only 'in the direction of' but also within the range of something that lies in that direction" (136). It is, in this sense, a reciprocal arrangement, one that requires further complication,

however, as a region only requires range, and range is a matter of time rather than distance, as any point on the globe is essentially accessible. Whether or not it is economically viable to access that point is one thing to consider, of course, but it is not the sole consideration in placing constraints on the term region.

Indeed, first we must consider the point Heidegger makes about how a region is not constructed first (137), but rather there are individual places first and they exhibit a sense of interconnectivity through the experience of being in the world (*ibid*). So it is not the region built that creates it, but rather in this context it is the experience of it being lived in that creates the region. This creates feedback between being and dwelling, as there is then more development of the region itself, helping to consolidate what it is. This is further complicated when we look at the concept of the neighbourhood, or other, smaller subsets of a region that are still groupings. Is a neighbourhood a region? In a way, yes, if it is lived in such a manner. The neighbourhood as a region becomes difficult, however, in the non mixed-use zoning patterns of the information age city-region.

In this sense, as we will come to understand the city-region, it is a matter of individual proximity that creates some of the borders of the region regardless of scale. That is, it is the act of living within a region that creates its boundaries. Consequently, there are certain elements that create a region, something we will come to realize as the nodal structure of city-region

development in the information era. This more concrete application of the ideas of building and region will follow after we finish with the concepts of space and place.

Returning briefly to Casey for more contemporary considerations of space and place, I would be remiss to not mention the influence of Foucault on the notion of space. What is significant is that Foucault notes that space has a history (297), and this distinction means space has been made even more sensitive to context, this time of the experiential. This makes space itself not only subject to the variety of individual experiences and life patterns contained therein, but it is also predicated on the valued version of history that prevails over that given space. Casey notes, however, that there are problems with Foucault's larger thesis, and it is ultimately incomplete (301).

We get some support for the ecological imperative for the city-region in Casey's relation of Irigaray. As Casey relates it, Irigaray is most interested in the way place and gender interact. Her point is that place has been considered genderless for so long that the treatment of it as female to be used has been lost (327). In this model, as in Heidegger, place is looked at through the lens of how it can be used, productive, rather than how it can be experienced. What we have in essence, then, is the economic imperative standing as production – the standing reserve of Heidegger, not advocated but realized – standing opposite the ecological imperative as experiential of a place or places.

With a foundation for both the economic and ecological imperatives assembled, let us turn to the two mediating imperatives in the shape of the city-region: the political and the social. The former is expressed through habit and motion through the life patterns of citizens, while the latter is both the effects of the other imperatives on place and a major source for the process of the redevelopment of places within the city-region.

Let us begin with the political and its expression through life-patterns. This is very much the realm of Hannah Arendt and her argument that all human action is political action. In *The Human Condition*, Arendt begins discussing the political and/or social nature of humans by noting, in support of Cronon, "human life in so far as it is actively engaged in doing something, is always rooted in a world of men and of man-made things which it never leaves or altogether transcends" (22). This is significant for again taking into account what is human space, but even more so in light of Arendt's notion that all action is in essence political action. As Margaret Canovan notes in the introduction to the second edition, however, Arendt's treatment of the social is contentious, as it is viewed by many readers as dismissive compared to the heroic action that is inherently political (xiii). This is the balance that we must strike between the social and political imperatives that mediate the economic and ecological imperatives in the city-region. While any dismissive nature that may or may not be in Arendt's work is significant from a philosophical standpoint, the idea that they stand apart as distinct modes of being is sufficient for this project. But if Arendt has

defined all action as political action, what then is not political? Where does the social come into being? Is there such a thing as non-political action, or is it only inaction that can be social? This is an absurdity, of course, as inaction would disallow interaction, so these definitions must be refined to see how these imperatives may be understood.

Arendt does provide a solution to this conundrum, one that is continued further in de Certeau and into the studies of the modernistic city of Jacobs. Arendt notes how action and activity are sufficiently different notions that there may be other human activities that are not action (22), for earlier Arendt notes that human activities may be divided into work, labour, and action (7). In this sense, Arendt means labour to be those things that govern the human life-cycle. With labour established through this frame, we can allow that leisure activity as diversion is an essential element of what it means to be an overall healthy human, the social beings we are. Work is then the unnatural processes in which we engage, not directly attributable to our life-cycle. The distinction is noted by Arendt where she highlights the oddity that the two words, so often used synonymously, continue to co-exist, with one being the work of the body, the other the work of the hands (80). This latter definition can be modified for application in the information age, where the work of the hands is increasingly the process of finger patterns rather than how we might regard industrial-era work.

Arendt's notion of action, then, as political comes from her noting that action and speech are closely relating, with speech as a form of action, and one that renders each individual human as distinct (179). What remains to be seen in the information age city-region is whether or not these distinct voices are heard, or even need to be used, as labour and work occupy the central portion of everyday life. As we get into Friedmann's notion of the global city-region in particular we will see how political power is concentrated and dispersed and how the city-region population is or is not a part of the power.

In the introduction to the second volume of *The Practice of Everyday Life*, Paul Leuilliot is quoted by de Certeau et al stating that everyday life is "what we are given every day (or what is willed to us), what presses us, even oppresses us, because there does exist an oppression of the present" (3). Here we get a sense that Leuilliot believes a great amount of our daily movement (taking into account Arendt's labour, work, and action with such a term), is governed by external forces, whether literally based upon what we must do within a society to maintain membership status within that society or what is culturally expected of us. With such an idea we get a direction for the genesis of the social imperative that exists so fluently within the life patterns of the city-region.

Yet, this is incomplete. Pierre Mayol (primary author of this section, as de Certeau's work was continued by his students after his death) sets out in the subsequent chapter how culture is an additional driver of the social imperative, noting that it is the collection of cultural practices for citizens that guide them

along these life patterns (7). He also notes that there is a disconnect between the social scientist approach of quantifying the built space and the qualitative and frequently colloquial experience of the participant-observer (ibid). Mayol proposes a middle path, something we will explore further in the methods and methodology section of the following chapter.

Of more immediate concern is Mayol's definition of what is a neighbourhood, picking up where Heidegger left off with the definition of the region. In developing this definition, Mayol begins by making the assertion of proximity for the dweller (10) – implying a residential nature to the neighbourhood and giving primacy to the neighbourhood where dwellers do indeed proceed on foot. This must be additionally complicated in our era of low-density growth and mono-zoning development, but that is for later. The concept of the neighbourhood for the dweller is additionally complicated by the frequency of the experience of the neighbourhood, one that adds to the intensity of the personal connection to the neighbourhood in a social sense by the dweller (13). In the practice of the neighbourhood, Mayol insists that a maximum amount of time is dedicated to a minimum of space (11), again an urban and early suburban ideal, but one that proposes an ideal of proximity and gives the neighbourhood a tighter sense of purpose than the region. This will prove a very crucial distinction when looking at information age low-density development, as such proximity for daily needs – and the subsequent stamping of social belonging – are frequently absent from such neighbourhoods.

Mayol finds a kindred spirit in Jane Jacobs, her tome *The Death and Life of Great American Cities* providing a lengthy support for the kind of maximum use in minimum space ideal that Mayol points out is the practice of the neighbourhood. Jacobs adds an additional point about the neighbourhood – specifically the city neighbourhood – that is important to note when we talk of the overall health of a neighbourhood. It is not enough for the neighbourhood itself to be frequently experienced as Mayol suggests, but Jacobs notes that it must be experienced by a broad variety of dwellers, with different needs, different goals, and most importantly, different schedules to avoid neighbourhoods that are busy only during very selective times. She illustrates this point by examining the city park and what makes for a “healthy” city park. “This mixture of uses of buildings directly produces for the park a mixture of users who enter and leave the park at different times. They use the park at different times from one another because their daily schedules differ” (125). Expanded to the idea of the neighbourhood, Jacobs notes the mobility of city dwellers (151), something that hurts the definition of the term as given by Mayol. It is, in fact, the rich choices made available by cities that make them cities to Jacobs (ibid), something that will further complicate the notion of the city-region and its *raison-d’être*. But if we expand the park metaphor to the city-region neighbourhood, with different areas in use at different times forming a healthy, sustaining web of social and economic interactions, we can begin to see what dynamics are at play for these areas of most dynamic life patterns.

Jacobs makes one additional clarification that will prove useful to our understanding of the social imperative: it is that the neighbourhood can be a scaled thing, something that she expands out to the size of an entire city (or city-region in our current lexicon, as the city itself as a distinct entity is all but dead), to the size of a district within a city, or down to the level of a street within a district. There is a power relationship between these, as while there must be action in order for the street-level neighbourhood to be successful (whether it be in the form of active merchants, concerned citizens, or any other form of speech and action undertaken by dwellers), it must also have the support of the district and ultimately the city itself should the problems facing the street-level neighbourhood prove too powerful to be handled by the smallest scale of neighbourhood alone. Thus, in the midst of this kind of social interaction in experiencing the everyday neighbourhood, we find entwined both the political concept of action and the economic activities that support these street-level neighbourhoods much as larger shopping areas (to say nothing of other district-level economic engines) support districts and major economic points such as corporate headquarters and support firms provide city-scale economic activity.

If we return for just a moment to Jacobs and the example of the park, we can also see how the ecological imperative is important, and how it is all too frequently poorly handled within a city-region. Indeed, Jacobs likens the thinking regarding open spaces in cities – a hallmark of the information age city-

region – as the way savages would fetishize mystical powers (117). Such random application of open space, and the assumption that by its existence it will be put to good use is to ignore the practice of the neighbourhood. If the ecological imperative is only obeyed when it suits a city planner rather than being an organic element of the dweller's everyday life, then it is a failure, as much as economic failure can be seen in mono-industrial cities that have lost their industry or competitive edge; as much as social failure can be witnessed in the neighbourhood which has no dweller investment in its continuation, where exploration on foot is not just undesirable, but nearly an impossibility; and in political failure, where the street and district-level neighbourhood is not supported in its challenges by the city-region governmental structure.

These four imperatives come together not only in this failure, but in the successful everyday life patterns of dwellers and other inhabitants, whether in labour, work, or action. With Heidegger's conclusions about space and place, we have come to not only understand his prior work on defining the region, but also how the information-age city may be viewed through the lens of enframing by zoning. Such action creates the space whereby economic activity may occur, as each space is viewed not only for what it is (if there indeed can be such a state, much to Iragary's dismay, surely) but primarily for how it can be put to use. We also can see how such places are formed and how they exist spatially thanks to Heidegger's work. By noting that all spaces are essentially human spaces in the way they are placed into standing reserve, we gain a different

understanding of the ecological, how it may be seen as inherent in place rather than as a political goal. With Arendt's definitions of human activity, we can delineate between those which are political through action and speech and those which are either work (supporting the economic imperative) or labour (as leisure supporting the ecological and social imperatives). With Mayol and Jacobs explaining the neighbourhood and what it means to be a dweller, we get a sense of how social interaction both works with the political imperative in speech and action and also the economic and ecological imperatives present on different neighbourhood scales.

Literature Review: II – Defining and Expanding the Imperatives

As we have now established the support for these four main imperatives in the context of this project, it seems an important time to define them briefly and how they interact with one another to form the rationale for city-region form and function.

1. Economic – This imperative is the primary driver for the populated shape of the city-region, with economic activity owing its presence within a city-region to a complex interaction of places and their positioning within space, a confluence that creates advantages and disadvantages over time with differing life-

patterns within and without the city-region. In the information age, this imperative is related to accessibility to the global city-region network and the availability of support firms and a highly skilled workforce.

2. Political – This imperative operates around economic activity through

human speech and action. It both follows the economic imperative but may also act as a source for attracting new or different economic activity to a given city-region. It also provides a measure of non-governmental political action through citizen involvement in a wide range of city-region action. The political imperative is defined by speech and action that is not work (economic) or labour (leisure, day-to-day necessities, family).

3. Social – This imperative operates in the daily life patterns of the dwellers

within a given neighbourhood, district, or city-region.

Always through a cultural lens, the social imperative both promotes and constrains interaction between dwellers based on other imperatives and the physical limitations of space.

4. Ecological – The final imperative, the ecological imperative, is steeped

heavily in place. Unlike the economic imperative, which is able to use place in order to create opportunities for economic interaction, the ecological imperative places a constraint on how a place – and the space in which it exists – may be enframed. Whether these limitations are acknowledged or not is immaterial in the ecological imperative, so long as their existence is granted.

Conversely, the ecological imperative also acknowledges that all space is ultimately human space, and that to try to set aside space as beyond human is a fruitless exercise, for as soon as it is considered for how it may be used (or not used), it becomes an inherently human space.

With these four imperatives theoretically grounded and defined for the purposes of this project, let us build out from each into the disciplines related to understanding the city-region. While there is of course overlap between all four at all times, we will take their extensions individually for an orderly approach to the philosophy behind this project. Before this, however, we must look at the history of the city itself, explaining how the city-region came to be before understanding what it is and where it is going.

This project owes a debt to *The City in History* by Lewis Mumford, a project that provides a wealth of background material on the formation of the city and raises some questions about its current form – as well as questioning some tenets of the notion of the city-region. Tracing the city from its origins in ancient villages, Mumford finds there to be a deeper, more sinister development in the formation of the city: rather than being for sustenance and community as the (admittedly idealized) village was, the city was predicated on exploitation of resources and war, a much larger economic engine that brings resources unto itself (111). Such an inconspicuous start for the urban form would be a cause for concern if its contemporary form led directly to the aforementioned conflict. It is for another project to handle the exploitation of resources and any form of economic warfare that may be taking place. Mumford also mentions the myth of the megalopolis (525), bringing up historical examples to highlight how this increase in arable land and spread of the urban form has traditionally been the last step before the fall of a civilization. Citing the example of Rome, Mumford points out how there is by necessity a stage of fall before a redevelopment can begin (527).

These are worrying claims, if for no other reason than they speak ill of our future survival within our current urban form. Yet, we must remember the idea of the global city-region at this point, and how it is interconnected with other global cities. In essence, these cities are a network now unlike the nation-state to which they might have previously belonged. We cannot fault Mumford

for this, as this development occurred after his work, but to look at cities as autonomous or as actors within the concept of the nation-state alone would be a mistake.

Instead we turn to Spiro Kostof's twin works, *The City Shaped* and *The City Assembled* for an examination of the shape of the city and thusly the city-region. In the former work, Kostof analyzes the reason why cities are shaped the way they are. Indeed, he recounts the ideal of the pre-19th century city as laid out once and as the final shape, usually resembling something geometric (43). Contrasting this is the idea of the unplanned city, the one that is shaped merely by place and the needs of the life patterns therein (ibid). This latter city is surely the one that rings as more true to the contemporary reader, for what city, save one central to the purposes of a given nation-state could have any authority that can rule over it, to determine its shape? No, the city itself now has too much autonomy for the planned city to exist outside of these nation-state needs. The example of the Burmese junta constructing an entirely new capital and abandoning Rangoon as a seat of political power comes to mind. Otherwise, just due to the nature of capital velocity, the city must be able to be flexible.

Another major point for our purposes from Kostof relates to the way the city itself appears. The skyline, that simple notion of where city and sky meet, is complicated by the notion of public vs. private skyline. Beacons such as religious or government symbols (or the Eiffel Tower, as a sign of progress)

were inherently public because they were not meant for exclusively private use, or were not meant to be inhabited at all (279). On the contrary, the contemporary skyline – such as it exists in an urban core as opposed to the city-region – is a private space, whether it is for the corporation, the specialized firm, or the citizen. As such, we need to reconsider how we view the idea of the landmark in parallel with what we consider to be natural or artificial.

In *The City Assembled*, Kostof collects the forms of the city and traces them through history. Of particular use to this project is his opening piece on the edge of the city. Beginning with the idea of the city wall, making up for any geographic deficiencies in city defense, and continuing through to the edge city and the birth of the idea of the city-region, Kostof seems to wax nostalgic towards the end of his argument, pointing out that the new borderless urban form is more significant for it not containing us the builders as opposed to what is already built (69). Yet, this again goes back to the idea that the city is not a separate entity as a component of a nation-state, but rather exists as part of a network of interconnected cities. As such, to have a fixed border for such a city aside from geographic constraints would be absurd. Yet, it is through this realization from Kostof that we note that the city-region we have today is something distinct from the city in history, a new idea built on the infrastructure of the traditional concept of the nation-state city.

On the opposite end of the size scale as Kostof is Christopher Alexander et al, and their massive tome *A Pattern Language: Towns, Buildings,*

Construction. Here we have a remarkable effort to establish what it is that not only makes different scales of region function, but even the individual building, that one task Heidegger specifically sought to avoid in *Building, Dwelling, Thinking*. Alexander begins with the notion of towns, claiming that “[m]etropolitan regions will not come to balance until each one is small and autonomous enough to be an independent sphere of culture” (11). This would be an initial cause for concern, seeing as the direction of the city in an economic sense is towards norming and interconnectivity. But by noting that each must be an independent sphere of culture, here we gain something different, an additional distinction for place. Whether or not, given an interconnected media environment, such independent spheres are possible is a question for another project. What is of tremendous use for this project is the way Alexander then breaks down the sub-groups, moreso than Jacobs or Heidegger do. For their analysis, the region encompasses the major city, which is made up of (in the city-region) or is surrounded by (in the classic city-border sense) communities and small towns. These are all composed of neighbourhoods, which contain house clusters and work communities, composed of families and work groups (4). And while the political and economic imperatives necessary to develop places in the manner Alexander suggests is not included in this volume (7), it is their partitioning of place that is of major use to us. Additionally, it is a source for suggesting future direction. With the concept of a language for expressing how to solve certain problems within place and spatial arrangement, Alexander

is suggesting that the arrangement itself is a hypothesis, without declaring that the problem being addressed has to be of a particular kind (xv). This provides this project space when we address our research site to propose solutions that engage one, some, or all of the imperatives depending on the particular problem. The issue of agency will come up at that time as well, considering the nature of a problem is always *for whom*.

Kevin Lynch's classic work *The Image of the City* deals with one final aspect of the nature of a city or city-region: how it is experienced by the dweller. Lynch gives precedence to those who live in a given city over those who visit, a difficult situation in the global city-region era where tourism is such a major component of a given place falling closer to a global city-region across the "global" spectrum. This is evident in Lynch's discussion of the nature of edges, something that Kostof has already complicated significantly. Rather than being involved in that discussion, Lynch takes on the image of Chicago itself as a closing point, noting that Lake Michigan is a strong edge for the city, one that visually brings to life the recreation space, the pathway, the private space, all of these forming a compelling image (66). Lynch is considering Chicago the way an art critic may scan a canvas. While this might seem like a superficial claim (or a superficial assertion on the part of this project's author), it also provides the space for the experiential moment within the city-region as being sufficient justification for shape and form. Lynch makes the subsequent point that there are certain nodes interspersed throughout a city that provide places of

accessibility to the rest of the city structure (72). This nodal structure will prove prescient by the time we get to the new structure of the city-region and how decentralizing the life patterns of work and labour creates new avenues of accessibility.

Why then is this project necessary? Why indeed is there such a pressing need for this discussion now? It is because of the rapid ascent of the urban at the same time the city-region has taken hold and low-density growth has become the norm. We have simultaneously a booming urban population and a tendency to use more land with the life patterns of that population. For example, according to the Urban Age Project, in a little over a century, we have gone from a world population that is 10% urban to 50% urban, with an overall six-fold increase in population (60). As an aside, in 1950, the Chicago metropolitan area was the 9th largest in the world; by 1985, Chicago ranked 19th, and was well outside of the top 20 by 2005 (ibid). This is not to say that the region is not growing, but many developing nations have had surging populations that have surpassed Chicago's growth rate. While this growth rate alone is alarming enough, the same group forecasts a population that is 75% urban and just shy of 10 billion by mid-century. The choices we make now will do much to determine the shape of our urban spaces for the defining resource moments for our species. Ten billion individuals trying to increase living standards leaves us at a resource crunch, something we will explore with greater depth in the review of ecological imperative literature.

Let us then return to the idea of the global city-region with the idea of the economic imperative in hand. Hall, Sassen, and Friedmann set up the theory that there is a world network of global cities, and that these are the epicenter of not only the majority of trade and transaction, but also house a disproportionate amount of the planet's intellectual talent as a result of the support firms that develop near corporations that require specialized assistance that is not in-house. Remember also that the global city-region is more of a hierarchy or spectrum than a binary situation of belonging or not belonging. With this, we can begin to assemble a brief history of the economic imperative in action as globalization.

The idea of capital velocity is center to the discussion of the economic imperative. To give an indication how quickly capital may move within the interconnected network of global city-regions, consider the rapid urbanization of China. According to Edward Burtynsky in the film *Manufactured Landscapes*, China has gone from 10% urban at the end of Mao's stewardship of the country to a projected 70% urban within the next 20-50 years (Baichwal). As an idea, the scale of this transition is massive. In practice, it is unprecedented in human history. Take, for instance, the effects that can be witnessed in the Pearl River Delta region of China. Friedmann takes note of how the changes to the previously agrarian rural areas surrounding the Pearl River have been a different kind of urbanization than simply having rural dwellers flock to existing urban centers. Rather, the industrialization of the region has created its own urban

form (China's Urban Transition 35). This was a planned move, with the pressures created by prosperity in cities attracting rural citizens leading to a real possibility of massive city overpopulation. As it is, Shanghai's population, for one, is exploding in a way where hundreds are migrating there per day (Baichwal). The Special Economic Zone of the Pearl River Delta provides proximity to the different economic and social systems in places such as Hong Kong and Macao, both nearby, while the Philippines and Indonesia are not far from this delta either. In fifteen years, this territory went from virtually no inhabitants to three million (Koolhaas et al 313).

This case is being repeated throughout the so-called developing world, as by 2015 27 of the 33 largest city-regions in the world will be in these territories (ibid 6). The competition between city-regions is some of the story, though there is not a finite amount of wealth involved, as each stage of development creates more. The question becomes how that additional wealth is distributed between city-regions and what city-regions have to do to remain relevant in the global city-region era.

In *The Prospect of Cities*, Friedmann maps out the differences between the city marketing model of city-region competition and quasi city-state cooperation. City marketing can best be summed up with periodic events such as the Olympics or the World Cup, a situation that quite baldly puts city-regions in competition with one another for city-region promotion and tourism dollars. Put in a binary regime, Friedmann notes that while the city-marketing model of

urban development deals primarily with the core city for a short-term payoff, the quasi city-state model looks to the entire city-region over the long-term (20).^{*}

In this definition, the city-marketing model is concerned with shorter-term economic benefit by attracting global capital, allegedly at the expense of other city-regions (ibid). The concern that a city-region has by not participating in this kind of marketing is that they may be left on the sidelines in the quest for global capital. Some city-regions have to worry about this more than others, as the largest of the global city-regions have inertia on their side for attracting additional investment.

What is interesting is that the notion of city-marketing as a zero-sum game seems steeped in the industrial-era mindset, places from which the modern Olympic movement and the World Cup originated. If we were to take a tangible product of the industrial economy – say, the automobile – and determine the best place to produce and distribute such a commodity, then we would be looking at specific sites at the expense of other specific sites. After all, while I may be able to produce an automobile in every market where it would be in demand, it makes more economic sense to produce them in select locations with convenient access to raw materials and transportation infrastructure. Such centralizing, as we shall see, can have significant short-term benefits to a given city-region, but the city-region is then dependent on

^{*} The chart Friedmann uses as a heuristic has an error regarding time frame, switching short and long-term benefits. It is my assumption that this was an accidental error and is reversed in this analysis.

continuing production, relevance, and cost-competitiveness for regional well-being.

Take the example of Detroit. Hill and Feagin trace the rise and fall of the automobile industry in their work "Detroit and Houston: Cities in Global Perspective." Here we can see how a mono-industrial city such as Detroit was well positioned to be near to most of its initial target audience, with convenient transportation for both finished products going out and raw materials coming in. The region surrounding Detroit came to provide the wide array of support services such corporations would require, and land was easily available for further development (155). This in turn led to many of the corporations involved in the automobile industry having tremendous clout, to the point where they were able to become bigger than Detroit by moving their operations out beyond the city boundaries (*Requiem for Detroit?*). While the industries were able to take advantage of all of the geographic advantages Detroit had to offer, Detroit was not reaping the capital gains it otherwise would have. A more cooperative quasi city-state model might have alleviated some of this, but with such a tangible industrial product, finding ways to be cooperative are more complicated. Houston experiences similar issues, as Hill and Feagin highlight, though with a commodity that requires concentrated geographic advantages. Houston's experience with the oil industry shows that it is not just product, but also the infrastructural needs that can shift over time that can act in this city marketing model (158).

What we may conclude from these industrial city experiences is that these areas experience tremendous economic challenges – to say nothing of political, social and ecological challenges – when the boom era for that industry passes. Both Detroit and Houston showed that while dependent on a single industry, not only did they not develop the infrastructure to be competitive in other industries, but they also did not develop the infrastructure for the global city-region era. Both languish somewhat today due to this legacy.

The current model of information-based economies lends itself much better to the quasi city-state model Freidmann proposes. As previously discussed, the attachment to a given place, especially with the additional assistance of a global network of support firms, makes place a much more mobile concept for the corporation in the information economy. The Chicago city-region exemplifies this, by hosting many corporate headquarters (Boeing, Sears, McDonald's, Allstate), while also having regional headquarters for countless more corporations (UBS, ABN-Amro, PepsiAmericas). What is significant about the placement of these headquarters within the city-region is three-fold. First, these corporations primarily deal in products that either need a broad range of production facilities or have no tangible need for a specific production site. That is, their place is interchangeable. Second, their presence in the Chicago city-region does little to harm the economic activity in other city-regions, as it is not direct competition to host these headquarters. Third, the density of these corporations within city-regions helps to rapidly develop the

support firm networks and infrastructure, thus providing a long-term venue for specialized talent, and making the city-region attractive to further development. As such, while there is incentive for a city-region to become involved in the attraction of global capital, once established, city-regions within the global network become self-sustaining entities, providing opportunities for their entire city-region – though raising questions of power and politics at the same time.

We may conclude from this mechanism that the quasi city-state model can be an effective model for urban development and sustainability provided the development takes the form of corporations for whom an attachment to certain geography is limited and the city-region itself is diverse enough in economy to provide the broadest possible range of support firms. Yet, the city marketing model cannot be completely discounted, as there are corporations that need attachment to specific places, opportunities for production that are globally competitive, and events and opportunities to showcase a city-region that are limited and thus produce competition for the tourism and marketing opportunities presented therein.

Following from Friedmann's broad view of global city-region development, Taylor et al pay special attention to the global service networks of specialty firms within the global city-region context. The first challenge to identifying this network is in overcoming the traditional nation-state model of the world illustrated in the conventional political world map (94). This world image of the nation-state as primary is being overcome by these networks, with the specialty

firm global network perhaps the most readily apparent example. Taylor et al's work, through the Globalization and World Cities Research Group (GaWC), analyzes thousands of firms in hundreds of countries for their interconnectivity. Before discussing the operation of these networks, however, it should be noted that the GaWC classifies Chicago as an Alpha World City, just below London, Paris, New York, and Tokyo, and on par with Frankfurt, Hon Kong, Los Angeles, Milan, and Singapore (100). The interlinking of cities through this network has effectively produced a network of support firms, made explicit through actual connections such as through airline travel – the support used for Taylor et al's study. Taylor suggests that future data on communication would make this network that much more solid, though this is as a method rather than as a question of whether or not it is occurring. The network analysis undertaken by the GaWC is well suited to quantitative methods, something that will be explored in this project's methods in Chapter 2.

To give an example of such a network, let us consider A.P. Moller – Maersk A/S, a corporate conglomerate with a diverse range of interests, though primarily known for its transportation assets. While it is technically a Danish firm, it has 108,000 employees in over 135 countries worldwide ("Annual Report"). This is the epitome of support firm with a global service network. To call the company Danish, though, highlights exactly the problem we have in conceiving of this international network. It is the worn-out model that the GaWC mentions with the conventional view of the world along political

boundaries for nation-states (Taylor et al 118). Maersk's activities fit in line with what we would expect from other specialized support firms, which include firms dealing with logistics, media, communication, energy, and the like.

It is, too, the focus of production and investment that we must acknowledge with the economic imperative, as an increasing focus of production is not for a domestic market in the nation-state sense (Sassen 25), but for the global economy, something that both further diminishes the primacy of the nation-state and also reinforces the global service networks. This economic reality cannot be ignored when studying any city-region, and Chicago, as being defined as a lower level Alpha World City by the GaWC, is certainly no exception.

The economic imperative is part of the global city-region network of capital, and while there is competition to a certain degree between city-regions for this capital, once a city-region begins on the path towards globalizing, the concentration of specialized talent and firms within the city-region will be pivotal in perpetuating the city-region as network node. For our purposes, it is this movement of capital and its effect on the shape and amorphous boundaries of the city-region that are of greatest importance. By understanding these mechanisms, we can begin to understand the impetus behind growth that the other imperatives must then attempt to manage in an acceptable manner. This is not a tidy process, to be sure, and the political and social imperatives will make it murkier still, as the primacy of the economic imperative as a driver of

development is difficult to deny, but it should also not be placed without consideration into a position of primacy when it comes to the shape and form of development within the city-region.

As a final warning, Friedmann, in "Intercity Networks in a Globalizing Era," notes that in the United States, the flexibility within most city-regions is not present for enacting timely change. Rather, there is a kind of intra-regional rivalry that frequently takes place on the municipality level for tax dollars, jobs, and territory (123), something that we will see at work in the Chicago city-region in Chapters 3 and 4. The cause for concern here is that the lack of a cohesive regional government does not bode well for the flexibility of a region, making for potential cases of inequality and undesirable planning or infrastructure layout.

This warning is a good transition into a discussion of the literature surrounding the political imperative for city-region development. For while Friedmann warns against the kind of disjointed political efforts seen in many American cities, the opposite extreme, seen for example in Australia, is to give a large state government control over regional decisions (124). This is no more acceptable, as once again the city-region is not capable of directing decisive action, but rather is a component of a larger governmental apparatus. Rather, the example of Canada and Western Europe, where the amorphous city-region is matched by a corresponding metropolitan authority, provides an idea for how

the city-region can be responsive and still autonomous within the global city-region network (ibid).

A conception of politics along these lines covers both the notion of a governmental apparatus, but must also encapsulate Arendt's ideas of action, apart from work and labour. But the shape of the information economy means that there is more room and more time for action as opposed to work or labour. Smaller family sizes have reduced work, and labour and action have become more closely related if we look at the rise of leisure as interaction (read: digital). With the flow of capital leading to accumulations within certain city-regions, what happens is a necessity for development. It is the political imperative, through action and speech, that this development takes its form.

For the context of the city-region, this project will begin political considerations with Sassen's *Territory, Authority, Rights*. By initiating the term authority, Sassen is noting not only who is as actor (in the sense of the term action), but also who wields the most power and ability to have their action honoured. Sassen's analysis of the state, the global economy, and citizenship yields a complex relationship of action and actor (143). As previously examined, the state is not the primary division in the global economy. This does not mean that it has ceded power to these economic networks, however. The Bretton Woods accords gave rise to this supranational economic order we have (144). The order, however, is reliant on the cooperation of the nation-state with the current political setup. What results is a new economic system with the old

political order, which means the low-density growth of the global city-region era is being regulated by older political orders that are either too inflexible or improperly focused to deal with the issues of new development. The results have led to a new kind of urban periphery with a lower population density and a universal appearance typified by mono-use zoning.

Dolores Hayden traces the growth of the suburban phenomenon that makes up the edges of the city-region. It should be noted up-front that the suburban phenomenon is not linked directly to the global city-region era and the information economy. Indeed, Hayden traces the American suburb back to 1820, all the way through to the present, where more people live in the suburban realm than the urban or rural (3). Indeed, more Americans live in suburbs than live in the urban and rural combined (10). Of particular interest, though, as we again look at work and labour alongside action, is the idea that the suburb is resistant to change institutionally much the same way the nation-state is resistant to the economic reality of the global city-region network. Suburban space "has been even less accommodating to changes in household composition and women's roles. Men of all classes have portrayed the suburban home as a retreat from the cares of their jobs. But since the time of the borderlands, houses have been workplaces for millions of women of all classes and all ages" (13). In this sense, the suburb restricts the ability for action for women in favour of the needs of men. Of more concern is the fact that, as women are increasingly central to the workforce, the suburban domestic

demands on women will remain alongside work: work and labour combined will do much to restrict action.

Robert Fishman highlights the process of suburban development in London, noting that it was not a simple process of individuals suddenly deciding to give up the city in favour of the periphery of the city. Instead, it was the weekend villa that acted as an intermediary, introducing class differences into the idea of the suburb (39). Fishman suggests that it was the merchant class, the bourgeoisie, who sought to emulate the aristocracy, but still remain close to the source of their capital generation (42). The move to the suburbs was not identical in America in general or Chicago in particular, as racial tensions played a role in the latter half of the twentieth century. But even in older suburban areas of the Chicago city-region such as Oak Park or Beverly, it is easy to see how the moneyed acquired space on the periphery, which was then copied by those with the means to do so. The ability for work to not dominate over the leisure aspects of labour and the opportunity for action also played a role in the development of the suburb.

Andres Duany et al give a background to the modern form of the suburb, with treatises on everything from the reasons for the shape of the suburb to the motivation of developers who, acting on the opportunities afforded by the needs of capital in the global city-region network, find ways to modify space into places, though frequently with a limited number of individuals from restricted backgrounds having the ability for action on the forthcoming development.

Their first point, one that harkens to Jacobs and the use of space by a variety of citizens in varying life patterns, is that community and the equity of action and speech that goes along with it, cannot exist unless there is communal space for such transactions (60). Indeed, this communal space, the places where individuals would normally interact, has been transferred more and more to time in the automobile (60), meaning that while we have noted situations where the action and speech of some individuals could conceivably be known more than others, there is less opportunity for this speech and action to be encountered by fellow citizens if these situations are handled in an isolated manner.

Where then is Garreau's source of optimism in this seemingly dour analysis of those with the ability for effective speech and action? He suggests that there is a form of the American Dream occurring on the edges of city-regions (15), identifying with a version of history that features the noble pioneer. Yet, today's pioneer, the developer, cannot be so easily romanticized without the fog of history. Duany et al paint a different picture, noting the formerly esteemed position of the developer has been replaced by a kind of scorn (100). The shift is in the public's perception of the kinds of spaces that are now being built, with indifference being a common attitude at best. To blame, according to Duany, is the abolition of mixed-use development, the variety in zoning that can create a communal space. In addition, marketing experts are singled out for blame (103), suggesting that there are market forces

at work and an economic face for some of the ills of the contemporary city-region.

Stephen M. Wheeler obliquely addresses this issue in his *Planning for Sustainability: Creating Livable, Equitable and Ecological Communities*. The problem according to Wheeler is two-fold: the low-density growth of the city-region has led to a spread in the inequities between economic classes, race, social status, and other measures (9). In the kind of single-use zoning we are exploring, it is very simple to partition off sections of the city-region, limiting interaction and thus the variety of action and speech that can come along with a more diverse community. Additionally, a turn towards a dependence on quantitative analysis led to a kind of fixation on and fetishizing of numbers, to the point where planners of the post-World War II era believed they needed to avoid being activists, and rather pass on raw data to decision-makers (12). The response by Marxist critics to this shift is that with such an approach, planners are merely facilitating the flow of capital rather than representing either the will or the needs of citizens (ibid).

As if to provide the other end of that equation, John A. Clark et al point out how our reliance on technological progress – a direct out-growth of the positivistic reliance on the quantitative of the aforementioned post-War era – has splintered our civilization into highly fragmented, specialized fields, thus making the disappearance of the public commons analogous to something that has been a social occurrence (68). Karl Linn continues this line of thinking by

noting that the public commons that we have known is a dead concept (115), that the spaces outside of our homes that used to be extensions of home cast into the public are now means for automobiles to move. Richard Ingersoll, in his exploration of sprawl, *Sprawltown: Looking for the City on its Edges*, comes back to de Certeau, noting how the pedestrian street was so central to the function of everyday living (73). Ingersoll, too, lays the causes of this shift on the automobile, and takes the very important step of noting that the scale of low-density growth of the global city-region era is very tightly tied to an automobile, rather than foot or public transit, scale (74). This is a critical point to consider, as it raises the idea that it is not only the shift to an information economy that has reformed the shape of the city-region, but it is also a phenomenon related to transportation that has in turn privileged some and at the same time has restricted the action and speech of citizens by keeping their common interactions limited.

While the suburban phenomenon on the edges of the city-region has favoured some when considering gender, race, culture, and socio-economic status, it also restricts everyone through a process of specialization through progress and isolation of individuals through both the fruits of that progress and in its pursuit. While it is easy to point fingers at developers, politicians, marketers, or any other individual or group actively involved in the decision-making process for zoning and development, it is a powerful confluence of factors, influenced by economic, social, and ecological considerations, that

drives action. Applied to this project, it becomes a notable challenge to arrive at the denouement of these factors within the research site. By understanding first the economic imperative for development and then the rationale for the shape it has taken, we can fully comprehend the life patterns that are occurring and how these may remain the same or be changed for whatever reason there is sufficient political action and speech.

The social imperative for city-region development, then, notes that there would be uniform international development if there were no social or cultural distinctions between places. Instead, as Timothy Beatley notes in *Green Urbanism: Learning from European Cities*, it takes little more than a cursory glance to see the difference in land use patterns between Europe and America (29). Clearly there is another process at work, one that sees different histories and interactions weaving different life patterns depending on location. This is in addition to the physical differences between places, though the form of these places somewhat interplays with this weaving. Leon Krier makes a special point of highlighting this matter in *The Architecture of Community*. "It is an error to make democratic pluralism responsible for the chaotic appearance of our cities and countryside. In no way does it express the peaceful, organized, conventional functioning of civil society, and neither does it facilitate its harmonious development" (11). We cannot blame the political system necessarily for the shape of our city-region. Noting it as chaotic, too, raises questions about what this shape is within the city-region and how individuals

can – or cannot- interact within it. This is the social imperative's domain, and this project will consider the social within the context of city-region development in the sense that a city-region is never a finished project. While the term development might imply the act of initial development, if we instead use the lens of continuous development, then the social nature of life patterns changing over time make a great deal more sense.

To add additional weight to the pressures driving this sense of redevelopment and as well as capital velocity, the United States Department of Housing and Urban Development produced a report titled *The State of Cities 2000: Megaforces Shaping the Future of the Nation's Cities*. The report, in light of the political, social and economic opportunities and challenges facing the information age city-region, notes that the best path forward is to have livable communities both at the core and on the periphery of the city-region (19). Most interestingly of all, and echoing Friedmann's comments on city-region government, is that regional governmental coordination will play the biggest part in establishing this direction of growth. Surprisingly, though, the report highlights that improving education and public safety are the primary means for achieving these ends.

What do these mean? Improving education and public safety is an easy target to place, but there are no concrete steps offered to achieve these, nor how they will directly correlate to an improvement in the social situation of the city-region, to say nothing of direct political or economic benefit. Rather,

theorists seem to highlight the organizational issue over these vague targets, with Lucy and Phillips agreeing that there need to be regional targets established for planning as well as participatory democracy in more local decisions (319). Gary Hack goes one step further in claiming that, as an absolute, every region needs regional development planning to prepare for the new geographic realities of the global city-region era of growth (341). In contrast to the HUD report, which highlights education and safety as goals, regional coordination has gained favour with those in urban studies, as such planning reduces intra-regional competition and provides a greater chance for social stability.

Duany et al lay out the conditions for building a good town, touching on regional planning, establishing connectivity with neighbouring areas, allowing for mixed-use development (and thus the variety of interweaving life patterns Jacobs mentions for a healthy neighbourhood), and making the most of a given site (186, 192, 196). Most telling of this order is that they also directly interact with each level of region Jacobs mentioned earlier: the city-region, the neighbourhood, and the street. A socially healthy model of design would then be one that can respond to each of these needs by addressing site-level to region-level issues, all particular to the given city-region.

Rem Koolhaas indirectly highlights the issue for the global city-region in *S, M, L, XL* by noting how this change in scale affects the control of a given site by an architect. In fact, the site cannot be controlled by either a single

architectural gesture, as Koolhaas calls them, nor by a combination of them (499). More telling, the scale of large projects now disconnects the exterior of the project from the interior (501). Taking this beyond the street scale of region to the neighbourhood, this implies that the exterior appearance of a project or projects may belie the purpose of the interior. Going back to Alexander's language for a moment, there is a kind of small-scale autonomy established on the neighbourhood level of region, one that must exist for social equity to be present. With Koolhaas establishing a conception of architecture on a scale whereby control is not central, we see another opportunity for a kind of city-region level restraint to be established.

Let us leave this idea intact for a moment, as we must again return to the idea of a region being healthy over time, through development, for the benefit of the life patterns of citizens. Mosafavi and Leatherbarrow take sword to the idea of building permanence much the way social, cultural, economic, political, or ecological are considered to be context sensitive. They begin with a simple assertion: "Finishing ends construction, weathering constructs finishes" (5). This seems a logical assertion, though it also shows how the final process of building does not occur with the laying of the last stone. Rather, it is natural forces continually acting on a structure that either finishes it or finishes it off. The next point, and the one that is really quite powerful for the idea of the social imperative within the city-region, is that there must be maintenance to avoid failure on infrastructure from natural forces (ibid). This is surely not a

controversial statement, especially to anyone who has witnessed what a winter in the northern latitudes does to transportation infrastructure. But it also implies that the infrastructure of the social, as with the other imperatives, must be maintained in order to retain function. With the different scales of region from a social standpoint, this means that there must be maintenance on each scale to prevent decay. Harking back to the political imperative, it must be said yet again that such maintenance is especially difficult if there is no regional authority to coordinate it.

Returning to Beatley for social examination, we are provided with examples of how the European city-region strives for this kind of maintenance, differing on cultural emphasis. On the nation-state level, there seem to be differing points of emphasis, from compact, conservative land use in the Netherlands, to conservation and ecological preservation in the Scandinavian countries, to a general European support of the idea of living within cities (59). These cultural factors will play a role in every city-region, as the shared knowledge within a community will manifest itself differently in every piece of development, to say nothing of political, social, or economic structures. Beatley continues, as he does throughout his work, to emphasize the benefits of the compact urban form, and through the lens of Jacobs, it is easy to see how overlapping life patterns are easier to establish within a more compact use of space. This is also simplified for Mayol's definition of neighbourhood as a consideration of simple proximity to the dweller. A more compact urban form

has more of the needs of daily life that determine life patterns with a closer proximity to the dweller. For the purposes of the social, it is tantalizingly easy to suggest that it is a return to the more compact form of urbanism in order to reestablish the idea of neighbourhood with the city-region that is ideal. Yet, to do so is to fail to take into account the growth in population in most of these city-regions. Maintaining fixed boundaries for a city-region is to act as a kind of gate-keeper, giving precedence to an existing culture, provided they do not relocate or lose their shared identity, over the possibility of an influx of new dwellers. In light of the information age economy of the global city-region, this would seem to be a competitive disadvantage for a given city-region, as it becomes much more difficult for the specialized talent necessary for international corporations and networked support firms to integrate within a given space.

Instead, a kind of reformulation of the urban into a massively multi-nodal space is of the utmost importance. In order to accomplish this, instead of merely setting up boundaries around the city-region and leaving the remaining land differently developed, we must take the idea of landscape, the use of land as a whole including the spaces in between development and other concepts of the undeveloped, inside the boundaries of the city-region. A theory of the social aspects of landscape design is therefore necessary.

Boults and Sullivan, in their *Illustrated History of Landscape Design*, simplify a definition of the postmodern to “skepticism about the assumptions of

modernism... they thought of contemporary culture like a collage, subject to many different interpretations" (223). This is a fair point, and highlights, in the midst of the social imperative, how the conflict between the modern and the postmodern is one that is not easily negotiated. While the modern does indeed privilege one item (culture, economy, individual... the list is difficult to exhaust), it is difficult to use space into places without some elements of privileging. After all, a site, even when flexible, has a limited amount of functions it can perform due to the nature of three-dimensional space. For postmodernists, this would explain the potential of virtual space as a non-privileging space, but that remains well outside the focus and boundaries of this project: here physical space is key to understanding the social interactions of daily life patterns. Boult and Sullivan continue to highlight the way postmodern design within landscape design encapsulates natural elements as a way of introducing the ecological within the designed space (224). This is a key idea that will continue through landscape as social and cultural imperative, as well as into the less-metaphorical ecological benefits of such natural inclusion.

Udo Weilacher highlights how landscape architecture, as a field, is viewed by some as an art, others as a science, the perfect mixed-methods ambiguity for the nature of this project (11). *In Syntax of Landscape: the Landscape Architecture of Peter Latz and Partners*, Weilacher, while seemingly writing frequently in awe rather than from some concept of a reporter's objective standards, makes the pivotal point that "[t]he significance of a place, its

intelligibility, is influenced to a considerable extent not just by internal but by external factors, such as the surrounding landscape" (26). As we consider how to construct the street, the neighbourhood, the region, we would do well to remember this idea, as it is not just the site, it is the surroundings that lend significance to place. While Koolhaas is concerned with the idea that a project can become too large to be managed by any one concept, Weilacher's point on how surroundings must be considered more than put to use and Boult's and Sullivan's that natural elements are an important part of the landscape, even in urban settings (they even use the term "enframe" in their support of nature in such uses), collects for us further evidence that a city-region development authority is important if for no other reason than to take in the scale of place and plan accordingly. The life patterns of the social imperative would be well honoured by such forms of planning, and we shall see in practice how such ideas may be put into place with our research site.

Busquets and Correa give us pause should we get too excited about the impetus and opportunity for change, however. They note, in *Cities X Lines*, that the old way of operating, the post-World War II models that shaped the city-region into its current form, are still in effect, and are not simply going to be swept away by cultural, social, political, or economic change (09). Just as physical place is in many ways modernistic through its inevitable privileging of some over others, it is also not the most mobile of human creations, as it is not economically, politically, socially, or ecologically expedient to tear up a place and

recreate it frequently. The urgency associated with this project, then, must be taken with caution, as the changes that are proposed cannot be undone quickly, and therefore, when it comes to developing with the social imperative in mind, the needs of the region (on all scales) must be carefully taken into account in order to construct places that are not just either functional or beautiful, but also effective in mixing the differing needs of a place, honouring the necessity of diversity in life patterns for community vibrancy - for long term benefit - with a finished product always a goal but never a reality considering the manifestations, both virtual and physical, of weathering and change over time. We must proceed cautiously.

To look at the cover of Paul Lukez's *Suburban Transformations* is to provide a powerful incentive to abandon this caution. Here, an artist's rendering shows what on first glance could be a contemporary city-region landscape, with the shape of the freeway clearly present. And yet, on closer examination, most spaces present are green spaces, constructed, giving primacy to the proximity Mayol proposes and the enframing of nature Boults and Sullivan consider the hallmark of postmodern landscape design. Places are intermingling as well, making each piece both central and transitional into another. In the distance appears to be hills and partially developed, though low-density throughout, space, resembling much of my current home in Upper Michigan.

This is a very tempting landscape, though one that would require significant redevelopment to achieve. And that is the point Lukez is trying to

make, by offering what he calls the “Adaptive Design Process.” By taking existing infrastructure, identifying its current use and purpose as well as the social (and other) needs of the surrounding neighbourhood, district and region, and applying fixes incorporating existing elements, Lukez offers the possibility of repurposing sites more rapidly, more fluidly, with greater local input and less ecological intrusion (49). This is a process we have seen in action over the last couple of decades, from the example of a repurposed warehouse made into apartments in the Houston city-region (45), to the popularly known example of the former railroad building in the outfield of Oriole Park at Camden Yards in Baltimore. These are spaces that for economic, social or political reasons have fallen out of originally purposed use, and where the will (and the funds) existed to repurpose the site to better fit with – in ideal terms – the life patterns of the surrounding region. This is an optimistic view of the situation, as without effective regional development controls, there is a strong possibility that either one individual or one group’s action and speech will gain far more traction than others that are either isolated or less represented in redevelopment priority. The vision Lukez has will be of tremendous use to the solutions portion of this project, but it must be with the utmost care that such solutions are put into place so as to be of a tangible social benefit.

The social imperative is one of interaction, one of purpose of places with the scales of region over time. The major obstacle to honouring this imperative is not so much political or economic will, but more of the shape of the

development authority that can be responsive to the social needs of a given community. While a regional development authority can give economic and political shape to city-region development, it can also give more primacy to social need and help in the creation of the multi-nodal city-region that is haphazardly under development anyway. Unless a different model of the city-region, one that renders Mayol and Jacobs obsolete, emerges in the near future, the establishment of the regional development authority and providing equal opportunity for action and speech within it seem to be of the utmost importance for social imperative advocates.

This, once more, is the space of the regional development authority, so sorely lacking in the city-region structure of the United States. It is not only felt in the aforementioned imperatives, however. In fact, the most pressing point for a development authority may be the ecological effects of our current city-region development. This is not to necessarily give primacy to the role of ecology, but rather is a reminder that we cannot view terms such as natural and human as binary opposites. Indeed, in order to stabilize the position of the other imperatives, we must take into account the ecological, to understand its place in life patterns, and why it is or is not considered in current development decisions.

To do this, to understand the place of the ecological imperative, we must return to Cronon and the idea of nature as something that is human rather than as something that is beyond human reach. Anne Whiston Spirn provides an

example of this in "Constructing Nature: The Legacy of Frederick Law Olmsted." Spirn traces the work of the famous landscape architect Olmsted, noting that so many of the places we view as natural (Niagara Falls, Yosemite, etc.) are actually very carefully constructed human creations. "Olmsted was so skillful at concealing the artifice that both the projects he had so brilliantly constructed and the profession he had worked so hard to establish became largely invisible (91). The ethic here was for Olmsted to create places where nature is given prominence, but to do so in a way that does not recognize a kind of original state for nature.

This is why the imperative employed here is ecological and not environmental. Ecological acknowledges that nature is part human, and that human is inherently natural. James D. Proctor, in his work "Whose Nature? The Contested Moral Terrain of Ancient Forests" notes that much of the popular ideal is one "where wilderness serves as a counterpoint to the country's expanding cultural landscape (285). Cultural, and economic as well, as once again, without the presence of the regional development authority, it has become increasingly easy to make land use decisions that are politically expedient towards short-term economic gain. Roderick Frazier Nash traces this history of wilderness back further in *Wilderness and the American Mind*, stating that when the United States was founded, there was little we had that could artistically or historically compete with Europe. Yet, there was one place where Europe could not compete, as "wilderness had no counterpart in the Old World... nationalists

argued that far from being a liability, wilderness was actually an American asset" (67). We began our nation from the idea that there was this other space, an asset that was apart from civilization.

Setting aside the discussion on the wilderness as apart from human for a moment, as such an argument exists on the very edges of the city-region, let us instead consider the idea of integrating the ecological within the city-region instead. This means that there are aspects of natural processes existing with given sites of the distinct classes of regions, and that these processes are a part of places and should not be eradicated for the long-term health of the city-region. Charles Waldheim, in his introduction to *The Landscape Urbanism Reader*, argues from the premise of the basic place unit being not an architectural unit, but a landscape unit. This harkens to the image of the city Lukez celebrates with the Adaptive Design Process, whereby all of the landscape requires consideration before proceeding with site redevelopment, as well as the concern Koolhaas has for the size of certain buildings that take them beyond the act of one piece of architecture.

Jacqueline Tatom forms a cohesive argument, along these lines with respect to transportation corridors, that takes into account public spaces and ecological demands alongside existing infrastructure. She notes that transportation infrastructure takes the role of state and federal entity rather than local or city-region planning responsibility (183). Again, the lack of a regional development authority creates inefficiencies in the development

process. The concern comes from the idea that a massive redevelopment of the urban form must take place, and that it will require unprecedented coordination of agencies and resources to achieve this redevelopment (193). Whether or not the economic or political will exists to make these changes is questionable at best.

Marc Treib puts it most succinctly in "Nature Recalled" when he states, "we should not invest this resurrection of interest in a landscape conceived as a banal buffer between the elements of the built environment, nor as a green balm for inept architectural planning. Instead, we might once again regard the landscape as an integral part of the designed world" (41). In other words, we should not be treating nature as something that should be sprinkled in, but rather we should note that it is part of the landscape in the first place, and has simply been designed out of the city-region primarily for reasons of economic expediency. This work all comes out of Ian McHarg's influential *Design with Nature*, a text commonly cited throughout the literature on landscape, including Treib's. McHarg begins his chapter "The Metropolitan Region" by noting that the city-region (as we call it) is a conceptual convenience, but not an entity in any governmental sense (153). To avoid repetition, here we are again talking about a regional development authority, and future such references in this section will be assumed to have made an identical point. As if to highlight how the ecological applies to the social and political imperatives directly, McHarg points out as well that the development of the suburb, which has ecological

problems we will mention shortly, is not a community by agglomeration of subdivision, that suburbs together do not make a community either, and as such neither can a city-region (ibid). In the act of developing while honouring the ecological imperative, McHarg also notes that while there are lands that can be viewed as unsuitable or hazardous to development, there are others that are inherently suitable for urban or city-region development (154). He continues with a technical examination of the suitability of specific space-types, though the details here are not as important as the sentiment: if we develop with the suitability of certain spaces for development in mind, not only do we operate within existing ecological constraints, but we also are less ecologically disruptive and have to do less to infrastructure to make it sustainable within the context of a particular climate and geography. This is a simple premise, yet it does not reflect the development patterns that we have seen in the global city-region development of the last several decades.

Of course, this is neither due to a lack of literature on the topic, nor to a lack of designers interested in such changes. Tatom mentioned in her piece that civil engineers are more likely to work on the more public projects such as transportation infrastructure than designers and planners. Douglas Farr, the influential designer and author of *Sustainable Urbanism: Urban Design with Nature*, is introduced by Andres Duany as a kind of new Christopher Alexander, introducing another language for reintegrating the ecological within the city-region (9). Farr himself then lays down why our current development model is

unsustainable and an ecological redesign must be implemented. "Much new development is designed to discourage outdoor living. New streetscapes are hostile to pedestrians and discourage travel by foot... [m]odern consumer society... exploits natural resources at a rate that the Earth cannot sustain" (21). In addition to the social ills that such an indoor life gives us, these ecological concerns press the point that from an economic and political perspective, we are trading short-term gain for long-term stability. Such stability would be both economically and politically desirable, and designing for such would be socially and ecologically beneficial.

Patrick Clarke indicates one way where redesigns may fit from a specific site perspective. He notes in his piece on "Urban Planning and Design" in *Sustainable Urban Design: An Environmental Approach*, that while a street may have a life of 1000 years or more, and a building a couple of hundred years, the services and utilities connecting the building have a lifespan of a mere twenty five years or less (13). This has ramifications particularly in energy sources and other similar infrastructure, as upgrades to existing structures are considered to be upgradable over the life of a building. If we apply this idea to the individual site and the Adaptive Design Process to a given landscape, then we have accomplished a great deal of modification without rebuilding the sites themselves. If the political and economic climate is acceptable, then there is the opportunity to make improvements to urban spaces with an eye towards long-term sustainability.

As one more call for the regional development authority, Adam Ritchie, in his summary of the opening section of *Sustainable Urban Design: An Environmental Approach*, notes that the barriers to an ecologically balanced city-region require a complex solution, and thus a complicated organizational structure to oversee it (92). Additionally, Ritchie claims that buildings will require fewer resources with our intelligent redesign, something that is imperative in the face of Farr's claims. This includes implementing natural lighting solutions where possible, and that power uses should be in multiple cycles, with appliances that consume energy also providing heat sources and excess demand over available supply coming from renewable sources. This shift will demand that we look at buildings as suppliers of energy rather than consumers, with individual site sources including geothermal and solar options (93). So while the building unit will evolve from the building site to the landscape, we still must recognize the vital nature of the building site for ecological solutions. Indeed, it is not a matter of the individual building site becoming unimportant; rather, it is that the building site cannot be assumed to be developed in a vacuum, and must be a part of the region on the street, district and city-region scale. Any means that can be used to provide ecological solutions to both energy and aesthetic issues within the individual building site should be applied. Outside the building site, by including the surrounding area into a landscape, additional steps to augment the energy and aesthetic needs of the immediate area should be taken, which also keeps the focus on the street-

level region. Taken in concert with the idea of varying overlaid life patterns for the social imperative, a very powerful roadmap for future redevelopment begins to take shape.

Richard Register, while optimistic about the design features we have available to us, notes in *Ecocities: Rebuilding Cities in Balance with Nature* that what we seem to be building is the kind of low-density, highway and parking lot-intensive infrastructure that is working opposite the goals of the ecological imperative (8). While there are opportunities to improve the ecological presence within major cities – and Register highlights his experience in Berkeley advocating front-yard greenhouses, public fruit trees, resurrecting buried creeks, and many other projects (7) – the direction Register notes is one that is overwhelmingly in the direction away from the sustainable development and redevelopment that would prove most desirable within the city-region. While many of Register's ideas seem both radical and perhaps unworkable given current demographic and economic realities – including depaving and shrinking our cities back to their former sizes (19) – he does map out for us a helpful measure of the types of spaces that must exist both in and at the borders of the city-region in order to be sustainable: the human space, the human sustenance space (the mine, the farm, etc.), the natural space that has humans who can manage their own presence there, and the natural preserve (ibid). This is highly problematic again, as Register's model seems to suggest that we are not a part of nature. Even so, his recommendations for a radical rethink of the way the

city-region is formed will hopefully nudge the conversation at least in the direction of honouring the ecological imperative.

Peter Newman and Isabella Jennings prescribe perhaps a more likely scenario for the future city-region in *Cities as Sustainable Ecosystems*. As the first principle of their work, they state that we must “[p]rovide a long-term vision for cities based on sustainability; intergenerational, social, economic, and political equity; and their individuality” (8). Here all of our imperatives are represented, though with sustainability (and thus ecology) at the fore, we operate within the assumption that development controls are in place, while at the same time providing a forum whereby those controls are accessible, comprehensive, and equitable. Newman and Jennings point out that the vision for many cities has been one of competitiveness (30), bringing us back to Friedmann’s city marketing and quasi city-state models. It speaks volumes towards the failure of a coherent regional policy for development priorities and an obvious place where this project may suggest a fresh way forward. The ecological imperative cannot be ignored in the long-term.

The process of development, it should be noted, is not simply one of human development replacing a kind of non-human space. Instead, we are frequently reusing existing spaces, and many of these spaces may have had previous uses that prove challenging for redevelopment. Alan Berger refers to such spaces in his text *Drosscape: Wasting Land in Urban America*. The central point is that the processes of both nature and humans generate waste, and that

while this waste must be manage, it also presents design opportunities (12).

Interestingly, Berger also contends that designing a space with dross puts the designer in the position of designing a project potentially without a client in mind, as these projects, being beyond the building site, incorporate an entire landscape. Berger also notes the pattern that the edges of the city-region are now frequently in a superior position to the urban core, as they have more jobs, more residents, and newer infrastructure (22). But as many of the drosscapes of the old urban core were on the periphery, we are frequently in the process of reusing these spaces. Indeed, our research site has multiple examples of this kind of space, especially around the minor urban centers along Interstate 80. How we remediate prior ecological damage suggests to us some unfortunate realities of urban resource needs, but it also provides a remarkable opportunity for redevelopment. This restoration should be looked at as a potential positive for the ecological imperative, and gives us another positive for the low-density growth patterns provided the waste patterns are not replicated further out. Given the information-based economies of the global city-region era, such industrial replications would appear unlikely.

One possible step forward is to follow McHarg's advice and design with natural elements in mind. This has been taken a step further by the rise of biophilic design, a style that incorporates the natural into the architectural elements, thereby taking the idea of harnessing available natural energy and lighting options one step further. Proponents of this approach, including Liat

Margolis, Lance Jay Brown, Stephen R. Kellert, and especially Ken Yeang, Ron Barnett, and Judith Heerwagen, propose placing the ecological imperative directly within the building site rather than merely as a part of the associated landscape.

Such a move, if successful, would spell a radical rethinking of the city-region and significantly reduce its associated resource footprint, while at the same time making sites require less frequent rebuilding. The major drawback at this point is the economic incentive, as the benefits are primarily long-term rather than short-term. If bids continue to be won on lowest overall up-front cost (as can be seen by law in government projects), then the outlook is not as favourable. Here we again see the need for a regional development authority that can maintain the long-term outlook over short-term political and economic gain. Such an approach would bring the ecological into harmony with the other imperatives by again honouring the long-term approach to place and the city-region.

The resulting ecological imperative is, then, both technical in the sense that it takes into account energy sources that are renewable and long-term in focus, as well as forming a kind of natural aesthetic, where the benefits to humans of having the natural world reintegrated into daily life are a qualitative plus. What is obvious is that the ecological imperative is related to the long-term economic imperative, and therefore is dependent on stable political structures with equal access to action and speech in order to build the kind of

life patterns and street to city-region level ideas of community that would help to perpetuate the idea of sustainable living. If the ecological imperative has anything on its side, it is that the idea of long-term sustainability is in the best interests of all the imperatives, and as such should be seen as a benefit overall to the city-region and thus the continual development of this project's research site.

This literature review is in many ways a continuation of the definitions of key words portion of this chapter: by needing to bring together so many disciplines into one project, we are very much in the process of developing new connotative meanings for many terms to create a language for this project. As such, terms used by Heidegger, for example, may be used differently than Farr or Berger may use them. This review has attempted to maintain some linguistic consistency, then, to better facilitate the combination of these resources; this makes the work of this chapter the metaphoric operating system for the applications of the sources reviewed herein.

Conclusions

This project sets out from a position of having four imperatives interrelated in the development and redevelopment of sites, with each supported by a range of practitioners and theorists. These imperatives come out of an intermixing of the works of a variety of philosophers and theorists, which form a humanities core for the process of this project. This combination

is what allows this project to move forward and examine our specific site of the Chicago city-region, established as a second-tier global city, and exhibiting so many of the phenomena discussed previously in this chapter.

First, the work of Heidegger, and the survey performed by Casey, help us to explore the idea of space and places, enabling us to build a philosophical underpinning for how the city-region functions. This spatial relationship forms the city-region itself, with the particularities of city versus surrounding municipality proving to be little more than a cartographer's convenience. Add to this the foundation for the economic imperative (the rise of the global city-region via Hall, Sassen, Friedmann, et.), the political imperative (Arendt directly, Cronon and Irigaray indirectly), the social imperative (Mayol, Jacobs), and the ecological imperative (McHarg, Farr), and we have a very potent picture for how individual design and planning projects have a cumulative effect over time.

By understanding these processes, we are better equipped with a language to analyze the Chicago city-region within the scope of this project. Additionally, infrastructure elements such as transportation corridors take on the role of creating new places but also changing existing places in ways that are governed by each of the imperatives. The lack of a coherent regional development authority means that understanding these processes is something that both must be undertaken and must be commenced from a relatively disorganized point. The language in this chapter is a step towards organizing

and reorienting sites and actions into something that can be captured, understood, and modified through redevelopment with time.

The next chapter will introduce the details of the research site for this project, giving special attention to the way Chicago has developed over time into a city-region, and why the selected research site acts as a microcosm for both the Chicago city-region and the idea of the city-region in general.

Following this will be a rationale for this project, explaining why the language of this chapter is applicable to the research site and why the urgency shown from authors such as Farr is present within this site as well. An examination of the methods applied to this project will follow, as any mixed-methods project (such as this) requires an explanation for why more than one method is required and why certain methods are chosen over others. This leads into, and is part of, the methodology for this project as well, giving examples of other similar projects that have employed these methods and what the likely outcome will be.

The site for this project is relatively straightforward, though the materials needed to get to that point are not. For the reader, I hope this chapter has not been overly convoluted and has emphasized the relevance of the four imperatives, established the idea of space and place in history and culture, and has provided a foundation for the recommendations that are to come in later chapters of this project. The idea of the regional development authority is not meant to be a *fait accompli*, but the literature suggests it a necessary step for a competitive yet sustainable and just city-region. The cooperative nature of such

a step appears to be of economic, political, social, and ecological benefit, and yet, like any point in this project, it is not as simple as merely implementing such a move, nor is the move in such a direction unanimous. Instead, this project is designed to illuminate situations, pose questions, provide suggestions, and help the Chicago city-region move forward as a model for sustainable, successful, equitable growth, development and redevelopment.

Chapter Two

Site, Scope, Methods, Methodology

"When a man rides a long time through wild regions he feels the desire for a city." - "Cities & Memory 2" by Italo Calvino, from the collection Invisible Cities

Introduction

I would be remiss if I did not point out how fantastic it is to be able to play SimCity for hours on end and call it research. These sorts of simulation games have long fascinated me, though I can't claim to have ever become particularly good at them. With SimCity, a game where you are the mayor and are supposed to make all planning and budget decisions, I usually wind up with a city short on services and basically broke. But look at that nice bridge and seaport!

This is an important point for two reasons: a game like this shows why this research is necessary, but also why it must be tightly constrained and the work of many over time in order to be useful.

In SimCity, the player may zone land based on type (residential, commercial, industrial), as well as the density therein. As was noted in Chapter 1, such claims ignore the vibrancy of mixed-use developments that incorporate more than one zoning type into shared space. Even the simulations are telling us to separate these elements and build plenty of roads between them. Indeed, when zoning in SimCity 4 (the version I am playing, er, using for research

purposes), roads are automatically constructed in between certain spaces, and buildings have to face certain ways in order to make use of automobile transportation.

And yet, we know that this does not need to be the case nor can it be the case in the long term. With low-density development being the most obvious face of information age city-region growth, we are developing a nodal structure that must, due to infrastructure and energy constraints, provide opportunities for all of the needs addressed by zoning to be addressed within geographic confines.

For this project, however, that still leaves this work as overly broad. In fact, SimCity demonstrates how there can be too much to attempt to effectively encapsulate in one frame of reference. With window after window of information, and all of it simplified to maintain some semblance of this being entertainment, the level of detail is both astounding and still not up to what making such decision in real life is like.

It is by acknowledging that reality that this project moves forward, identifying rationale, site and scope, followed by methods and methodology. While I remain convinced this could be a life's work and be comprehensive in nature, sooner or later any accredited, degree-granting institution would like something resembling an end product as justification for funding.

Rationale

Much of this study involves transferring the ideas brought forth from the humanities into another domain. This is not an unknown concept by any means, as exemplified by Patricia Cohen's chronicling how geographic information system (GIS) software is introducing the idea of "spatial humanities," where sites and space are seen as a humanistic issue (C1). As Cohen points out, "[h]istorians, literary theorists, archaeologists and others are using [GIS] to re-examine real and fictional places like the villages around Salem, Mass., at the time of the witch trials; the Dust Bowl region devastated during the Great Depression; and the Eastcheap taverns where Shakespeare's Falstaff and Prince Hal caroused" (ibid). We now have the technology, in other words, to recreate places past and present, and to understand them from the variety of perspectives the humanities affords.

For this project, that means that we can simulate and understand the life patterns in which citizens engage, discover those sites and corridors that are used or not used, and how they might be made to better serve the needs represented by the four imperatives established in Chapter 1. Before attempting to create such data with sophisticated mapping techniques, first the confines and nature of the eight selected study regions must be understood. Before mapping sites and corridors, seeing the nature of these places, and how they

are related to a global city-region, is of the utmost importance, and this goal comprises the purpose and fruits of this project.

Scope

This project is a beginning. Once these two corridors, these eight study regions, are understood and brought into tighter focus, the opportunity to bring in more quantitative methods of research, applying specific solutions for sites, corridors, communities, and regions. However, given the scale of the task before us, this is clearly not the domain of any one discipline. Given the contributions necessary from sociologists, ecologists, civil engineers, urban planners, landscape architects, demographers, countless other fields, to say nothing of the citizens and elected officials, any conclusions this project draws are preliminary steps, not a final product. The scope for this research, then, is limited along those lines given the nature of the contribution this project represents.

My research is primarily first-hand, with observation a primary tool, as well as using maps and satellite imagery to analyze the style of development and common life patterns within the eight study regions. This information will provide a starting point, rather than an end product for what specifically should be done. Quantitative analysis of demographics, economics, and other such trends are beyond the scope of this project, as are specific ecological concerns within these study regions. Such work is better left to specialists in those fields,

and their work on this project will further the search for definitive solutions to development challenges. Using the array of source material outlined in Chapter 1, and viewed through the lens of humanities scholars towards four basic imperatives, the fruit of this research will be to find challenges in current development and promote directions for future remediation.

Site

With the collection of ideas, theories, tools and applications collected in Chapter 1, this project aims to move forward by testing a fraction of these on a very specific site. This site is in many ways amorphous, as any city-region tends to be. With ten Interstate highways in the region (assuming we count the western terminus for this study, I-39), there are many opportunities for this study to be repeated. This would be true for any major city-region in the United States, and there are analogs throughout most city-regions around the world. This study examines Interstates 80 and 88 from I-294 to I-39 in the Chicago city-region. Interstate 80, being a corridor that developed during an era of industrial productivity in the region, is examined first, with development over time that really illustrates the idea of moving from high-density development to low-density corridor development. Interstate 88 further illustrates this point in the second portion of the study, showing development that occurred largely during the information economy low-density era.

To further refine the site of the study is difficult, as many of these municipalities have overlapping levels of government, as well as continuous development so as to make the distinctions between bordering municipalities one of arbitrary distinction more than some form of natural boundary. Even these boundaries, however, will be intermixed with some social boundaries as well, as life patterns within the city-region inevitably overrule any political boundaries. Such redefinition will be noted in the following discussion of each individual focus of research.

The eastern end of I-80 for this study takes in Thornton Township, including the Thornton Quarry, the rare massive industrial incursion within a major city-region's boundaries. This region, referred to simply as the Thornton region for the purposes of this study, is roughly along Interstate 80 west to Interstate 57, to the north including the villages of South Holland and Chicago Heights, east to Calumet and Lansing, and south through Glenwood and the surrounding communities. It is distinct to the surrounding regions by a political boundary to the east (the Illinois-Indiana border), Interstate 57 to the west, the Calumet River to the north, and a southern border that is approximate and involves the fading of developed land into agricultural land. Overall, this study region represents the industrial area directly south of the City of Chicago, with a variety of transportation routes, including river, rail, an extensive network of roads, and multiple Interstate highways.

Directly west of the Thornton study region is the Bremen study region, dominated by the Village of Tinley Park. Tinley Park provides an excellent opportunity for studying how a community can change with a combination of old and new development styles. It also has multiple political boundaries, existing in two townships, two counties, and bordering a number of other communities as well. This study region is central to the overall project, as it has had periods of both industrial and information-era development resulting in multiple city nodes. The original core of the city is still maintained, having been transformed from sporadic light industrial and a small commercial core to a community maintaining its residential character while also having commercial establishments along the railroad tracks, which have taken on a commuter rather than freight transportation nature. Other thoroughfares have become central to Tinley Park as well, with more typically suburban development radiating west and south of this older core. The population has grown significantly in recent decades, with new subdivisions bringing new residents and additional retail and service opportunities. Additionally, the community of Mokena is included in this study region, bordering Tinley Park to the west-southwest. Mokena has a similar downtown core centered on a rail station, and also has newer-residential development on its outskirts. It is a far smaller community, however, and is thus a secondary model to the larger Tinley Park, providing an additional example of this type of railroad community, something that is seen to a certain degree in both research corridors.

Such a pattern continues further west, with the New Lenox-Joliet study district. New Lenox borders Mokena to the west, and it too is a community built around a rail station, though its further development and expectations of further rapid growth make for an interesting example. Until the collapse of the real estate market, New Lenox was preparing for a ten-fold increase in population over the next quarter century. Some development has already occurred in anticipation of this growth, with a municipal site and the purpose of its construction being of particular interest within this study region. This portion encapsulates very handily the hazards of predictive development. In contrast, the city of Joliet, west of New Lenox, has experienced relatively little development for a city its size. Of note here is the downtown core, which is centered on a major rail hub for multiple rail lines, and the lack of commercial and residential activity present, despite a variety of municipal initiatives to attract variable traffic at different times of the day. For a city of comparable age to Chicago (and built with a similar variety of transportation routes in mind), Joliet has had great difficulty remaking its core into something relevant in the information-era economy. The perimeter of Joliet, especially to the more sparsely developed south, is generally of newer construction, with era-typical subdivisions and commercial retail featuring strip malls and big box store locations. The challenge for this study region is in becoming and remaining relevant without the need to repeatedly redevelop a great many sites.

West of Joliet, the Morris-Ottawa-Utica study region becomes a matter of relative attachment to the Chicago city-region. This is important observation for future work, as an understanding of an approximate boundary for the city-region that can be applied will help to keep future research constrained and appropriate. It is, however, a matter of degrees, as each community studied has different elements of being attached to Chicago. Morris, the most easterly of the three, is again a railroad town, but also the only one of the three to show significant residential expansion in recent years. This lends evidence to the nodal structure of the city-region, with alternate centers of activity: Morris could not be an effective residential community without relatively nearby commercial and industrial activity to supply employment. Morris is simply too far away from Chicago's downtown core to be an efficient residential community. This is even more the case for Ottawa, west of Morris by some 30 miles. While there is some new residential activity, it is more muted than in Morris. By comparison, it also has less in the way of strip mall style commercial development, with its older downtown core remaining the center of much of the town's activity. Further west – and smaller – still, Utica has experienced little development beyond its downtown core, and provides an example for how a relatively stable community can adapt for economic conditions, with growth not being an outright necessity for success.

The pattern along Interstate 80, as demonstrated here, is partially repeated along Interstate 88. The communities along each, however, are very

distinct, with different development paths resulting from different economic conditions. Interstate 88 is a different type of highway, too, holding its title as Interstate solely for speed limit purposes. While acting as a main regional conduit, it is not overly relevant outside the boundaries of the Chicago city-region, and it is contained in its entirety within the State of Illinois.

The eastern end of Interstate 88 is where the highway itself commences, branching off of Interstate 294 at Oak Brook, a community that is economically healthy and is primarily a commercial haven. Oak Brook features a variety of tall office structures, unlike anything seen along the Interstate 80 corridor. With few residential developments in the immediate center, and limited access to those outside of the core, this is very much a commercial space. With office structures, support businesses, and a wealth of commercial retail spaces, Oak Brook is unique in this project. Also, as this region is bordered by I-294 on one side and I-355 on the other, the community of Downers Grove is included in this study region. A much more traditional suburb than Oak Brook, Downers Grove maintains some of its character as a former rail station town with a downtown core. Yet, with its proximity to Interstate 88 and position between Oak Brook and Naperville, Downers Grove is almost inevitably vibrant. It is an excellent demonstration of how city-region health can be to the benefit of individual communities, rather than having it be a competition between communities for resources.

The Naperville-Lisle study region is one of the more ambitious parts of this research project, encompassing one conventional suburb and one very large community. Lisle mirrors Downers Grove in many ways, being a normal rail community that has maintained a great deal of its downtown core. Like Downers Grove, Lisle is in a position where it almost cannot lose, with the regional inertia guaranteeing a degree of residential and commercial demand. To the west, Naperville has expanded westward to meet Aurora's eastward growth, resulting in some very high-density commercial development, with massive intersections and parking lots. Yet, downtown Naperville is a pleasant, vibrant place, with beautiful municipal buildings, a cacophony of retail outlets, a small liberal arts college, and a historic residential district to the north, extending to the commuter rail line. The combination of development styles raises some questions about the decisions made more recently, and how such decisions should be managed.

The Aurora-Batavia study region extends both north and south of Interstate 88, straddling the Fox River. Aurora acts here as an analog to Joliet, though the two communities have taken divergent paths since their early industrial days. Both were major cities independent of the Chicago city-region in the late nineteenth and early twentieth centuries. However, Aurora has experienced more information-era growth, extending east to Naperville and with low-density growth in all directions. The downtown core shows more signs of development progress than Joliet, though both face challenges in repurposing

existing structures. There are also dangers in repurposing ineffectively and without an eye towards what the needs of citizen life-patterns are. Batavia, by contrast, was a smaller industrial town in the nineteenth century, and has since in many ways become a suburb to a suburb: it is to the north of Aurora, and lacks the immediate transportation routes present in Aurora. Batavia faces some issues with making their downtown relevant once again, with major transportation corridors passing outside of the boundaries of the community to the north and south. Having experienced a high level of low-density residential growth in recent decades, Batavia is an example of similar communities further north and otherwise on the periphery of the Chicago city-region, yet still within the logical boundaries.

Beyond Aurora, there is a collection of communities along Interstate 88 west to Dekalb. These communities by and large have no access to Interstate 88, so their ability to interact with the Chicago city-region is, in that way, limited. Dekalb, the home of Northern Illinois University, is by far the largest in this study region, has two access points to Interstate 88 - the only two between Aurora and Interstate 39, nearly 70 miles to the west. At the western terminus of the study region, Rochelle, Illinois shows signs of building on an economy that is mostly unrelated to the Chicago city-region. With extraction, agriculture, and multi-modal rail/Interstate facilities, Rochelle reinforces the idea that Interstate 39 marks a useful western terminus.

The Interstate 88 corridor, then, is one that tells of access and the lack thereof. By contrast to the trans-continental Interstate 80, Interstate 88 is more regional, creating a distinct corridor that has been able to develop more in the vein of the information era economy, with commercial headquarters and offices, residential development, and ample support services and commercial retail facilities. In contrast to the more established Interstate 80, this corridor has been able to adapt more readily, with many of the communities developing in concert with the new economy and the changes in demographics that have resulted from this.

These two research corridors are not meant to be exhaustive for the Chicago city-region, as there are many more Interstate highways and other transportation routes that must be understood in any effort to be exhaustive. Rather, this is meant to understand the corridors at hand, but also to use them as an example for how other communities are both interconnected, and also how other communities may act independently and in concert with their neighbours in developing and redeveloping with respect to the four imperatives as established in Chapter 1.

Methods

The primary method for this research project is direct observation. This is in the role of participant, as each study region will be experienced directly, both via automobile and on foot. The Interstate 80 corridor will be covered at

least once, with a great deal of the groundwork already completed thanks to my having lived along this corridor for many years. As a result, planning for research is a simple matter of making a list with the aid of several maps, and recording more exact details than organic memory can provide.

Interstate 88, however, is more complicated. Multiple visits will therefore be required in order to understand the corridor as well as Interstate 80 will be understood. On the first visit, a general layout of each of the communities to be studied will be conducted. On the second visit, identifying the key transportation routes, intersections, as well as commercial and residential zones will be carried out. On the third (and final planned) visit, more detailed analysis of these developments will be completed, as well as ascertaining the busiest routes in an attempt to ascertain common life patterns of citizens.

It is not reasonably possible to experience each of these study regions as a citizen experiencing a life-pattern, though. In order to do a completely proper job of this as a participant-observer, one would have to establish a residence – or multiple residences – in each study region, have steady employment that is within commuting distance, and then establish a routine that would form a life pattern. This would still only form one life pattern amongst many needed to get a picture of a community. To do this would be absurd, and falls within the purview of other fields, collecting demographic information and establishing firmly these patterns. More on the roles of other fields towards concrete action will be discussed in Chapter 5.

The first role will be establishing the primary transportation routes within a given study region. By establishing this, it will follow then to find the primary commercial areas of the community and how they are arranged. Observing the difference between older style development and newer development, and the resulting traffic patterns and accessibility for the basic needs that compose daily life patterns, is the primary goal for this approach.

The second role is then to determine what complications arise from these patterns, and then to suggest areas for change, laying the groundwork for the specific solutions and areas for further study in Chapter 5.

Finally, these study regions will be viewed as parts of an overall city-region, with steps forward for other fields and for the city-region as a whole to follow. Again, this project is not – and cannot manageably claim to be – exhaustive in what it is attempting to do, and is a first step in identifying problem areas and possible humanistic solutions going forward.

Methodology

As noted in the literature review in Chapter 1, this project is informed by a broad variety of texts, from philosophy and critical theory to urban planning and landscape architecture. For the philosophy behind this methodology, I have looked to texts that have also sought to crystallize the notion of a problem within the city-region and then focus that attention onto courses for further work towards solutions. Several texts have helped to highlight that direction.

In his twin tomes *The City Shaped* and *The City Assembled*, Spiro Kostof builds on a study of the urban form to draw conclusions about the present and possibly what work should be done in the future. In the latter, Kostof considers the elements of the city in turn, beginning prominently with the concept of the edge of the city, and works through public spaces, the street as a space, and the concept of urbanity itself before settling on the processes within the city-region that work against conservation. Considering the ecological and long-term economic imperatives established in Chapter 1, this is an important point to consider. More importantly, however, Kostof uses the accumulation of urban information to form a point on why things are the way they are, perhaps instead of how they could ideally be, and also as a means of informing a possible direction for the future.

In the opening to *Uncommon Ground: Rethinking the Human Place in Nature*, William Cronon addresses how bringing together an interdisciplinary group to rethink ecology and place was at its core a humanities project. Housed in the Humanities Research Institute at UC Irvine, the semester of research that lead to the text brought together many different minds that worked in a common environment, but each contributed a different chapter to the book. Likewise, this project is couched in humanities terms, and the contribution of this particular research is one chapter in the overall story of the redevelopment of the concept of the city-region in spatial and political terms.

Such a notion manages to, somehow, stand together with and in opposition to the approach taken in *Mutations*, the collection featuring the work of the Harvard Project on the City, Multiplicity, Sanford Kwinter, Nadia Tazi, Hans Ulrich Obrist, and Rem Koolhaas. Rather than lay out the interplay between these, the editing process here instead makes this collection self-evident by including basic statistics about world cities before the table of contents, acting as a kind of abstract. From there, this collection continues with various theses, collections of theories, data, graphs, collections of photography, and other disparate bits of urban knowledge. Such an approach for this project is very tempting, as the disparate bits of the Chicago city-region would make for a fascinating homage piece to *Mutations*, but for now, this project, while facing an equal amount of variety, is more standard in presentation.

Perhaps closer in form and intention is the also previously discussed *A Pattern Language*. While Alexander et al speak of a way to assemble that is quantitative in nature, their approach to building a language of construction is more of a qualitative approach with a careful eye on categories and their orientation. This project will operate in much the same way, identifying life patterns based on residential and commercial needs, and how these have developed depending on economic age. While quantitative methods would bear fruit with this project, as they would for *A Pattern Language*, the qualitative approach taken as a participant-observer is fitting with the spirit of citizen involvement in decision-making and in the organic nature of urban development.

As always, this is not to imply that quantitative methods are not valuable to this approach; in fact, they would prove most useful to additional components of this research from other fields.

This is also the case for John Friedmann's work, *China's Urban Transition*. While couching it in quantitative terms would have provided interesting statistical analyses, Friedmann instead uses history and observation of the present to weave an image of the current state, and in the process predicting and suggesting for the future. Likewise, this project is attempting to weave together, through observation, what was and what is, and what can be done in the future to make these citizen life patterns more in line with honouring the four imperatives identified in Chapter 1.

Finally, there is the case of David Abram, author of *The Spell of the Sensuous*. Abram is identified in the preface to the text as an ecologist and philosopher, as well as a sleight-of-hand magician. Within the text, and while staying couched in ecological thought and philosophical roots, Abram draws on everything from Native American storytelling, Balinese shamanism, and his own personal experiences to tell the story of the connection, and sometimes disconnection, of humans and the natural world around them. Likewise, this project, while rooted in the humanities traditions of theory and philosophy, reaches out to experts in other fields and in other, sometimes unusual, places to build a theory of one part of one city-region, and in doing so, always being a participant, a user, a citizen within the city-region. It was also where I spent

many of my formative years, the Chicago city-region, so I am inexorably connected to the people and places contained within this study. With this in mind, and as it is important for the experience of a citizen, I have included within each study region multiple images, either from the past or from my observation sessions, giving a narrative glimpse of a few moments. It is the overlapping of these moments, these experiences, thoughts, dreams, and actions that creates the fabric of the city-region, and ultimately, through the manifestation of will, the shape of the city-region itself. It is, therefore, essential to be cognizant of how this will takes form and what it is that citizens want.

These other texts are the credibility for the methodology behind this project. Ultimately, the methods employed herein were as much organic as anything else, with the act of observation revealing their importance, and their approaches underlying the importance of acknowledging this project as a first step rather than as a finished product. Just as the city is never truly finished, neither will this work. Rather, it is the consciousness of the needs involved herein that will, ideally, lead to city-form that honours the four imperatives and by doing so serves the needs of its citizens.

Conclusion

This project will forever be changing, and will be obsolete the moment observation is completed. It can be revised endlessly, either with each new

piece of infrastructure, or with the addition or subtraction of citizens. Rather, then, the point of this project is to establish a snapshot of a portion of the city-region, thereby providing a canvas upon which we may employ our imperatives and see what suggested courses of action may be taken for this particular context. Ideally, these patterns can be recognized and will then not need to be repeated for every portion of every city-region. Rather, patterns for addressing citizen need, while certainly not universal, will ideally present themselves as a method, a template to apply to any such situation.

No, this project cannot be exhaustive, because the city-region never stops changing, and it literally never stops, with both the physical-landscape and human webs of interactivity that make definitive stopping points tricky at best. The borders within the sites of this project are more for convenience than for actual division. There is no homogeneity within this project, just as there will be no standardized solutions, as every place and every person is more varied than that can make possible.

Ultimately, this project, through site, scope, method, and methodology, reveals itself as one of remarkable context, but also one that highlights the universalizing of the suburban experience. By understanding the processes that are occurring in two economically and historically different transportation corridors, there is an opportunity for a comparative study, and the first tentative steps towards conclusions on what is more universal in nature, what is unique to given study regions within city-regions, and what falls somewhere in between as

a trend. This research project is, then, a scouting mission of a sorts, but one that is trying out new qualitative metrics (if such a term can be allowed, by either qualitative or quantitative parties, to exist) and seeking to empower citizens to have their communities reflect their values and life patterns. It is a project of experience, like the act of being a citizen, and one that endeavours to understand this snapshot in time, build on the work of the past, and be a stepping stone to a better built future.

Chapter Three – Interstate 80

"This is NOAA Weather Radio KZZ81 Lockport. Severe weather is occurring or forecast to occur in our listening area. Standard broadcasts will be curtailed to bring you the latest severe weather information." - NOAA Weather Radio, May 2011, during observational research

Alan Berger, in the massively impressive *Drosscape: Wasting Land in Urban America*, highlights how, since 1977, Cook County has experienced a 35% decline in manufacturing establishments, a loss of over 4000 individual businesses (103). This manufacturing capacity has moved further out, to the 30 to 45 mile radius from the city center (ibid). Interstate 80 is a portion of the southern and southwestern limit for this radius, marking a combination of old, industrial development along existing transportation with newer speculative construction and low-density growth on the edges of the Chicago city-region.

This examination cannot be exhausting, as it would require volumes rivaling most encyclopedias to go into the level of detail required to document every interaction between citizen and landscape, every interconnected point between built spaces, and to do so throughout the approximately 100 miles of the study area. As the purpose of this study is to illustrate points about the nature of the information-era city-region and possible future courses of action that honour imperatives beyond the short-term economic, such an exhaustive compilation will not be necessary, though, like Alexander's *A Pattern Language*, could prove monumentally useful as a future direction of research.

With the purpose here to be illustrative, the study region has been broken down into four areas: Thornton, Bremen, New Lenox-Joliet, and Morris-Ottawa-Utica. The first three fall roughly along township boundaries, though each community or communities involved are not necessarily centered on Interstate 80 itself. In the case of Thornton, a series of communities here collect together to form part of the continuous development between the City of Chicago proper and the outlying areas. Moving west, Bremen Township primarily includes the village of Tinley Park for the purposes of this study, a community that has growth experience from both industrial-dominant and information-dominant periods. It also exists as Berger describes between the low-density population gaps beyond the fifteen-mile radius from the center of Chicago and the borders of the city-region. Tellingly from a social perspective, it also is buffered from Thornton by forest preserves. New Lenox has experienced phenomenal growth, with a fifty-year period, barring economic or social changes, predicting a ten-fold increase in population. The resulting increase in footprint and speculative land development will attract special attention. This portion of the study will also include some examination of Joliet, an industrial city that has experienced growth in all directions around it similar to the development of New Lenox. Finally, the Morris to Utica stretch has in common the fact that it lies beyond the city-region borders of Chicago, but still is connected via a major transportation route. As a result, the growth is more nodal, reflecting a distinct city center with surrounding rural land. There is still

much agriculture in this region, as well as a state park as the western terminus for this study. Here William Cronon's work on human space and the concept of the nature preserve will help us to understand how future city-region growth may affect these areas and how we should consider future different uses of land.

The direction of this study will be east to west, allowing the reader to experience this city-region as it may be experienced by someone traveling by car along this Interstate. It also allows the study to begin with older industrial-era growth, moving west towards examples of newer information-era low-density growth, and finishing in older minor urban cores with surrounding rural land. Each provides a different model for development and a different relationship with, as Hill and Feagin describe in their article "Detroit and Houston in Global Perspective," "spatial locations in a globally interdependent system of production and exchange" (155). We cannot pull, say, LaSalle or Glenwood or Plainfield out of the Interstate 80 thread without considering all of the ways in which they are connected. The overarching lesson in this portion of the study, in fact, is the way, regardless of how different each individual location may be, they are all related to the progress and organization of their own regions and borders, as well as the greater Chicago city-region.

Thornton

Image – Iris

The hardest thing to imagine when parking at Hubbard Park in Thornton, Illinois is the scene being normal anywhere else. In front of me is an empty field, the type where children would play soccer or fly a kite or have a picnic. To the right is a baseball/softball diamond, and behind that a school. Far beyond that is Interstate 80, the truck traffic audible across the expanse in between in the mid-day sun.

It is the expanse that makes all of this so surreal. That expanse is the Thornton Quarry, a waypoint of my childhood, spotted from the back of a station wagon or minivan going to or coming from some trip or other. Between this enormous industrial incursion and the other wonder to a child – the highway oasis, a restaurant built over a road, seemingly impossible to the brain of an 8-year old – the drive along the combined Interstate 80 and 294 through the farthest eastern portions of Illinois was always far removed from my suburban neighbourhood.

Standing on the edge of the giant limestone quarry, “Fred Flintstone’s House” as my father and I called it growing up, I find myself wondering all the places the rock from its depths has gone. How many times have I walked across it? Entered a building constructed atop it? I am standing right next to it, and yet, I feel as though I am still so far away from it. It is vast, it is unusual, and how it fits in the modern city-region is entirely questionable.

Orientation & Observation

Thornton, for this study, includes consideration of the nearby towns of East Hazel Crest, Hazel Crest, South Holland, Harvey, Glenwood, Chicago Heights, Olympia Fields, Ford Heights, Homewood, Flossmoor, and Lansing. These towns all border on and in some way participate in the immediate economic activity, notably industrial, evident in the area around Thornton. This area lies predominantly east of Interstate 57 and west of the border of Illinois and Indiana, though some of the associated development spreads west of Interstate 57. This area encompasses both north and south of Interstate 80.

The primary feature in the Thornton area is the Thornton Quarry, a large industrial/excavation incursion. It is unusual for such major incursions to exist within the boundaries of a major metropolitan region, but this region was not as much of a low-density development when the quarry was founded as it is today. In fact, the first of the quarries to be dug in the area was in 1838, with larger quarries well in operation by 1886 (thornton60476.com). This development, along with the nearby I & M Canal and the subsequent railroad construction, laid the foundation for a thriving industrial community. Thornton developed within easy transportation distance of a major industrial and transportation city, Chicago. As a result, rail development in the area has been notable, with major industrial sites – including the quarry – connected by rail, and also a major rail yard operated by Canadian National north of the quarry site. The addition of several nearby Interstate highways has reinforced the importance of industrial

development in the latter half of the 20th Century, though this was predicated on industrial growth that is not necessarily as relevant going forward as it was in the past.

The quarry itself shows signs of being developed in stages, with two main digs that are bisected by the rail line. Most of the quarry lies south of Interstate 80, though the eastern portion also extends well to the north. To the southwest of the quarry is newer commercial growth, with a Menard's hardware store the closest among many big box-style development structures along Halsted Street, a major regional artery. To the southeast is an older (judging by the architecture, probably 1950's era) grade school, Hubbard Park, and a few single-family residential structures between the park and the adjoining Williams Street, which extends to the north, going past South Suburban College, the regional community college, running parallel to several rail lines, and ending near an industrial development in Dolton adjoining the Calumet River. Williams Street does not extend far to the south, going through the processing facilities for the quarry (to the south of both the quarry and the small residential neighbourhood adjoining Hubbard Park) before changing names several times in rapid succession while going through adjoining forest preserve land. The road itself ends while winding through a residential development in the village of Glenwood. The area between Halsted Street east to Illinois Highway 394 and south of Interstate 80 is mostly forest preserve land with the exception of the quarry, its associated processing facilities, limited residential developments, and

two commercial developments. This has the effect of isolating this large industrial incursion, though it still comes to dominate the area. The slightly haphazard road patterns as a result of this development also leave their mark on the development of the region.

The entire area, in fact, shows signs of industrial-era development. From the automobile development in Ford Heights and Chicago Heights – Ford produces the Lincoln MKS and Ford Explorer at a nearby facility in the Hegewisch area of Chicago – to the numerous small production facilities and business campuses that dot the surrounding landscape, industry has been an integral part of the development of the region. This is most telling from an aerial point of view, with older neighbourhoods showing the typical grid pattern of mid-twentieth century development. Newer developments show the swooping and randomly curved streets derided by suburban critics such as Duany et al.

Much as Detroit has been struggling for identity since their post-War decline began to gather pace, this part of the Chicago Southland has been struggling to find a post-industrial economic solution as the rest of the Chicago city-region has moved to finance and technology as major sources of employment and income. As a result, while this new suburban development has been taking form, an equally interesting process of random commercial redevelopment has provided fresh opportunities to create community space and

reinforce the value of older communities, such as Homewood, Flossmoor, Lansing, and Glenwood, within the region.

South of the quarry is the processing facility, a chalky white landscape of stone and gravel, with concrete and paving companies tucked away behind the mounds. Larger industrial buildings are unlabeled, towering overhead and across Williams Street. A single solitary tavern gives testament to the past and present employment provided by the quarry. South of this is a cemetery, in eerie opposition to the steady moving of the earth on the other side of 183rd Street. Further south, along Chicago Heights-Glenwood Road, there is a larger, big-box style development carved into the forest preserves, a small business park branching off along Science Road to the east. North and south of this complex is residential and municipal land, the northern stretch the closest residential land to the relatively well-insulated work at the quarry aside from the homes adjoining Hubbard Park. For being such a major industrial incursion, it is remarkably far away from residences considering the population density of the region.

Further to the south are the communities of Chicago Heights, South Chicago Heights, and Ford Heights. What is interesting here is that here is another collection of communities that were heavily reliant on industrial activity, and have suffered greatly as a result of the decline of industry in the region. This is notable only because the surrounding communities are relatively prosperous, highlighting how local issues of economy and landscape can be. It

is in the interests of all local governments to collaborate in these situations to assist the development of the entire region as a whole.

To the east of the quarry, forest preserve land eventually gives way to the village of Lansing, a densely populated suburb that adjoins the border with Indiana. Driving along Ridge Road in Lansing, in fact, the driver would have few clues that they have crossed the border into Indiana aside from lower gasoline prices and different lottery games on offer. The community of Munster, Indiana is essentially seamlessly integrated with Lansing in every way except for political renderings. Lansing is constructed on a conventional grid format, allowing several routes into and out of neighbourhoods. Ridge Road, Burnham Avenue, Wentworth Avenue, and Torrence Avenue are busy roads in the area, typically where commercial development exists, though residential is frequently mixed in.

North of Interstate 80 and the quarry is notably different, as major boundaries like an Interstate tend to create. The communities of South Holland, Phoenix, and Harvey directly adjoin the Interstate, and none of the three would be regarded as economically vibrant. Strip malls on major arteries such as 162nd Street are partially full, and spaces clearly built for specific chains have been repurposed to house new businesses. This area, which extends north to include Riverdale, Dolton, Dixmoor, Posen, and Robbins, not only has depended on industrial activity for economic benefit, but also has tended to be primarily made up of citizens who are minorities, meaning that they are historically politically and economically under-represented. In both an industrial and

information development climate, this puts this region at a significant disadvantage for attracting new investment, and strongly suggests that a collaborative approach would be in order to tackle the problem. While these communities do not display the competitive nature of the communities in subsequent sections, closer integration into a city marketing model of regional promotion would be in order to make the most of resources and have the best chance to attract capital.

From a site-specific perspective, there is nothing in the region aside from the quarry that poses a massive challenge for redevelopment. Indeed, several communities have engaged in innovative attempts to break out of the single-use zoning models to better integrate a sense of community and to bring more amenities to the life patterns of citizens. A curious sight along 183rd Street in Country Club Hills – just east of the forest preserves that separate this region from the adjoining region, which will be explored in the next section – is the Heritage Plaza Shopping Center, unremarkable in its own right, but an example of innovative thinking in site redevelopment. Built with the appearance of once having one of the major grocery chains as an anchor store, this strip mall houses a Dollar General, a teachers supply store, a liquor store, and a post office. What is more unusual is what is next to it: a community amphitheater. The Country Club Hills Theater adjoins the shopping complex on one side and the City Hall on the other, symbolizing a unique collaboration between the village and local business. According to the Theater's website, local businesses

provide the concession services, showcasing their wares in a venue that is renowned for its R&B shows (countryclubhillstheater.org). This is unique because, rather than drawing in a major concession company, the village decided to invest in the local community to provide awareness and reinforce the idea of community.

It is also of note that the Theater is located within preexisting development that was a bit more typically suburban. By placing the Theater along a major thoroughfare - one akin to 171st Street in Tinley Park as we will explore in the next section – the village was assured of high visibility and an increased probability of being a part of the life patterns of citizens on a daily basis. This stands in opposition to how New Lenox has handled their performance venue, as we will explore in the New Lenox – Joliet section. This facility is well integrated into the community of Country Club Hills, but also is easily accessible to Flossmoor, Homewood, Hazel Crest, Markham, Olympia Fields, and most of the other communities on the western end of this region.

This development, however intelligent, does not solve the larger issue of employment in the area. The quarry and similar industrial sites can only employ so many citizens, and the continuing trend towards automation has made those jobs even scarcer. Yet, with easy access to multiple transportation options, this region is ideally situated to develop more in an information-era mode.

Analysis - Challenges

The potential for individual site remediation varies throughout this region, though the most obvious feature – the quarry – is perhaps better used as it is currently being used: a repository for overflow water from storms. Such a large industrial incursion will need a radically different concept of ecology and land use before it can be put to use more in line with the needs of the region.

Sites beyond the quarry, however, do not face the logistical challenges of a giant hole in the ground. Instead, the challenges are political and economic. The region features a large work force, established infrastructure, excellent transportation features, and proximity to a second-tier global city in the form of Chicago; there should be no question that the region is positioned to succeed. But what needs to change in order for that success to follow?

Of the political challenges, the biggest lie in the isolation and disparity between communities within the region. Relatively prosperous communities like Homewood – to say nothing of the very prosperous Flossmoor – stand in stark contrast to communities like Phoenix and South Holland, just a few miles away. It would be tempting to say that integrating these communities would spread the wealth around, creating more equality. The goal with development, however, is to add wealth and opportunities to a region, not to spread around existing resources. Regional coordination and a unified political face are in order to get these communities moving in the same direction and provide the muscle to attract the investment for which the region is currently being overlooked.

On a smaller-scale level, the communities immediately surrounding the quarry and on opposite sides of Interstate 80 should work on creating viable corridors for people, goods, and services. While the Interstate connects these communities to both oceans, it also bisects the area. With only a handful of major roads that serve both sides of the Interstate, more needs to be done to strengthen these existing connections. In addition, the forest preserves, while desirable as places for a variety of uses (see the Bremen-Tinley Park section for more on the Forest Preserve System in Cook County), has also encouraged very haphazard road construction, resulting in a strong disruption to the efficient grid system in the surrounding areas. This acts as another barrier to redevelopment, though it is one that will require innovative thinking rather than paving straight through the existing preserves.

Ultimately, the area is ripe for providing distribution services and multi-modal sorting facilities with its near proximity to both heavy road and heavy rail infrastructure. While there is not immediate space for the type of warehouse facilities this would require, there is land to the south that is dis-used industrial and agricultural, providing an opportunity for the kind of speculative warehousing facilities that communities much further west on Interstate 80 have effectively exploited. This seems to be the most direct route to attracting investment, though the proximity to Gary-Chicago International Airport should not be discounted, nor should the plans for the currently undeveloped Chicago-Peotone Airport. The prospects for the Chicago Southland would look much

brighter if that development took place and the economic climate allowed the city-region to support the expansion.

Conclusion

The Thornton region, and the Chicago Southland in general, need better coordination and integration to advance from a long-term economic perspective. Such long-term thinking would also allow for the other imperatives to be considered, rather than individual communities seeking short-term economic advantage. The biggest challenge is taking a region that is already amply developed repurposing sites for new functions, all the while competing with other regions that are converting undeveloped or agricultural land for the same use.

This region is experiencing a smaller-scale version of what is occurring in Detroit. According to Feagin and Hill, the problems facing Detroit (and Houston) are related not only to a decline in industry, but also in a lack of diversity in economic interests, with the failure and decline of one industry meaning the economic fabric of the region is thus torn (155). The proximity to the successful Chicago city-region provides more opportunity than Detroit may face, as there is a nearby economic engine from which the Thornton region may benefit. It is down to regional authorities to devise plans that best fit this opportunity and to create for themselves the advantages that other regions have been able to simply carve out of empty ground.

Image – Shutter

The security guard is eyeing me slightly, but he relaxes, for unknown reasons, when I start taking pictures of the giant limestone mounds and make some notes. All around me are machines, with a deep hum that is buzzing my ears, but for some reason I cannot feel it like my body tells me I should. There is little traffic, and the parking lot of Hanson Cement is half full. The security guard is only person I can see on the premises.

Across the street and down a ways, outside the tavern, two older gentlemen are talking while smoking. Even they seem to be standing idle, waiting for there to be something else to do, much as I imagine the rest of the region is. They finish and go back inside. I finish, too. I have more work to do this afternoon. It's hot out, and it feels like the dust from the stone is sticking to me. The security guard waves as I drive off, drive west, drive back towards what used to be home with Fred Flintstone's House again in my rear-view mirror.

Bremen – Tinley Park**Image – Iris**

It is 6.24pm, a weekday, the early summer sun well up in the sky. It is time to pick my wife up from work, the hour-long commute via commuter rail a common theme for many hundreds of residents. It's time for dinner, and with a long day of work for both of us, neither of us will be in the mood to cook.

Instead, it's south on Oak Park Avenue to our favourite pizzeria. With only five tables inside, the first visit for most is to underestimate the place. After a few years of being regulars, for us, it was a second home, where not only did we have a "usual" instead of having to have our order taken, but it was made clear to us that we knew where the refills were if no one was out to serve us.

After long days in downtown Chicago – I worked there one or two days a week – amidst the anonymity of the crowds, it was nice to come home, to our neighbourhood, and be able to put our feet up with friends, a place where they knew our names.

Orientation & Observation

What is perhaps most unique about the position of Bremen Township is the way it is separated from the Thornton region to the east and the more residential suburbs to the north by forest preserves. For the purposes of this study, Bremen Township's examination will primarily focus on Tinley Park, a community that straddles both Cook and Will counties, and is actually a part of three townships and one other area: Bremen, Rich, Orland (all in Cook County), and the portion of Tinley Park in Will County. The development can be measured, however, through the long-term, industrial-era development of Tinley Park in Cook County, and the information-era low-density development typified by the recently developed Will County portions of Tinley Park. As we will see, it

is a smaller-scale version of John Friedmann's city marketing model of competitive development.

The forest preserves surrounding Tinley Park buffer the community from the traffic Interstate 57, which has a junction with Interstate 80 east of the main populated areas. Further north, Interstate 57 borders the neighbouring community of Oak Forest instead of Tinley Park. Other forest preserves bordering the northern edge of Tinley Park lead to a northwest border with Orland Park and Orland Hills, an area with a great deal of commercial development. Other borders to the west and south are with more forest preserves, Mokena, and Frankfort Square. As will be noted in the information-era growth section, some of these borders have proven contentious with conflicting ambitions resulting in political flare-ups.

With a history going back to 1869, the Forest Preserve District of Cook County has a diverse range of land holdings that are presently managed for a variety of stakeholders and needs. According to a history assembled by the District, prominent Chicago architects Jens Jensen and Dwight H. Perkins concluded that an opportunity existed to not only acquire land, but also "for preserving country naturally beautiful" (fpdcc.com). The territories laid out by the architects include areas closer in to the city than Tinley Park, including the Sag Valley, Palos Heights, and Blue Island Ridge. Still, the spirit of the modern District was established by this report from Jensen and Perkins from 1904. The land was to be preserved "for the benefit of the public in both the city and its

suburbs, and for their own sake and scientific value, which, if ever lost, cannot be restored for generations" (ibid). This is an important definition for its time.

As Cronon points out, saving an area for that area's sake is part of the turn from wilderness as savage and desolation to wilderness as Eden (70). The distinction Jensen and Perkins makes allows for room not necessarily for "pristine" land, but for park land, as the Forest Preserve District was founded based on a need for available parks for the citizens of the Chicago area.

The portion of the District involved with Tinley Park and the greater Bremen area is Region 8, though one territory of Region 7 borders Tinley Park to the west – the Orland Grassland (fpdcc.com). Otherwise, the District lands on the border of Tinley Park are the Catalina Grove Family Picnic Area, Bremen Grove, Camp Sullivan, Camp Falcon, Yankee Woods, St Michiel Woods-East, Tinley Creek Woods, the Tinley Creek Model Airplane Flying Field, and the George W. Dunne National Golf Course & Driving Range (ibid). These lands involve not only the preservation of the "natural" or alternative ecosystems, but also are designated for specific recreation activities. These are, thus, very much human spaces.

But they are human spaces that pose a problem for one of the four main imperatives in landscape development: the economic. This is land that, by decree and by what it is, cannot be developed for other economic activity. Nor can it be developed to alter social needs, though this is a less direct effect. As we will see when we get to the Will County portion of Tinley Park's

development, having an extensive part of the border unavailable for development in the midst of a small-scale quasi city-state scenario results in other land areas being forced into new use.

For the remaining Cook County portions of Tinley Park, it is important to begin with the downtown area, built around the train station. The station, built within the last decade and designed by Legat Architects as a part of Tinley's downtown redevelopment plan, was supposed to embody a "Main Street USA" motif (legat.com). This "Main Street" is Oak Park Avenue, a central business district for Tinley Park. The train station is along the Rock Island line, a railroad line that handles freight traffic as well as Metra commuter passenger traffic. Though many of the buildings along the north side of the tracks on Oak Park Avenue have been rebuilt in this same time period, there is still a largely independently-owned business feel to the downtown. A new feature is the addition of condominiums in the area, creating a mixed-zoned atmosphere that encourages the kind of overlapping schedules and purposes and classes that Jane Jacobs highlighted as being essential for a thriving community. Indeed, a walk down Oak Park Avenue on a Friday evening is to see a mixture of professionals disembarking Metra trains after working in Chicago, individuals of all ages out for a night out at restaurants or bars, etc. This development pattern changes about a half mile further north, past 171st Street, and certainly by the time you reach 167th Street at the one-mile mark. Here the return to a kind of small-scale strip mall development encourages automobile use over

other forms of transportation. Further north beyond that, towards 159th Street, results in increased speed limits, four-lane traffic, and larger big-box style development, including Menard's (a regional home improvement chain), Hobby Lobby (a large hobby and craft store), as well as two gas stations and a large car wash. Harlem Avenue, a further half-mile west, has even more development, as will be discussed later in this section.

On the south side of the tracks there is more commercial development, though it is lower density and tends towards single-zoned land. A decade ago, a new middle school was constructed about a mile south of the train station, essentially marking the southern terminus of commercial zoning. Residential developments make up the remaining development – excluding commercial sites on the corner of a busy intersection – until Oak Park Avenue reaches Interstate 80, at which point it serves as traffic access for mega-development including the First Midwest Bank Amphitheater (a major regional concert venue), CarMax, Odyssey Fun World (a kind of arcade/miniature golf/go-cart family establishment), and other space not yet developed.

This style of community development, especially north of the train tracks, has been a success, but it is not the only model of development within Tinley Park's Cook County boundaries. One half-mile west of Oak Park Avenue is Harlem Avenue, a significant four-lane thoroughfare in the southwest suburbs of Chicago. Development here more closely resembles that which we typically consider to be suburban: strip malls, grocery stores, and other venues where

the automobile is the heavily preferred method of access. The northern boundary is 159th Street, a major four-lane - plus turning lanes - intersection of two Illinois state highways. The west side of Harlem at this point is a combination of big-box retail development and strip mall-style outbuildings. These last for a half-mile, then are interrupted by wetlands at approximately 163rd Street. The remaining west-side portion of Harlem Avenue north of the train tracks is residential, with commercial corner buildings. The east-side development of Harlem Avenue is similar, though with fewer big-box developments are more emphasis on strip-mall style development. This is punctuated by the same wetlands, but otherwise continues further south as commercial development than the west-side, not becoming residential until 173rd Street.

South of the train tracks, the campus of a mental institution, several of whose buildings are now used by other organizations, takes up the west side. Beyond that point, there is one gas station and then the interchange with Interstate 80. South of this is a large, recent commercial development featuring a large number of big-box retail locations and smaller strip mall outbuildings. Commercial spaces include Target, Michaels, Best Buy, Kohl's, Old Navy, Office Max, PetSmart, Dick's Sporting Goods, TGI Friday's, Bank of America, and more than two-dozen other smaller retail establishments. There have been additional plans to develop the surrounding areas, which are currently agricultural, though no progress has been made in that regard. The east side of Harlem Avenue

south of the train tracks continues to be residential until the intersection with 183rd Street. At that corner, a hotel and convention center has been built, with outbuildings including a gym. Across the street, on the north side of 183rd Street, a strip-mall style development has spawned further, similar development east along 183rd Street. What is curious here is that there is one development very similar to the mixed-zoned structures along 183rd Street. One building has condos above and adjacent to commercial development, reinforcing the idea of the mixed-use development being good for community. However, this is in a part of town where it would be almost impossible to complete life patterns without an automobile. Indeed, the proximity to Interstate 80 seems to indicate access to regional transportation is essential.

Another major thoroughfare for Tinley Park is 159th Street, though only the south side of the street is a part of Tinley Park. It is exclusively commercial, with a heavy emphasis on automobile dealers. This is a good symbol for accessibility for this part of Tinley Park, as 159th Street features the type of development that predicates the needs for an automobile: non-interlinked strip-mall style developments without effective multi-use ways to navigate them. Only 159th Street serves as an effective conduit for transferring this automobile traffic. This development style mirrors that of the other side of the street, the hallmark of the village of Orland Hills. A majority of the land in Orland Hills is zoned commercial, and it experienced most of its development in the major

boom time of the shopping mall and strip mall. Tinley Park, it seems, mirrored the growth on its side of the street the same way.

As mentioned earlier, Tinley Park faces challenges to expansion on most sides, especially the north and the east. Instead of remaining within these boundaries, as part of the development boom of the 90's and into the 21st century, Tinley Park annexed a great deal of land on its southern border in Will County. Most of this became the Brookside Glen subdivision, a collection of primarily single-family homes carved out of former farm fields between 80th and 88th Avenues and south of 191st Street. Being a mile west of Harlem Avenue and a mile south of Interstate 80, Brookside Glen is well away from the older, preexisting portions of Tinley Park. The older portions of Tinley Park were developed along and near the train station, abutting the Rock Island Railroad. This industrial-era growth, with proximity to the movement of goods being essential, has been replaced and epitomized in Tinley Park by growth such as Brookside Glen – car-dependent, low-density, with strictly separated zoning. Space has remained on the periphery of the development for commercial and speculative business park/warehouse construction, though much of this land still bears the mark of agriculture rather than development, as the financial crisis that began in 2008 has sharply curbed development in the area.

More significant in the expansion of Tinley Park has been the joining of exurban areas, ones that otherwise were not connected to the Chicago city-region without significant breaks in development. Along Tinley Park's southern

and south-eastern border are new connections with Rich Township and Frankfort Square, a small community north of the village of Frankfort, a prosperous and historical town along both a railroad line and US Highway 30. Frankfort has experienced similar growth to Tinley Park, as have Mokena and New Lenox, communities connected to the south and south-west to Tinley Park. The former of the two has a tale similar to Tinley Park's, though it has always been a smaller development that, like Tinley, is centered downtown around a train station. Indeed, they both have commuter stops on the same rail line. Mokena also had rapid residential expansion on its periphery, but it too is relatively of smaller scale, with development somewhat constrained by more forest preserve land and borders with neighbours. The situation New Lenox has experienced will be explored in the next section.

Tinley Park's western boundaries are, too, fairly well-defined, though there was significant disagreement with the village of Orland Hills regarding some annexation of property. This has been resolved, but again reflects a city-marketing model taking place on a suburban scale, with individual villages competing for resources – in the form of tax dollars, infrastructure, and residents – rather than collaborating for the benefit of the entire region. The complications from this competition will be felt in the years ahead, as changes to infrastructure will prove more desirable to attract investment and as competition to lure jobs instead of simply residents to the region intensifies.

Analysis - Challenges

The remarkable growth that Tinley Park has witnessed in the last two decades has come to an end as far as expansion is concerned. Both the economic downturn's effect on property values and the village's expansion to borders on all sides have made available space beyond the historic boundaries of Tinley Park all but impossible. Future growth is most likely rooted in redevelopment of sites and repurposing existing zoned land. Some possibilities for this will be explored here, while a full consideration of remediation opportunities will be presented in Chapter 5.

Tinley Park's major asset has been its development of downtown Tinley Park, the area surrounding the passenger train station at Oak Park Avenue. Conversely, the station at 80th Avenue can accommodate a greater number of commuters and can serve as an additional center of the village. 171st Street offers some intriguing possibilities for sustainable development in the future, while other areas will require cooperation with surrounding villages to be redeveloped in a sustainable manner.

The idea of sustainable in this analysis is not one that directly engages with ecology, or even any of the four imperatives (economic, social, political, and ecological) in its entirety. Such consideration will also be reserved for larger-scale remediation suggestions in Chapter 5. Here, sustainable is used in the sense of the infrastructure and needs to maintain daily life patterns being met. The support for this definition is a combination of Jacobs' "Great

Neighborhoods” ideal and Luke’s embracing of time and change influencing a place and making it both unique and a community rather than a development. With this specific lens for the idea of sustainability, the current condition of the village of Tinley Park and Bremen Township at large reveal the strains of success and the possibilities for consolidating good growth and the sense of community into the long-term story of the area.

As previously discussed, downtown Tinley Park along Oak Park Avenue is a mixed-zoned development that has attracted significant redevelopment within the last decade. The focal point, the new train station, serves nicely as a community anchor with pleasant architecture and accessibility of the whole area via a variety of transportation methods. What is unique about this center is that one axis is typical two-lane road and the other is rail. Future challenges for this development rest in future economic trends, with both the road and rail needing to stay relevant to make this downtown core work. This largely rests on the assumption that rail travel will remain as robust as it has been, which is tied into the economic development of the Chicago city-region at large, with Chicago being the main terminus for local rail transportation. Other possibilities are transportation to near south side of Chicago for White Sox fans, as well as travel west to New Lenox and Joliet, if economic development and redevelopment continues in this area. This will be discussed in the next section of this chapter.

The mixed-zoning development in the downtown core of Tinley Park, with walkable access to all of the amenities of the neighbourhood, is something that

could and should be maintained throughout the village. The train station at 80th Avenue has a different look and a different, more car-centered approach, something that can be addressed going forward considering the development pattern of the area. The most striking feature of the train station itself is its lack of features: it is a model of efficiency, a very small, rectangular building that would not register as ambitious on any architectural scale. While the term “ugly” may be un-academic, it would apply here[^]. The surroundings are equally stark, with ocean-like parking lots on both sides of the track. The nearest commercial structures are beyond the north parking lot, consisting mostly of a strip mall, also with ample parking, and facing the street and not the residential development further to its north. The south side of the tracks is a mixture of non-commercial structures, including a new library^{*}, the village police station, and a women’s shelter. On both sides of the tracks, on the west side, is residential development, though 80th Avenue is a relatively busy four-lane road that is not as simple to cross as Oak Park Avenue is. While it would be possible to redevelop the site around the train station to act as a second village core, it is more likely that such centering would be further north on 80th Avenue, at the intersection with 171st Street.

[^] Indeed, since the completion of this research, Tinley Park has rebuilt the 80th Avenue station into a site that perhaps even surpasses the Oak Park Avenue station in architecture, amenities, and possibilities for surrounding development.

^{*} The former library site was north of the train tracks, just west of Oak Park Avenue on 171st Street, integrated into the surrounding neighbourhood. The new library does not abut any residential development.

This intersection brings together old civic development with new civic development, with an old park (with batting cages, miniature golf, softball fields, etc.) to the north of the intersection connected via a path with a new park (with fields, an indoor fieldhouse, baseball diamonds, and a water park) on the southwest corner of the intersection. Small-scale commercial development on the other two corners, in the form of strip malls, is balanced by residential developments surrounding them. Further to the west is one of two high schools in Tinley Park, and zoned development of all flavours can be found in all directions from this intersection. While this does not offer the mixed-use zoning found along the Oak Park Avenue corridor, Tinley Park has zoned intelligently by having a major corridor in 171st Street that finds a terminus at both ends exclusively in Tinley Park and features limited commercial development. As a result, congestion is not nearly as severe as other area four-lane roads featuring more dense commercial development. The challenge Tinley Park faces in this area is balancing four-lane roads with the need to make such neighbourhoods accessible by more than just highways. Finding this balance, while tricky, is key to developing community in an area that is already unique while still being a conventional form of modern development.

Other areas of Tinley Park, however, will require collaboration with surrounding villages in order to redevelop them into more navigable, less car-dependent forms of development. The intersection of 159th Street and Oak Park Avenue, west along the entire length of 159th Street, features development that

is almost exclusively commercial, and as a result, 159th Street is one of the most congested thoroughfares in the region. It also remains a major road for far longer than 171st Street, extending into South Holland to the east (north of Thornton), and out towards Lemont (north of New Lenox) to the west. It will take cooperation with the surrounding villages of Oak Forest, Orland Park, and Orland Hills to develop a plan for lowering this congestion and making these commercial developments accessible by ways beyond the automobile. Bus service is virtually non-existent in this area, and it is still the only form of public transportation.

The other major area of redevelopment that would require cooperation would be the area including and surrounding Brookside Glen, the new, southern-most development in the village. The biggest challenge here is the size of the development, while it still remains exclusively residential. Indeed, the nearest grocery store is approximately two miles away, along a highway that lacks any kind of shoulder or sidewalk (St. Francis Road). The small commercial development near the northwest corner of Brookside Glen is not adequate for the number of residential sites present. While there are several complications to accomplishing this, some cooperation with the bordering Mokena (west) and Frankfort Square (south) could lead to identifying sites to mix in commercial zoning and perhaps attract other forms of development that could make living and working within this same vicinity a more viable option. The problem with single-use developments of this size is their proximity to other types of zoning.

While they are attractive for growing population and a tax base, they also lead to additional congestion and isolation, as they are not near the everyday essentials found in the life patterns of the residents.

Conclusions

What is obvious from the continuous development of Tinley Park is that no one solution or redevelopment model applies to the village. Indeed, the nodal structure of Tinley Park's development means that citizens at one end of the village might never have a need to explore the amenities of another end of the village. As such, the designation of "Tinley Park" is a political one, rather than one based on social or economic criteria. Much as Friedmann has described the global cities as ones that are connected without constraints of the nation-state, the communities within Tinley Park might just as easily be more related to the bordering communities than other parts of the village. This makes a master plan or vision for Tinley Park largely irrelevant, as redevelopment needs must instead be addressed on either a community or regional basis. To do otherwise would be counter-productive and would instead be reinforcing the city-marketing model of competition between communities. With the era of rapid development in the region coming to a conclusion, the time for competition should be at an end as well. The region needs collaborative efforts to attract additional investment and engage in intelligent redevelopment based on the needs of the citizens of a given community and the region as a whole.

Image - Shutter

I only slept at home, spending the rest of the time with my fiancée. It was always late when I left for home, bed, really, and the drive never seemed cold at first. But the further south and west I got, once I finally got into Brookside Glen, seemed remote, as though I could not click the heat on the car up high enough.

Parking in the driveway, I couldn't help but be overwhelmed by the stars. This subdivision was far enough out that there weren't as many streetlights, and much of the planned development hadn't been completed yet. What I remember most, on those frigid nights and the pre-dawn mornings of work, was the way the stars just seem to shiver themselves, their blue-white light chilling down on the landscape below, like the world I had entered had stopped.

New Lenox - Joliet**Image - Iris**

I was always in New Lenox by accident, usually waking up from missing my stop on the commuter train. The thing about New Lenox is that it at once seemed both so familiar and yet was a place I didn't know. A few years earlier, after moving to the area from Oregon, I remember how so much of U.S. Highway 30 was undeveloped, seeming to take forever to get from place to place. The drive to the bank where I opened my new account was punctuated only by the occasional intersection, and traffic was not much to speak of. This was late 1997.

On a trip in May 2011 to conduct research for this project, the landscape along U.S. 30 is nearly unrecognizable. Development between the border with Mokena and Frankfort to the east, all the way through to downtown New Lenox is basically all commercial, with many more stoplights and the view of new subdivisions everywhere. This speaks to the remarkable growth New Lenox has undertaken in the last decade, and how the newer form of development has occurred in the shadow of the old industrial-era growth of Joliet. This foreshadows the future vitality of the region and the positives and negatives of this kind of growth.

Orientation & Observation

This region is entirely in Will County, Illinois, with Joliet being the older, more established city and New Lenox a former railroad town that has benefited greatly from its ability to expand and develop with new exurban status. New Lenox is to the east of Joliet, and it is buffered by low-density development and park space. Joliet's development has followed the older industrial-era model of growth, while the development in New Lenox has been newer, taking advantage of regional speculative warehousing and the opportunity to rapidly develop residential and commercial space as new transportation infrastructure was established in the region.

New Lenox, like the surrounding communities of Frankfort and Mokena, was built as a railroad town, serving the needs of the surrounding agricultural community and as a center for local commerce and other municipal functions.

It initially mirrors Mokena very closely in development surrounding its rail station, though rapid expansion of surrounding transportation infrastructure has led to more residential and commercial growth, and the village has responded by developing municipal space that, while impressive, has not taken into account the life patterns of citizens in order to make the landscape more relevant to citizen need.

The core of New Lenox surrounding its train station (the same one that serves Mokena and both Tinley Park stations) consists of a mixture of residential and commercial space, with a nearby high school to add more diversity to citizen life patterns. Like Tinley Park's 80th Avenue station, it is not an architectural triumph, maintaining function in very little form. The surrounding parking lots are not overly large, though they can accommodate significant commuter traffic. The station is also adjacent to U.S. Highway 30, a major thoroughfare that has run through all of the studied regions to this point. Between the train tracks themselves and U.S. 30 is the train station itself, available parking, and a few commercial structures. Commercial structures are on either side of this space as well, backing up to established subdivisions to the north and south. Surrounding land consists of newer residential developments, some park space, and agricultural land. Like other areas, it is easy to spot from above the older neighbourhoods versus the new based on street orientation. Older neighbourhoods feature a grid pattern, one that offers a multitude of entrances and exits to any given point, while the newer neighbourhoods feature

curved roads and frequent cul-de-sacs with limited external access. To the east, forest preserves run from a small neighbourhood east of the train station all the way to (and into) the border with Mokena. To the west is a mixture of forest preserve land, agricultural land, warehouse and commercial space, residential developments, and municipal space. This is newer development, especially the municipal space, as will be discussed after an examination of transportation infrastructure changes.

Interstate 80 is again the main highway transportation through the region, with U.S. 30 also a significant carrier of traffic in the east-west direction. Recently, the state of Illinois completed an extension of Interstate 355 to junction with Interstate 80 just east of New Lenox, creating easier access to the fast-growing western suburbs of Chicago and communities further north. This also provides an alternative route to Interstate 55 and Interstate 57 towards Chicago, though merging onto another route is required as Interstate 355 does not go to Chicago. Its route takes it towards our other research corridor, Interstate 88.

The more significant transportation route, though, occurs west of the junction of Interstates 80 and 355. Cedar Road, a major thoroughfare through New Lenox, junctions with Interstate 80 just north of town, and then also with Interstate 355 shortly thereafter, providing direct access to downtown New Lenox from two major regional thoroughfares. Wolf Road informally marks the eastern end of the development of New Lenox, and Gougar Road marks the

western terminus (though portions of the village are beyond it). U.S. 30, being the major east-west corridor, has significant commercial development. At U.S. 30 and Wolf Road, within the last decade, construction has been completed on a JCPenney department store, a free-standing restaurant, and a two strip malls. Backing the strip malls and restaurants is relatively recent residential development, and backing the JCPenney is lightly developed, leading to more recent residential construction. Further west, adjoining more new residential construction, is a complex sporting several restaurants, a Target, and other strip mall development. A new traffic light was installed here, marking the intersection of U.S. 30 and the new Retail Drive.

To the west of this development is Schoolhouse Road and Lincoln Way Central High School, one of four high schools in the Lincoln Way district. This marks a distinction between the older (relatively) New Lenox and the new development immediately to the east. The exception is the Walmart that was constructed on the north side of U.S. 30 to the west of the school, and a few smaller strip mall developments on the south side of the street.

To the west of the train station is far more interesting development, however. From the station to the intersection between U.S. 30 and Interstate 80 is an entire complex of new commercial development, backed by new residential construction carved out of former agricultural land, and in some cases still surrounded by active crops. At the junction itself, a Kmart and an outbuilding form part of the outfield view for the baseball diamond at

Providence Catholic High School (near the eastern border of Joliet). On the other side of the junction, a 14-screen movie theatre has been constructed in the last decade, as well as several restaurants, a grocery store, and other strip mall style development.

Next to this is a municipal curiosity. New Lenox has constructed a commons space for city administration and other similar needs, such as a library. In an innovative attempt to include commercial interests, several of the lots surrounding the space were allocated to various commercial enterprises, including a large bank branch. During a research trip, to the west of the bank building was an uncompleted, very large structure that was going to house a non-profit amongst other available space. As of May 2011, this was uncompleted and there were no signs of active work. Moving counter-clockwise from the unfinished structure, there is a farm field that has not yet been developed, and then the very impressive New Lenox village hall. While structures of similar function in surrounding communities tend to be modest, functional spaces, New Lenox constructed a massive, and expensive, structure to house present municipal needs and with the anticipation of future growth. The next building around the ring is the New Lenox Public Library; nestled in the center of this collection of structures is the New Lenox Village Commons, containing an amphitheater similar to the one found in Country Club Hills, though one with lawn-only seating, not traditional seating. Additionally, there is a gazebo overlooking an artificial pond, complete with fountains. The

atmosphere is completed with speakers embedded in the landscaping, playing 40's and 50's music streamed from Sirius XM satellite radio. In the time of the author's study of the site, there was exactly one pedestrian out and about, someone from the Village Hall walking over to the bank to take care of some personal financial business.

How to explain this site? By situating it away from the main commercial and residential locations of New Lenox, centered on the train station and Cedar Road, the Village set itself the task of trying to move life patterns to a new location. This is inherently difficult with a site that most citizens will not need to visit on a regular basis, aside from the choice to make use of the library or for very specific banking needs. New Lenox, in fairness, has attracted decent entertainment to the venue, with Cheap Trick, REO Speedwagon, and Starship performing in the summer of 2011. But with limited direct residential access, and with the nearest commerce relying on primarily automobile access, it is difficult to see this municipal space becoming what the Village envisioned when planning the facility. In self-complimentary fashion, a brochure on the development of the Village Hall structure states that, "the Mayor and Village Board had the foresight to plan for the future growth of New Lenox. As the Village lacked a traditional downtown due to the community's early east-west development along the Rock Island Railroad, the Board decided that a 'Village Commons' was needed to center the community and offer residents a place to gather" (Village of New Lenox). This is indeed laudible foresight, and the idea

of providing a space for citizens to gather is an excellent idea. However, rather than allowing this to be an organic out-growth of existing life patterns, the village instead selected this empty site and declared it a new center. It will take constant effort and the development of further residential and commercial, as well as recreational, facilities in order to make this a meaningful center for citizens that coincides with their life patterns.

This is the challenge New Lenox faces: the geography and development history of the village means it has struggled to have a traditional downtown core, but the development patterns since then make the possibility of building a village commons just for the sake of the idea of village cohesion seems doomed to failure. This is even more the case when considering the additional commercial and residential development in which New Lenox has engaged. By making more of the village more desirable to access via automobile rather than by foot or alternative forms of transportation, they have made it even easier to bypass this new common space altogether. Unless New Lenox can be honest with itself about the life patterns of its citizens and what amenities are likely to be regularly used at a variety of hours by a variety of people (as in Jacobs), then it will be difficult to see how the vision of a unified community can manifest itself spatially, either in the freshly built Commons or in other parts of the Village.

The rapid development of New Lenox from a railroad community to major Chicago city-region suburb/exurb stands in stark contrast to its neighbour to the

east. Joliet has a history of a relatively prosperous minor city, based on industry and the ability to transport goods from the region to other regions efficiently. Yet, the development of the information-era economy and the rise of the global city-region of Chicago means that both share a geographic space that can function effectively in future development to be economically beneficial to both communities.

Joliet's position is nearly ideal for an industrial city, with easy access to multiple rail lines and river navigation. Joliet still has significant industrial activity, including a BP oil refinery in the area, though the economy in the city would hardly be called vibrant. As a contrast, it is instructive to look at both the downtown core of Joliet and the efforts at redevelopment, as well as the newer development on the periphery, space that borders more prosperous communities based on other economies.

Joliet is positioned at the nexus of two rail lines, which serve Union Pacific and Burlington Northern/Santa FE for freight, Metra commuter rail service, and Amtrak. The Des Plaines River and the I&M Canal both flow through Joliet, and Interstates 80 and 55 intersect on the edge of the city. It is telling how the city developed when you consider the downtown area of Joliet is where the rail lines cross rather than where the Interstate highways cross. Of course, the city pre-dates the Interstate system, but the importance of rail and river traffic cannot be overlooked.

The downtown area of Joliet is dominated by older structures, most of the mixed-use commercial/residential style. Many of the commercial spaces are vacant and more than a handful of the buildings are for sale. Union Station, positioned at the intersection of the train lines, was built in 1912 and added to the National Register of Historic Places in 1978 (jolietunionstation.com). While it serves a healthy number of commuter passengers on a daily basis as well as Amtrak passengers, most of the building seems to be disused. This is not to say it has been abandoned, but it has been changing to meet its necessary functions. The bar/restaurant that was built on the main floor is vacant, and the building itself shows many signs of the decline in passenger rail transportation of the last half century. The primacy of the automobile is obvious.

It becomes even more obvious outside, as the city offers free parking downtown in a bid to attract visitors. The Rialto Square Theater is a significant attraction, originally built with the wealth of the 1920's to offer a Vaudeville experience (rialtosquare.com). It is today a performance space, attracting notable talent and also acting as a facility that can be rented for special occasions. This is beneficial in attracting a diverse collection of citizens to the downtown area, though it is not the type of attraction that will garner a regular, repeat crowd. It is a piece of the puzzle for a downtown like Joliet's, but it is not a complete solution.

Silver Cross Field is another main attraction to downtown Joliet, built to host the minor league Joliet Jackhammers. Both the Northern League, of which

the Jackhammers were a member, and the Jackhammers themselves folded at the conclusion of the 2010 season, and the Joliet Slammers took their place, in the rookie ball Frontier League. Northern Illinois has a number of teams in this league, including the Windy City Thunderbolts (Crestwood), the Rockford RiverHawks, the Normal CornBelters, and the River City Rascals. Former fellow Northern League rivals the Gary SouthShore RailCats opted to join the American Association of Independent Professional Baseball, and the Schaumburg Flyers, a major regional rival, folded as the Jackhammers did. Silver Cross Field hosts 49 home games per year for the Slammers, providing another semi-regular piece of the puzzle for downtown Joliet, but like the Rialto Square Theater, semi-regular events are not enough to establish downtown as a regular part of citizen life patterns.

Joliet, as the county seat of Will County, also has a major courthouse and municipal administrative structures. These include offices for unemployment and other county and state-level functions. Here, too, aside from employees, citizens will rarely have regular need for these facilities. Combined with the Theater and Silver Cross Field, however, downtown Joliet is beginning to have overlapping causes for use, one of the hallmarks of the good neighbourhood from Jacobs. What is lacking from this, however, is the everyday employment and amenities needed to make downtown Joliet a regular attraction.

The periphery of Joliet shows signs of more information-era development, as speculative warehouse developments, subdivisions, and large-scale

attractions have been carved into the agricultural periphery of Joliet.

Speculative warehousing, as explained by Berger, is placed with the assumption that it will come into use in the future as a region's needs dictate. For the Chicago city-region, the move from rail to multi-modal and truck distribution of goods serves this area well, with easy access to Interstates making major warehouse development lucrative. While such places do not offer a great deal as far as interaction and developing community, they do bring in much-needed investment provide local employment. The land surrounding Joliet's core, especially to the west, is ideal for this kind of development as need dictates.

One look at an overhead view of Joliet gives a clear distinction of the age of the subdivisions. Older neighbourhoods replicate the larger-scale grid pattern that is emblematic of traditional cities, while the newer residential developments sport the swooping and curving roads that is favoured by contemporary developments. Core neighbourhoods around the downtown area are gridded, while newer developments, primarily to the south of Interstate 80, as well as west and east of downtown, show a less formal structure. These developments indicate a willingness for Joliet to engage in the kind of growth that other, smaller communities in the region have undertaken to increase revenues. Unlike Chicago, Joliet has this opportunity thanks to not forming a continuous city-region around it with suburbs. By the same token, Joliet has essentially become a suburb of Chicago as opposed to the independent industrial-era city it

once was; this is analogous, as we shall see in Chapter 4, to the development pattern that Aurora underwent about a decade earlier.

Joliet has also added amenities such as the Chicagoland Speedway, an auto-racing venue that is well south of the city, as well as Challenge Park, an outdoor multi-sport complex. Chicagoland Speedway is a paved oval circuit that hosts Indycar and NASCAR events on a yearly basis; like downtown Joliet, it attracts irregular visitors rather than regular, especially when considering its footprint in agricultural land south of the city proper. Such a venue would not be possible within the core of the city without severely disrupting existing neighbourhoods, so while the location makes sense from a development standpoint, it does little to have a consistent effect on overall economic development. Challenge Park hosts a number of “extreme” sports, including mountain biking, paintball, skateboarding, BMX biking, and more. Unlike other mountain bike facilities in the region, riders have to pay to use the facility. Conversely, it is maintained by employees rather than volunteers, and has proven quite popular on local mountain bike and cyclocross race calendars. The other activities, too, attract a regular audience. While this venue is also far enough removed from the city core to not have an appreciably large economic effect, it does provide a suggestion for a new corridor of development that creates additional economic opportunities. As a city in transition, this is a likely path for Joliet.

Analysis – Challenges

Both New Lenox and Joliet face challenges in their historic development. New Lenox is a former railroad community serving the surrounding agricultural land, developing in a linear fashion that mirrored the path of the railroad. Joliet is centered on rail and water routes, with the benefit of two nearby Interstates to provide an outlet for future development. Both are attempting to redefine themselves given their new economic positions and the possibility of future growth and claiming an important part of the wealth generated by the Chicago city-region.

New Lenox should seek ways to benefit from its east-west orientation – mirroring the major transportation routes through the area – rather than trying to break free of them in order to build a simulation of a “traditional” village center. The residential and commercial development along U.S. 30 has resulted in sustained, even occasionally heavy traffic for the two-lane highway, reinforcing rather than diminishing the lateral nature of the village. It would be more in the interests of the citizens of New Lenox for the village to focus also on another great community asset, the Old Plank Road Trail, a disused railroad bed that has been paved and turned into a multi-use path south of U.S. 30. With the car-centric growth that the last decade has wrought, more development favouring alternative forms of transportation will do much to relieve congestion and build that missing sense of community New Lenox is trying to capture. Such suggestions for remediation will be discussed in Chapter 5.

Joliet faces development choices from a different source but with some strong similarities to New Lenox. Faced with a downtown that is no longer centered on the economic vibrancy of the city, Joliet has attempted to find new reasons to visit this admittedly beautiful area of architecture and history. Still, unless Joliet can find a way to lure major employment, and then the supporting service businesses, to its downtown, then the project will result in little beyond a tourist destination. Joliet's newer growth, on its periphery, has been successful, and the result requires a radical rethink of how land should be developed and redeveloped in Joliet going forward, especially if the goal is to both foster a sense of community that fits in with the life patterns of citizens and preserve the rich history downtown Joliet has to offer.

Conclusions

The story of the New Lenox-Joliet region is one of now and then, and how two communities are struggling to be something different than they once were, and as a result, are also fighting what they already are and still do well for their citizens. Like Tinley Park and surrounding communities, new development has brought renewed focus to both communities. New Lenox has grown astonishingly quickly, though if it wished to be a different shape than it has been historically, that should have been accounted for in development plans before this explosive growth. Joliet's problems are a microcosm of larger industrial cities throughout the Midwest: development on the edges of the city are creating more economic activity than the old core, but the core remains and

must be maintained. Joliet's challenge, then, is one of intelligent redevelopment, making good use of land both within and without.

This region also has elements of both of its surrounding regions, just as the Bremen region of Tinley Park showed elements of both the older growth of Thornton and the newer sprawl of New Lenox-Joliet. This region, while developed, also has a more autonomous feel than closer-in suburbs would have, with the first sustained appearance of undeveloped land forming a buffer with the city-region. The Morris-Ottawa-Utica region takes this a step further, existing on the periphery of the city-region, a kind of boundary object that benefits from the economic activity of the Chicago city-region, but still maintains itself as a separate entity from the nearest exurban communities of the city-region itself. Upon leaving Joliet, and heading west on Interstate 80, a driver is also leaving Will County behind in short order, moving beyond the border counties to Chicago and into the area more readily considered a part of north-central Illinois. The issue is not as much whether it falls demographically within the city-region, but in what way it is economically attached, and perhaps also socio-culturally connected to Chicago as well (Friedmann 3).

Image – Shutter

A warm evening in Joliet with baseball gives a hint of what Joliet could have been had it been the major city in the region rather than Chicago. Behind both foul lines, the train lines have all but stopped carrying passenger traffic for

the evening, and the freight trains are rumbling by with regularity. Their relentless roll blots out almost all of the other ballpark noises.

Most games end just as the light of a long summer day fades to black. It would be a short walk back to the car; with nothing else going on in town for the evening, parking a block from the stadium isn't a challenge, even with a few thousand fans attending a game. The walk is quiet, with little other traffic, even at the train station, and we get into our car with little difficulty. Pulling away, it's hard not to notice that there's nothing open and nothing else to do in what should be a vibrant downtown.

A few gas stations and fast food restaurants are open down near the Interstate 80 interchange, but we skip these, merging on the ramp, heading the ten or so miles east to home. There are things we can do in that area instead.

Morris – Ottawa – Utica

Image - Iris

Morris was the town with the football team. At least, that's how I remember them. They were very good, and the high school my sister attended for her first year was very, very good as well. We went to the state championship game held in Bloomington, Illinois, and Morris seemed like a dangerous, dominating place, though one I had never heard of. It wasn't until a few years later, after Richards High School defeated Morris rather emphatically, that I went through this old railroad town, a bit of civilization coming out of the

surrounding agriculture. It is not nearly the imposing place the idea of a football game somehow made it out to be.

The other towns along this stretch – Ottawa, LaSalle, Utica – all became places along an Interstate for me, nowhere I had really gone, but places I had heard of nonetheless. They became like landmarks for migrating birds, marking time until I got from one place to another.

Orientation & Observation

Morris, Illinois is approximately 20 miles west of Joliet, beyond what is generally considered to be the Chicago city-region. Yet, with its proximity to the area making it accessible to the Chicago media market, and with a major transportation route leading to the city-region forming a major artery, Morris is very much attached to the Chicago city-region, and could still yet become a more central part of it.

Beyond Morris, Ottawa, Illinois has many of the amenities a decent-sized city might have, and that has assisted its development within the region. Ottawa has both an airport and direct access to the Illinois River. In many ways it is like a smaller version of Joliet, with railroad, highway, and river access to areas well beyond the immediate geographic area.

The LaSalle-Utica area is further yet west, just east of Interstate 39. It too is along the Illinois River, and it features some parkland that makes it distinct, and yet has several echoes of an industrial past, including an interesting mirror to the Thornton region much further to the east.

Morris, Illinois, is off exit 112 of Interstate 80, very different from exit 126, where Interstate 55 marks the western terminus of the City of Joliet. Interstate 80 is significantly further south at this point than it is in the other study areas. This compresses the distance between the Interstate and the river, making for a sensible city core. In fact, development exists almost exclusively on the north side of the Illinois River, with sparse (and, to judge by the appearance of the street pattern as discussed in previous sections, recent) development on the south side. It is also obvious that the city developed along the river and railroad before the Interstate. Between the river and the railroad tracks, development exists along the previously discussed grid pattern, with a multitude of paths into and out of such neighbourhoods. Further north, and perhaps reflecting the fact that U.S. Highway 6 runs through the area (which also runs through Joliet, north of New Lenox, and along the boundary between Orland and Tinley Park), development is a bit more scattered, with more strip mall-style development and subdivisions with wandering streets. The section between U.S. Highway 6 and the railroad tracks forms a kind of in-between section, with park space, a medical center, and other such municipal features that form a downtown concept.

North of this section is development that is more familiar to any suburban resident: wandering subdivisions, ample chain stores, and access to easy automobile transportation routes. Directly off of the Interstate, many familiar commercial locations are within sight. On the south side of the Interstate, these

include Wendy's, Culver's, Burger King, Dunkin' Donuts, Little Caesars, Pizza Hut, GameStop, AT&T, Radio Shack, Rent-a-Center, and Wal-Mart. While perhaps not quite the extensive list that Tinley Park or New Lenox might boast, for a community of fewer than 15,000 residents, there is healthy economic activity. North of the Interstate, a couple of motels, a truck stop, and a couple of restaurants blend in with a subdivision or two and some warehouse space; this all seems to emphasize the centrality of the Interstate to this part of town.

The layout of the town is unique, though, in that the original development was generally east-west along the river and railroad, and yet it has stretched in recent years to a more north-south orientation in order to meet with the opportunities provided by the Interstate highway. The added population, it should be noted, is less likely to be citizens who work in Chicago itself, as they may in Thornton or Tinley Park or New Lenox. Rather, with a commute that would total approximately two hours in each direction, it is more likely that Morris is gaining population from smaller communities within the area and is developing into a node in and of itself. As the major city (and county seat) of Grundy County, it is not surprising that much smaller agricultural communities, as they lose population and standing as smaller farms make way for larger ones, Morris stands to gain significant population.

The outlying areas feature significant park and river land, as well as a great deal of agricultural land. There are sparse settlements as well, though much development that could occur in the future has not yet occurred. This is

significant, as Morris, a boundary object between member of a city-region and independent nodal city, has opportunities for further development in the future, and as we will see in Chapter 5, there are chances to create innovative development that can take advantage of the economic opportunities of being a part of the Chicago city-region, while still remaining somewhat independent and filtering in other economic and social activity from other surrounding areas. In addition, the distinct ecological features of the area stand a greater chance of being preserved with an approach to development that balances the imperatives effectively.

Directly west of Morris, by approximately 30 miles, is Ottawa, Illinois, another community that features river, rail, and Interstate traffic that speaks of a rich history of trade and transportation. The Fox River and Illinois River come together in downtown Ottawa, though unlike Morris, development is extensive (and seemingly of similar age) on both sides of the river. Unlike Morris, though, where there are three road river crossings, there is only one for Ottawa, creating the potential for congestion if significant growth occurs. Along the Interstate, however, Ottawa seems to be taking advantage of its position on the (very) edge of the Chicago city-region to profit from speculative warehousing and distribution opportunities.

The distinction between Morris and Ottawa that is most readily apparent is the pattern of development: Ottawa has a much more extensive grid network, with limited newer subdivisions displaying their trademark curved road routes.

This means that Ottawa reached its current form earlier than Morris, and provides some advantages for community cohesion and orderly development in the future. The main spine of the community is Highway 23, which is the interchange with Interstate 80, but also is the same road that crosses the Illinois River, thus bisecting Ottawa. The older core of the community is on the north side of the river along this road, with restaurants, theatres, and other commercial attractions in the area. Additionally, Ottawa Township High School is in the vicinity (though across the Fox River from downtown), providing another centralizing force for the community. The areas surrounding both the high school and the commercial core display a conventional grid system of residential housing, making for an orderly pattern of development and multiple routes around town to ensure limited traffic congestion.

North of this area is an area that shows two signs of newer development: curved-road residential development and strip-mall style commercial development. At the intersection with the now familiar U.S. Highway 6, familiar commercial retailer names are in abundance: McDonald's, Wendy's, Pizza Hut, Burger King, Autozone, Walgreens, and numerous smaller chains and local retailers. There is also an elementary school on the northwest corner of this intersection, and north of the immediate commercial development along Highway 6, a mixture of old and new residential development prevails. The further north along Highway 23 one goes, the newer the residential developments become.

Along Interstate 80, even newer big box style development prevails, as well as the speculative warehousing that is a competitive advantage for a location such as Ottawa's. Commercial developments here include a Wal-Mart, a Kroger, a Value City, an Aldi, as well as smaller chain retail such as Dunkin' Donuts, KFC, Culver's, and various restaurants and other commercial outlets. Between this area and the intersection with U.S. Highway 6, land is intermittently developed, with residential developments that have limited highway access, depending on spine roads that serve the majority of the development. Duany et al perform thorough work on why this style of development is not terribly efficient, especially for community formation, and the land footprint taken up here indicates this inefficiency. Combined with being removed from the city center, it is easy to see why Duany or Jacobs or many other development theorists would have concern about creating a cohesive community. North of the Interstate, there is big box retail development, but there is also a collection of speculative warehousing sites, creating distribution opportunities for the entire Chicago city-region. Tyson Chicken, Harley Davidson, and Seattle Sutton's all have distribution space along the Interstate. This is interesting development, as it stands in stark contrast to the city center and means that Highway 23 acts as a kind of developmental time capsule. It also reinforces the boundary object nature of Ottawa, between the older development of a distinct community and the newer development emblematic of serving the surrounding city-region.

Further west of Ottawa, at the western terminus of this study region, is LaSalle, Illinois. South of LaSalle is the community of Utica, which tells some additional stories of the area, indicating the primacy of forms of transportation aside from the Interstate prior to the mid-twentieth century. Here we see an area along Interstate 80 that shows few, if any, signs of being a part of the Chicago city-region. Rather, it shows more signs of the kind of infrastructure that more supports transportation rather than distribution as seen further east.

LaSalle is a smallish community, boasting about 10,000 residents, at the intersection of Interstates 80 and 39. According to the local government's website, it is a part of the Ottawa-Streator Micropolitan Statistical Area (lasalle-il.gov). This echoes Gertner's reporting on the new statistical concept of the micropolis, the place between the dense metropolitan area and the rural. Streator, Illinois is due south of Ottawa, not along the Interstate, and thus not a part of this study region. The makings are there between these three communities to form a minor city-region as time progresses.

What is most striking about the interchange prior to LaSalle is that the speculative warehousing and more suburban developments further east appear to be absent. Instead, the interchange features facilities for Pioneer Seed and Love's Travel Center, highlighting the importance of both transportation (as a stopover facility) and agriculture to this area. LaSalle itself is south and west of the 39-80 interchange, and there has been minimal development approaching either Interstate. The town itself appears to be centered along Highway 251, a

4-lane highway that intersects Interstate 80 west of I-39. The growth pattern is almost completely a grid, indicating that most growth has been older, with little development on the outskirts that shows signs of being of a newer nature. The northern end of 251, near Interstate 80, has a mall, a movie theatre, and other big box and strip mall type development. What is lacking, though, is the tangible sense of being a part of the Chicago city-region, such as speculative warehousing or some similar support infrastructure. Given that LaSalle is about as close to Chicago as it is to Iowa, it seems the Micropolitan Statistical Area mentioned above accurately indicates the self-sustaining nature of this part of the corridor. LaSalle's role appears to be to support transportation along the corridor and the needs of the surrounding communities, in construction and agriculture.

South of the interchange with the travel plaza and seed facility is Utica, Illinois and several nature preserves. Utica is an older river and railroad town, with the Illinois River, the I&M Canal (an historic, constructed water route), and a main railroad line providing industrial-era means of transportation. The town itself is formally North Utica, in reference to the moving of the original town from its place along the banks of the Illinois River to its current location along the I&M Canal in the 1830s (utica-il.com). Both the convenience of the Canal and the inconvenience of the flooding the River experienced periodically were cited as reasons (*ibid*). Utica's main national notoriety in recent years was a tornado in 2004. Nine fatalities and the destruction of most of the downtown

business district were the result of an F3 tornado that swept through (Keller).

The downtown district has been rebuilt, though with approximately a thousand residents, this was small-scale commercial construction, especially in comparison to the surrounding preserve and extraction industries.

Immediately south of the Illinois River along Highway 178, the one that passes through North Utica, is Starved Rock State Park, a major collection of preserves stretching a fair distance both west and east of 178. On my research visit to this site, the Illinois River had indeed flooded, blocking access to the Park's visitors center, pushing visitors to the Park to the main Lodge. The Lodge hosts a restaurant, a café, banquet facilities, overnight accommodations, a lounge, and cabins in the surrounding woods. It is situated on a bluff, overlooking the Illinois River ("Imagine"). The view from this perch is telling, as the view of the Illinois River from this perspective shows an impressive dam structure, power lines, and a great deal of agriculture as well as the more distant Interstate. This is a vantage point not only for a preserve, but also one of the economics of the region. From this perspective, we must also consider Cronon's take on the preserve, and contrast how the preserve is used here as opposed to the forest preserve or other similar spaces to the east. Here the preserve is not a self-service space, but is setup to be an attraction. This economic activity, combined with the lower population density of the region, provides an opportunity to attract commerce from out of the region, but not over-use the preserve itself thanks to more limited access for larger city-regions.

This means that this micropolitan region has the tourism aspect of the global city-region established to a certain degree, though in place of a financial industry, agriculture and extraction are present and active.

When driving north, back towards the Interstate along and through (North) Utica, a driver will notice on the left side of the highway a quarry, not unlike the one at the eastern terminus of this study region in Thornton. Here, however, the evidence of the quarry is much more subtle, as the surrounding development is sparse at most. As much as anything, though, with easy access to the Interstate, it reiterates the industrial nature of both the region and the corridor at large, both in the sense of economic activity and the era of primary development.

Analysis - Challenges

This region of the study is as spatially large as all of the other regions combined, yet the population here is easily the least of the bunch. The biggest challenge present here is in identifying what the desired direction of growth for the region is, assuming that there is expected growth. These communities are not linked by county, by district (though LaSalle, Utica, and Ottawa share one), nor in any other significant geographic way beyond their respective connections to Interstate 80. Instead, these communities are instructive as they have decreasing connectivity to the Chicago city-region the further west we go, and yet their nature is in many ways still connected to their proximity.

Morris faces the most immediate development challenges, as it is close enough to the New Lenox-Joliet portion of Interstate 80 to potentially have some intrepid commuters. It is thus at risk for low-density development as has been witnessed in regions further east. Morris will have to decide as a community if they wish to take advantage of their city-region proximity and encourage further commercial and residential development, or if they would prefer to maintain their present economic base and expand in conjunction with surrounding communities.

Ottawa seems favourably positioned as a regional center, with medical and education facilities to match. There is less chance of losing infrastructure or population to the Chicago city-region, at least directly. Individuals or families could conceivably leave in order to seek new opportunities, but it is unlikely Ottawa would lose population to those maintaining the same employment. Conversely, it is unlikely individuals from within the Chicago city-region would move there unless Ottawa attracts new economic opportunities. That becomes the question for Ottawa: what form could these new opportunities take? With the Ottawa-Streator district having the potential for forming a city-region, it would be in Ottawa's interests to promote the district and the opportunities available therein for expansion. Given the limited resources, compared to the Chicago city-region, available to Ottawa, a cooperative model with LaSalle and Streator would seem to be the most logical course. How to coordinate this and for what opportunities is the biggest challenge Ottawa faces.

LaSalle-Utica faces few challenges from a development perspective unless it desires to become something different from what it currently is. The agricultural and extraction industries are stable in the area, and attractions such as Starved Rock State Park attract commerce from outside the immediate area, providing an additional boost to commercial services. Challenges could present themselves in the form of the limited population, but given the demand for agricultural services and the need for a node to service those needs, it is unlikely that this region will be anything other than stable save for dramatic economic disruption.

Conclusions

The corridor from Morris to LaSalle, Illinois along Interstate 80 provides the opportunity to see how proximity to a major city-region can have an influence on development patterns. This corridor also demonstrates how areas furthest away from such city-regions experience slower growth and additional development. This means that these areas, while perhaps not as economically vibrant, have a tremendous opportunity to develop and redevelop intelligently, balancing the imperatives to maintain a cohesive community atmosphere.

Image – Shutter

The café at Starved Rock is just off of the lobby, the two attendants behind the counter at attention in case I am about to check into a room. Beyond the koi pond and taxidermied bear, the café has a decent number of sandwich options, ice cream, and more souvenirs than I've seen in one place in

some time. There are three employees and four other customers in the shop. I order a sandwich and sit, composing my notes from the day.

Other customers browse the occasional souvenir: magnets, mugs, postcards, ornaments, hundreds of others. Each is probably produced alongside similar products for hundreds and hundreds of similar locations. An older couple gets up and leaves, set to hit the road for home. More are just coming in, checking in and grabbing a snack rather than a full meal at the restaurant - it is in between meal service, late in the morning. My sandwich arrives, everyone else, employees included, watching reruns on a small television practically mounted to the tall ceiling. I finish, slipping out, past the bear, the koi, the attendants, and get back in my car, ready to drive north, past the flooded visitors center parking lot, past the canopy of trees covering the barely two-lane road, over the Illinois River, along Interstate 39, to all of the other regions there are further north.

Conclusions

The difficulty with considering Interstate 80 as a corridor is the diversity in the imperatives contained along the 80-plus miles of the study area. From the industrial-turned-suburbia sections furthest east to the agricultural nodes to the west, Interstate 80 has not developed as a cohesive mono-economic entity. This is both a strength, in that there is great diversity socially, economically, politically, and ecologically, but also a weakness in future development patterns

in that many of these areas will not be working in conjunction for common pursuits.

The Thornton region has transformed due to economic changes both within the community and in the Chicago city-region at large. What was once an extraction-based economic area has been consumed by the larger city-region. The Bremen region has grown from railroad community to prototypical suburban development, with extensive car-based residential and commercial growth. The New Lenox-Joliet region is more on the periphery of the Chicago city-region, with existing major infrastructure in Joliet having potential for redevelopment and becoming a regional node for residential, commercial, and other economic activity. The Morris-Ottawa-Utica region has differing needs, and highlights how the periphery of a city-region is not easily measured through political boundaries but by the steady decrease in development that mirrors that within a city-region, as well as visible services changing in nature with distance from the city center.

What is most instructive about this examination of Interstate 80 is the diversity, especially in contrast with Interstate 88 as examined in Chapter 4. The question of whether or not a corridor-wide plan for future development would be of any use must be addressed in the future. Such coordination of resources and efforts is critical so that the communities along the corridor can develop in the ways that best serve their citizens while balancing the necessary imperatives.

Chapter Four – Interstate 88

"You can tell how the traffic and stoplights are in Naperville by how angry the drivers are. How many horns you hear. How much they're all swearing." - Batavia resident

In the book *The Endless City*, Edward Soja and Miguel Kanai point out that "[o]ver the past 30 years, the world has been experiencing an unusually expansive and reconfigured form of urbanization that has defined a distinctively global urban age – one in which we can speak of both the urbanization of the entire globe and the globalization of urbanism as a way of life" (54). This rapid change is epitomized in the development of the Interstate 88 corridor west of Chicago, where not only has the major infrastructure development along the corridor happened in the last three decades, but also the formation of the highway itself as an Interstate. What is interesting is that there are actually two Interstate 88's, with the other one in New York. Both are contained exclusively within one state, acting as intrastate Interstate highways. For the purposes of this project, we will, of course, focus on Interstate 88 West, running from just east of Oak Brook, Illinois at the village of Hillside, west to Moline, Illinois, part of the Quad Cities at the Illinois-Iowa border (illinoistollway.com). As in Chapter 3, this study will use Interstate 39, approximately the half-way point of the highway, as a western terminus for the study, beginning with Oak Brook as an

eastern point, as Oak Brook is the first accessible exit at the eastern end of the highway.

Interstate 88 has a unique history, in that it is only an Interstate because of speed limit regulations. Built to those standards, the area wanted to take advantage of the 65mph speed limits other area Interstates had available. Granted this status, Interstate 88 became a corridor cutting through both extensive farmland and some of the wealthiest counties in the State of Illinois. With a median household income of over \$76,000 (U.S. Census Bureau), DuPage County is not a poor community, yet its development over time is in evidence by the eras of growth that can be observed. From Oak Brook to the east to Aurora in the west (for the metropolitan area) and DeKalb at the edge of the research area, Interstate 88 takes in a similar population density pattern to Interstate 80, but is socio-economically much different. A great deal of this can be attributed to economic activity past and present, something that is in evidence by the relative lack of major industrial and extraction activity in this corridor.

This chapter will divide Interstate 88 from I-294 to I-39 into four study areas: Oak Brook-Downers Grove, Naperville-Lisle, Aurora-Batavia, and DeKalb. The last of these four will also integrate the large agricultural stretches west of Aurora, including the interesting access points along this large stretch of highway. As in Chapter 3, each study area has been explored experientially and through observation of life patterns; this is augmented by relevant statistics and

research where appropriate. An expansion on the research aspects will be present in Chapter 5, where the recommendations and remediation suggestions will take into account the past development, present, and especially the needs for communities in future development.

Oak Brook – Downers Grove

Image – Iris

Oak Brook was always a destination for shopping, a place for acquisition and a place of massive traffic. When going to REI, it was fairly common to wait four or five stoplights to make the left-hand turn from Route 83 onto 22nd Street. There was simply nothing relaxing about it.

The distinction that was always so strange about Oak Brook was that I never knew anyone who lived there. I'm still not convinced anyone actually does. Oak Brook has a similar philosophy to Orland Hills, where commercial comes above all else, but here it has been done so differently than its distant neighbour to the south. Oak Brook has set itself up to not compete with surrounding communities for big box stores and strip malls, but for destination shopping and corporate headquarters. This distinction sets the tone for the entire Interstate 88 corridor.

Orientation & Observation

The furthest east portion of this study area is comprised of a continually developed corridor roughly from Oak Brook to Downers Grove. This is an arbitrary delineation, seeing as these suburbs form a continuous city-region.

However, the retail centers involved and development along common major roads makes this a useful corridor for study.

It is immediately clear that Oak Brook (and Oak Brook Terrace, which have a relationship similar to Orland Park and Orland Hills from the Interstate 80 study) is significantly different from any section of Interstate 80^{*}. Here there is commerce on a scale not seen further south. Along the main axes of Oak Brook, 22nd Street and Route 83, there is not only a collection of large and frequently upscale commercial activity, but also an impressive array of company headquarters, regional headquarters, and other administrative offices. Other major roads through this region include Roosevelt Road (north of 22nd Street and Interstate 88), Butterfield Road (what 22nd Street becomes further west, after merging with Illinois 56), and York Road, east of Route 83, running north-south. The pattern of the community, in a generic sense, is one where newer development is south of Interstate 88 and older development lies north. This is evident by the pattern of subdivision development as discussed in the previous chapter: newer development tends towards curved roads and limited major road access, compared to an older development style that forms a grid wherever possible.

The intersection of 22nd Street and Route 83 features the Oakbrook Center shopping center on the northeast corner, limited retail space backed by

^{*} This is especially true for me, as I was nearly broad-sided by a Rolls Royce running a red light immediately upon exiting the Interstate.

newer-style residential development on the northwest corner, and some commercial headquarters and retail automobile facilities on the southeast and southwest corners respectively, backed by Interstate 88 to their south. The northeast corner is perhaps the most prominent, with Oakbrook Center creating large amounts of vehicle traffic with a semi-standard shopping mall arrangement. With anchor stores including Nordstrom, Macy's, Lord & Taylor, Neiman Marcus, and Sears, as well as most of the common shopping mall stores, Oakbrook Center is a large and successful-appearing shopping mall. What is slightly unique about Oakbrook Center is that it attempts to have some biophilic, marketplace-type attributes without being able to connect them to the surrounding community or even the parking and transportation situation with respect to shopping at the facility. Many of the stores open onto common open spaces, with brick walkways, fountains, topiaries, etc. As will be discussed in the analysis portion, this may be an effective first step, though there is much more that should be done to the site to bring it inline with the biophilic opportunities here.

The northwest corner of the intersection has limited retail development, including an REI outdoor store, a couple of upscale restaurants, two notably tall office buildings, a clothing store, a softball field, and then residential development behind it. The starkest contrast is between this series of commercial structures and the incredible volume of space taken up by concrete across the street at the shopping mall. The parking is largely hidden on the

northwest corner, with spaces largely allocated to behind the buildings, with surrounding tree coverage. The total footprint of uninterrupted asphalt is quite minimal, and serves as a positive model for future development or redevelopment.

The southeast corner houses a double-towered office complex that includes Rasmussen College amongst its tenants, with typical parking and landscaping as is seen in many commercial parks. The space is confined on all sides, however, so the rolling green hills and inaccessible fountains seen in many commercial parks are not present. 22nd Street is to the north, Route 83 to the west, and Interstate 88 borders to the south. East of this are four more office tower complexes, architecturally different but functionally similar to the construction on the corner of the intersection. Interstate 88 curves north, going over 22nd Street shortly east of here.

The southwest corner is dominated by one leaf of the Interstate interchange. West of this, following the corridor between 22nd Street to the north and Interstate 88 to the south, is a series of commercial facilities, extending west until 22nd Street becomes Butterfield Road when merging with Illinois 56.

Of note throughout this area is the conjoining of relatively high-density commercial development with both old and new-style residential developments, recreation (there are two golf courses within two miles of this intersection), and other facilities that could see diverse use. What is notable about this area is the

observed higher income levels, based on types of commercial and recreation establishments, as well as by the automobiles observed in these locations. Long-term economic imperatives to community development may not be immediately obvious to citizens, but the long-term health of a successful community should be an obvious selling point.

Following Route 83 south, development becomes distinctly residential, though showing the curved roads and limited access of newer-style development. Some limited retail commercial development exists along the west side of the highway, though not on the scale seen in Oakbrook Center. By the time Route 83 passes through Westmont and Hinsdale, residential development returns to a more familiar grid pattern, with limited commercial development, confined to the corridor immediately adjoining the highway. South of Route 83's intersection with Interstate 55, almost everything is forest preserve property, forming a buffer between the south and west suburbs.

North along Route 83 changes significantly north of the intersection with Roosevelt Road, a major road throughout the western suburbs of Chicago. In between, slightly south of Roosevelt, is Butterfield Road; both of these intersections feature clover-leaf access points, as Route 83 runs generally at a lower elevation, creating interchanges at most intersection points aside from 22nd Street. North of Roosevelt Road, passing through Willowbrook, Elmhurst, and Villa Park, the landscape quickly returns to the familiar old-style growth of

gridded residential development with separate commercial spaces. This pattern continues until the interchange with Interstate 290 well to the north.

22nd Street, by contrast, is much less of a continuing thoroughfare. To the east, it continues as 22nd Street or Cermak Road into Chicago, passing through Westchester and Berwyn along the way; by the time it reaches the latter, the solid city grid-style development has taken hold, with the curved newer-style residential development of suburbs more distant from the city center remaining beyond the forest preserves. This barrier is reminiscent of the similar divisions formed along Interstate 80 between the Thornton and Bremen study regions. For the purposes of this study, we will cut off 22nd Street at Interstate 294, just east of where Interstate 88 begins. The main intersection between I-294 and I-88 along 22nd Street is York Road, which we will examine more in-depth following 22nd Street. This stretch is a combination of corporate headquarters, retail and financial/service commercial, and some spaces of limited-access recreation (golf courses, etc.). On the west side of the Interstate 88 overpass, the McDonald's plaza is a major facility, serving as the corporate headquarters and featuring an eat-in restaurant and, as if to underscore the need for access to multiple transportation points, a heliport.

West of the previously discussed section, at the intersection with Butterfield Road, the area becomes one of lower density commercial, though still with some high-rise office towers present. Further west becomes much higher density commercial, with massive parking lot structures and fewer office

towers dotting the landscape by the time we cross the border into Downers Grove.

York Road is a major thoroughfare through the area, though in this portion it largely serves residential developments. The access to these residential developments is limited, however, as the newer-style development patterns of these residential communities allows few access points. The nature of York Road changes to the south, when it becomes much less important of a thoroughfare south of Ogden Avenue, and when it winds through Elmhurst to the north.

The other major road to consider when studying Oak Brook is Roosevelt Road. Due to its proximity to three major interstates (88, 294, and 290), Roosevelt Road is quite heavily used. It also serves a variety of communities and types of development, so its purpose changes depending on what stretch is in use. Towards the eastern end of the study area, Roosevelt travels through a cemetery, which acts as a buffer between old and new-style residential developments. Traveling west, to the north, the southern fringes of Elmhurst, with something closer to a grid development, are separated from the forest preserves and curved-road development of Oak Brook Terrace. Near the intersection with Route 83, there is a collection of smaller commercial developments, higher density (condominium) residential development, and commercial attractions such as the Drury Lane Oakbrook Terrace theatre. The intersection with Route 83 is not a conventional one; rather, as mentioned

earlier, the intersection is an underpass/overpass situation, with a cloverleaf interchange that takes up significant space. Between that and the cemetery to the southwest of the intersection, the adjoining residential development is significantly separated from the commercial activity to the east. The commercial activity to the west, however, with neighbouring Villa Park, is almost seamlessly integrated.

To the west along Interstate 88 from Oak Brook, and acting as a continuation of the same corridor, is Downers Grove. Here, at the northern edge of Downers Grove – and indeed north of Interstate 88, whereas most of Downers Grove lies to the south – is commercial development, one of surprisingly high density and startlingly large parking lots. This is along Butterfield Road, the continuation of 22nd Street from Oak Brook. For the purposes of studying Downers Grove, this portion will examine Butterfield Road, and contrast it with Ogden Avenue and Highland Avenue, two other major routes through Downers Grove.

Downers Grove has the opportunity to preserve a downtown core, notably along Ogden and Highland, by concentrating their commercial activity along Butterfield Road. From the point where 22nd Street merges with Butterfield west to Interstate 355, there is a continuous collection of commercial structures, with an aerial view showing the surrounding residential green interrupted by the grey hues of asphalt and concrete parking lots. Major commercial developments include the Yorktown Shopping Center, several other

big box retail locations including a Target to the northeast of Yorktown, a Kohl's department store, a Fry's electronics store, as well as numerous – primarily national chain – restaurants. Immediately south of Interstate 88, which runs almost parallel to Butterfield Road through Downers Grove, are residential developments that appear to be newer-style, with limited access points and seemingly randomly curved roads. This stands in stark contrast to the older core of Downers Grove further south.

Ogden Avenue is a major thoroughfare in the Chicago metro area, serving as part of U.S. 34. With this designation, it is perhaps not a surprise that the development pattern along an older highway is significantly different from that along an Interstate system or later development. At the eastern end for this portion, at Route 83, there is moderate commercial development on the north side of the street – intermingled with what appears to be a fairly new residential development, with older-style grid residential development and a golf course on the south side. This pattern continues while heading west, crossing the major thoroughfare Cass Avenue, and into Downers Grove itself (to the east is technically Westmont). Here there is very low-density commercial with gridded residential development both north and south. Access is continual and equitable, and there seem to be very few traffic hot spots. The intersection with Highland Avenue/Main Street has higher density commercial, though nowhere near the scale as witnessed in other portions of the study area. Municipal facilities and a high school are intermixed with small businesses and a grocery

store, forming an effective, usable downtown. This stretch will be referred to later in the analysis and also in Chapter 5. It isn't until driving west near the intersection with Interstate 355 that major commercial development resurfaces, with many automobile dealerships and a few corporate headquarters increasing the density and pushing the residential developments further to the south.

Highland Avenue is not nearly as much of a major thoroughfare as the other two examined in Downers Grove. Its northern terminus is in neighbouring Lombard, ceasing to exist at an intersection with Roosevelt Road. It runs through the commercial development on the northern edges of Downers Grove, forming the intersection where the aforementioned Yorktown Shopping Center is located. After crossing Interstate 88, Highland Avenue passes newer-style residential development – with limited road access and curved, non-continuous streets – and the Lyman Woods Forest Preserve. It is not until Highland passes Advocate Good Samaritan Hospital that a driver enters the older Downers Grove. During the stretch where Highland is known as Main Street – all the way south to 75th Street – it forms a kind of low-density commercial core. South of the previously discussed intersection with Ogden Avenue, Highland/Main intersects with a Metra rail line, forming a version of Oak Park Avenue in Tinley Park (as discussed in Chapter 3). In fact, while there was some action towards building a cinema complex in Tinley Park before the real estate collapse in 2008, Downers Grove already has this development assembled. All in one location we have restaurants, bars, a public library, the post office, two bakeries, and many

more, smaller commercial developments, as well as the Downers Grove Village Hall. This is all backed by grid-style residential development, allowing for multiple traffic flow patterns and easy access into and out of the area. In short, as discussed in previous chapters, the model of multiple uses at multiple times by multiple socio-economic classes is largely in place here, creating a dynamic downtown center that still does not isolate residential development. Highland/Main then continues as a main residential thoroughfare beyond the borders of Downers Grove.

Oak Brook and Downers Grove are something of a conundrum, then, for the purpose of this study. They have elements of very effective community life, but also have outrageously misplaced development or development that has been ineffectively conceived for proper density. In this way it is somewhat like the Bremen district of Interstate 80, but the problems and solutions here will be unique.

Analysis - Challenges

The Oak Brook/Downers Grove region is unique in that it combines elements of both central city cores and suburban development into one area. Oak Brook's corporate headquarters and flagship shopping attractions mimic a condensed conceptualization of downtown Chicago, while the outer areas of Downers Grove and Oak Brook mimic the newer-style commercial and residential development. The core of Downers Grove, then, suggests how older

residential development, commercial, and municipal space can be combined effectively, and offer the opportunity to imagine this pattern in other areas.

Central Oak Brook is a combination of corporate headquarters and high-end shopping. The difference between Oak Brook's style of development in this regard and the larger version as seen in downtown Chicago is the dependence on the automobile and the encouragement of its use. Having spent a day observing the area from multiple observation points, it strikes me as somewhat ironic that while several of these corporate structures have perfectly manicured lawns, and that Oakbrook Center was designed to be an indoor/outdoor mall, there was hardly a pedestrian to be seen. The appearance and simulation of green space does little against the onslaught of vehicle traffic and seemingly ceaseless traffic lights. A possible solution along 22nd Street would be to increase the residential density as well, perhaps replacing some of the parking lots with actual living space. Such solutions will be examined in more detail in Chapter 5.

The newer style developments in both Oak Brook and Downers Grove face a similar issue in that they are very vehicle dependent. Development along 22nd Street and Butterfield Road, especially with 6-lane highways and wide turning lanes, makes the prospect of simply crossing the street in one change of the traffic lights remote. The same goes for the residential development in the area, with limited access and the signature curved roads. These are much more difficult problems to overcome, though the prospect for creating a sense

of identity, a sense of place, are not dead. Rather, it is a reminder that it is the unique places that we remember the most, and therefore unique solutions to these problems lay down the potential to create a very big positive out of this current difficulty.

The older sections of Downers Grove, by contrast, are a model of what many other communities wish they could do: they have a stable, cohesive residential grid with limited traffic issues and multiple reasons to use their city center. With easy access to both highway and rail transportation for out-of-town employment, this part of the study area does many things correctly. But many ingredients need to be in place to produce a downtown Downers Grove. There must be a stable low-scale commercial community that is dedicated to the area; this helps create a sense of place, and is something that cannot be easily replaced by chain stores. Also, such small businesses are much less likely to play communities against each other for optimal location and benefits. Additionally, there should be the kind of residential development that is seemingly less common in new construction, with multiple access points to make traffic congestion more diffuse. Still, there are elements involved here that can be reproduced in other places within the region and can serve as an example of a positive community point in which citizens want to live. The bigger challenge, perhaps, is in continuing to maintain such a space in the face of commercial and residential pressures on the periphery, as well as the ever-present possibility of changing demographics and values within a community.

Conclusion

Oak Brook and Downers Grove are a short distance spatially but a long way experientially from Tinley Park and New Lenox. Yet, development patterns, while not on the same scale, have been somewhat similar between the two, with residential development in particular showing the same patterns based on era for style of construction. While these spaces are dissimilar, in many ways they are all still the same, still suburbs, with similar problems.

Which is not to suggest that these two regions will have the same solutions to their development challenges. Rather, it is a reminder that solutions will need to be region and site specific, and that there cannot and should not be identical development patterns regardless of place. Oak Brook and Downers Grove benefit from being in DuPage County, a relatively wealthy county with good prospects for further development and investment. Yet, as they are also both well established suburbs, they face fewer choices going forward for new development; instead, they have the opportunity to focus on redevelopment and turning their successful communities into thriving models well-equipped to remain competitive well into the future.

Image – Shutter

Every time I left Oak Brook – usually after a spell of shopping, as we rarely had any other reason to go there – I would be leaving at night, driving in the dark. Driving south on Route 83, it seemed as though we left behind the lights of the city for the forest preserves and occasional dive bar or junkyard

that formed the vast hinterland between the south and west suburbs. The night would go from having a crimson glow to almost a deep, impossibly dark blue, punctuated by the eyes of deer along the side of the road.

Even more vivid is remembering the need to turn the car radio on at a certain point, as though the world itself had gone quiet as we left Oak Brook behind. It always seemed that a song would come on, some CD that had reached a crescendo while we were fighting traffic, would be fading out, as though the frenzy of the noise was slipping beneath the horizon, the music continuing somewhere else, like a parade going by without us around. The south suburbs never had that kind of energy.

Naperville-Lisle

Image – Iris

There was always a clear line between the nearer suburbs with familiar chain-link fences and grocery stores and the like, and when we passed west, heading to Aurora where my sister went to high school. At the time, I-355 was under construction, so on every trip, a bit more of the swooping overpass would be done, feeling to all the world like a new place was being created.

And it was, too. Once we cleared the overpass, the land around us seemed to just open up. Some of it was farm fields, but on every trip, more and more of it seemed to become grass, surrounding a shiny new office building. What struck me, even then, was that I never really saw any people, either through the mirrored glass of the structures, or on the rolling, carefully

manicured grounds. I also saw no homes, no grocery stores, nothing that really seemed to support the existence of people.

There was a sign along the highway that said, right when this altered landscape began, that we were entering the Illinois Technology Corridor or something along those lines – the sign has since changed. What I'll remember about Naperville, that stretch between the suburbs I knew and the city where my sister went to school, was that there didn't seem to be a place where people could live. This was something very, very different.

Orientation & Observation

The Lisle-Naperville study region is really one more of geographic convenience than seamless integration. Naperville will be the majority of the discussion of this section, however the connection that Lisle forms between Downers Grove and Naperville should not be completely discounted. In fact, like other communities in this research, Naperville hardly shows itself along the highway; rather, it has many large-scale commercial-office structures clustered along the main transportation thoroughfare, with residential and commercial-retail centered along other axes. Lisle, however, is built more like a traditional suburb, rather than the proto-city Naperville appears to be. This study area, then, while geographically connected, also provides a convenient contrast in development patterns, suggesting future paths and providing the opportunity to observe what has worked and what has not with respect to the four imperatives that should be balanced for positive growth to occur.

Lisle is centered between railroad tracks to the south and Interstate 88 to the north, comprised mostly of residential neighbourhoods, tucked in between Downers Grove and Naperville. While both appear relatively straightforward, it is worth examining both the residential and commercial aspects of Lisle, as well as the preserve space. The main hub of Lisle is probably Ogden Avenue as an east-west and Lincoln Avenue as a north-south.

From a residential perspective, most of Lisle shows older-style development, with mostly a grid structure that disperses most of the traffic flow. There are some landscape complications that force some roads to curve or not intersect, particularly on the east side of town, so the discontinuation as seen in newer-style residential development is somewhat in effect here as well. To the south of Ogden Avenue, and particularly south of the railroad tracks, the residential pattern gets a bit more haphazard, before forming back into a grid south of Maple Avenue.

The commercial-retail core of Lisle is relatively small-scale, as the surrounding communities have larger retail corridors close-by. Most of the commercial development is along Ogden Avenue, with small retail locations concentrated near the intersection with Main Street, just east of Route 53. Main Street features smaller restaurants and some local businesses as well. There is also some commercial development south of the railroad tracks on Route 53, as well as on Main Street also south of the tracks. There are not many areas that

are overly dense with commercial development, and there are none of the high-density commercial developments as seen in adjoining communities.

From a municipal perspective, the eastern portion of Lisle has most of the typical municipal structures. There are museums along School Street, the next block south of Ogden, just east of Main Street. East of there, along Ogden, is the Post Office and some other Federal buildings. On Route 53, south of the railroad tracks, Lisle's police department has its headquarters. West of Route 53 and the police department is Lisle Community Park, with Lisle High School on its western edge.

Aside from this park and the others within the municipality, there is the Morton Arboretum on the north side of Interstate 88. The Arboretum is almost the size of Lisle itself, and is a regional attraction that brings visitors from well beyond the immediate geographic area. The Arboretum continues along Interstate 88 east of Interstate 355, the terminus for the Lisle-Naperville portion of the study. What we see with all of these boundaries is that Lisle did not have the opportunity to expand the way many of the surrounding municipalities did. Lisle's development, then, has been constrained and does not show nearly as many signs of the later information-era development that is common within the region. Further south, in Woodbridge, east in Downers Grove, and west in Naperville, however, that development is very common. Naperville in particular is an example of how older industrial-era growth and newer information-era

growth can combine to create communities, though not without issues between these eras that still need to be bridged going forward.

Naperville could be considered a proto-city as it has a self-sustaining downtown that mirrors the downtown development of other minor metropolitan centers. Like other cities, it has focused on a hybrid approach involving chain-retail and local businesses, as well as having a well-established higher education institution in North Central University. Yet, there are several commercial centers to Naperville, with the more typical suburban development well represented further out from the core, in an apparent competition with surrounding municipalities to capture big box-style development and the associated tax revenue.

South of Interstate 88, along Aurora Avenue, downtown Naperville is roughly bordered by West Street (west), Jefferson Avenue (north), Washington Street (an approximate eastern boundary), and Aurora Avenue (an approximate southern boundary). This would best define the core commercial areas of downtown, though the surrounding residential areas are somewhat more amorphous, and North Central's campus makes the eastern boundaries in particular a bit more complicated.

The commercial district is impressive in scale for not being a stand-alone regional center. The style of development involving first-floor commercial with residential units above has been recently constructed, with many of the buildings showing signs of relatively recent construction or renovation. A few

buildings are still one-story commercial, but they appear to be in the minority. Sprinkled throughout the downtown area are parking structures, though they are well concealed and give an impression of a district that is not car-dependent, something that is remarkable considering the suburban nature of this study region. Commercial outlets downtown include several local establishments, as well as chain commercial from Apple, Eddie Bauer, Talbots, Ann Taylor, Gap, and Barnes & Noble amongst others. Dining establishments are plentiful and also tend toward the local or regional-chain in nature. Many of these are centered on either side of Jefferson Avenue or Washington Street, hence the difficulty in measuring them as any possible terminus for the downtown definition.

Several municipal facilities exist in this downtown region as well. A local library, the village hall, and the offices of the state representative are all relatively close together, with the latter two along the south side of the small spur of the DuPage River. The river walk is a nice commons space that, unlike the previously-studied New Lenox municipal construction, is well-integrated into the daily needs of Naperville's citizens. Here there are many dozens of reasons for these citizens to be in this district, and the grid nature of this downtown area means that there is a variety of ways in and out of the district. While there are some adjustments that could be made for smoother traffic flow, the overall design is quite effective for a vibrant downtown.

As an addition to the municipal facilities, the campus of North Central University does a great deal to add to the diversity and economic vitality of the downtown district. Positioned immediately east of downtown, North Central is a private Pentecostal-affiliated institution with programs ranging from education to communication to worship arts to, interestingly, urban studies, in both development and in ministry (northcentral.edu). Additionally, there are programs in most of the typical liberal arts subjects, ranging from music to mathematics. North Central also has a variety of athletics as well, creating an additional catalyst for downtown traffic and economic activity.

UBS and Charles Schwab have offices in downtown Naperville. Combine these and other financial institutions with a major higher education institution, and the elements of a global city are all starting to fall into place in Naperville. While it obviously does not have the stand-alone power to survive without Chicago, Naperville's development does begin to point towards a nodal city-regional structure, where the citizens of Naperville would have limited need to travel great distances within their life patterns.

The surrounding residential districts of Naperville are largely the older-style grid development, especially to the north of downtown. From an aesthetic perspective, these homes are impressive, century-old constructions, most of which have been very well kept up. Some homes have been torn down and

replaced by newer-style construction, which is jarring in many locations^{*}. This district is backed to the north by railroad tracks, with stations serving both the regional Metra service and the national Amtrak. Driving north of downtown along Washington Street leads to an intersection with Ogden Avenue. Further west, it diverges, with the existing road continuing as Aurora Road and Ogden itself diving south of Jefferson Avenue, Aurora Avenue, and reemerging with a west-southwest heading. Naperville North High School is also in this general direction, providing a very large, very open campus that is more reminiscent of the office parks along the Interstate than the intimate education found at North Central. Still, at least the remote landscaped parts of this campus, unlike the corporate counterparts, seem to be in use. South of downtown is newer residential development, with many non-continuous roads and limited arterial access. The same is true west of downtown, though the scale of development is limited by railyards and other non-residential space. East of downtown, and east of North Central's campus, is a hybrid residential pattern, with evidence of both grid development and some newer-style development that remains relatively interconnected. East of Charles Street becomes more emblematic of

^{*} My assistant for this portion of the study, who was driving at the time, indicated nothing but hatred towards the practice of tearing down old homes to build new ones on the same property, frequently taking up the entire property's footprint. He claimed the real estate collapse of 2008 as a minor blessing in that it has stopped this practice.

newer-style residential development, continuing east into Lisle with progressively more disconnected residential development.

This downtown is like many others, in that development began with commercial activity at a core, with surrounding residential space. Additionally, the railroad brought connectivity and industrial activity as well. What is interesting is observing the main arterial streets away from downtown, as well as the peripheral transportation routes and the way development has taken such a different turn. For Naperville, that means examining, in addition to downtown, Route 59, 75th Street, Diehl Road, Aurora Road, New York Street/Aurora Avenue, and Ogden Avenue.

Route 59 is a major thoroughfare on the western edge of Naperville. It intersects with Interstate 88 and Interstate 90 to the north (and indeed continues to the Wisconsin border), and continues south through Plainfield until it merges to become part of Interstate 55. It serves a similar function to Route 83 through Oak Brook and much of northeastern Illinois: Route 59 is a continuous non-Interstate thoroughfare that acts as an effective means for getting drivers from one community to another for a variety of needs. Near Naperville, and being on the border, that means an ideal place to develop large-scale commercial retail facilities that are not directly in the middle of town. This means Naperville can benefit from the tax revenues without having these developments directly affect their downtown core or the majority of their residential neighbourhoods. Centering on the intersection of Route 59 and New

York Street, there are four major shopping center developments, resulting in an extra-wide intersection of six lanes in each direction plus turning lanes; this is detrimental to pedestrian traffic and reaffirms this space as an automobile space. On the northwest corner of this intersection is a hybrid big-box/strip mall development, Yorkshire Shopping Center. Retail facilities include Value City Furniture, Pier 1 Imports, a number of smaller chain and independent retailers, mobile phone providers, and fast food restaurants. On the northeast corner, the Heritage Square Shopping Center is significantly larger, featuring an HH Gregg and a Petco as very large tenants, as well as multiple furniture stores, restaurants, and other, similar types of outlets to the shopping center across the street. What is unique about this corner is that, behind the first facing of retail, there is another frontage of retail establishments, including a movie theatre. The retail on this corner also extends rather far both north along Route 59 and east along Aurora Avenue. The southeast corner of the intersection features many chain retail establishments, including a Burlington Coat Factory and a Dollar Tree, as well as an Olive Garden. Further south on this corner is an Office Depot, and a Bed Bath and Beyond, while east on Aurora Avenue features a Michael's. The southwest corner, not to be outdone, features the Fox Valley Mall, replete with department stores JCPenney and Carson Pirie Scott, as well as a host of typical mall stores and outbuildings featuring more retail and food establishments. Further north along Route 59 becomes more residential, with the occasional commercial establishment along the frontage. There is a Metra

station at Route 59, providing an additional non-automobile means to reach Chicago, making Route 59 yet more important. Most of the residential neighbourhoods are newer-style, featuring limited access and curved roads; this pattern continues until the interchange with Interstate 88. To the south, denser commercial development continues, particularly on the west side of the highway. The intersection with Ogden Avenue features strip mall and big box development, and this continues south to the intersection with 75th Street, the southern end of this study area. With such dense commercial structures, it is difficult to argue that this is anything other than mono-zoning development, the type that tries to separate the residential and commercial needs of daily life patterns.

75th Street, at the southern edge of Naperville, merges with Ogden Avenue just west of Route 59. To the east, 75th Street continues until Route 83, merging with it just north of Interstate 55. As such, it is still a fairly major artery, especially as it connects to routes that spread across a great deal of northeast Illinois. Aside from some minor commercial and some small municipals buildings such as elementary schools, there is little besides residential development along 75th Street. The intersection with Naper Boulevard has a supermarket, some fast food outlets, and some minor, strip mall-style retail. In addition, most of the residential development along this thoroughfare is the newer-style development, with limited access to 75th Street itself. This is, as stated earlier, a way to reduce traffic to a trickle on individual

residential streets, making them essentially private to the residents, but increases the traffic volume on the arterial roads. On the southern edge of Naperville, and in neighbouring Aurora, too, as we shall see in the next section, this type of residential development is very much the norm and raises some interesting questions about why residential development has taken a turn towards creating more private enclaves.

At the other end of Naperville is Diehl Road. It is the major road south along Interstate 88, and with that position, it features a great deal of the office structure buildings that would be expected along a major transportation route in the information era. At the eastern end, at Naper Boulevard, Diehl Road features a number of restaurants, as well as a Bank of America mortgage unit, a conference center, multiple churches, and other ancillary services for the office buildings of the area. Further west is a collection of hotels and long-term lodging facilities in the midst of more office structures. Yet further west are corporate headquarters for Wendy's, Con-Agra Foods, OfficeMax, General Motors, as well as Northwestern College's Naperville Campus. The major facility along Diehl Road and Interstate 88, however, is further west still: Tellabs, a research facility with an impressively large campus. In between these sections is the McDowell Grove County Forest Preserve. At Route 59, Diehl has a couple of intersections with newer-style residential development.

Aurora Road is north of the railroad tracks from downtown Naperville, being the continuation of Ogden Avenue's general direction when it dips south,

creating an intersection with Route 59. There is little along the southern side of Aurora Road, as it faces the train tracks. There are some attempts to renovate old industrial buildings along this stretch, with one in particular featuring high-end small businesses below loft condos, with easy, walking access to the Naperville Metra station. On the north side of Aurora Road, there is limited access to newer-style residential development. The intersection with Route 59 features a few chain-style sit-down restaurants, while the intersection with Ogden Avenue has non-chain restaurants and Central DuPage Hospital. With this latter facility, Aurora Road is acting as an important connection with the expansive Route 59 and the equally important Ogden Avenue to create additional access to the hospital.

New York Street/Aurora Avenue ends at Washington Street in downtown Naperville, but changes from the former name to the latter while heading east at Route 59. East of Route 59, as Aurora Avenue, this thoroughfare has a number of automobile dealers, centered more or less on the intersection with Ogden Avenue. These facilities are along the north side of the street, with two artificial lakes along a large part of the south, as well as a Post Office and some residential development. By the time Aurora Avenue intersects with River Road, both sides of the street are residential in nature, though the road pattern is haphazard and allows few intersections with Aurora Avenue itself. Further east, at West Avenue, downtown Naperville essentially begins, with the road curving slightly north to match the path of a spur of the DuPage River. On the south

side of the street is Naperville Central High School; at the next intersection, at Eagle Street, is Naperville's City Hall complex. Aurora Avenue ends at Washington Street, with some small-scale commercial retail development: across Washington Street from Aurora Avenue is an older-themed Burger King, with classic signage and architecture.

Ogden Avenue, like Route 59, is not necessarily only identified with Naperville, but with a broad swath of northern Illinois. US 34, which Ogden Avenue is through this stretch, goes across the state and beyond to the west, while it originates in the near western suburbs of Chicago as its eastern terminus. For the section related to this study area, Naper Boulevard at the east creates an intersection with large retail developments on the north (dominated by automobile dealerships), and some smaller-scale commercial retail developments to the south. Further west, Ogden continues to be a commercial thoroughfare, with more small-scale retail spaces intermixed with restaurants and car rental facilities. By the time Ogden reaches Washington Street, a grid-style of residential development forms the majority, even though the intersection is well north of the railroad tracks that mark the northern boundary of the downtown district. Still, there are several paths into and out of this residential area, making access diffuse and manageable; to the west of Washington Street, Ogden borders Naperville North High School to the north, a large facility that needs multiple access points. West of the high school are some big box retail developments, as well as strip malls and fast food

restaurants. As stated earlier, Ogden then diverges by creating Aurora Road, with Central DuPage Hospital a major part of that intersection.

Analysis - Challenges

The Lisle-Naperville study region is created for academic convenience, and the challenges faced by these two communities are very dissimilar. While Lisle's challenges are in the opportunity to further develop, Naperville's challenges pose a stark test to any solution to information-era growth. The combination of challenges constitutes most of the sum total of possible city-region challenges there can be.

Lisle is constrained on all four sides, though this should not necessarily be viewed as a negative. Rather, with growth limits defined, it is the use of available space that becomes the most important. Lisle faces a challenge of redevelopment, then, not one of development. This is mostly true for the downtown core, as well as the area surrounding the Metra rail station. Combining residential and commercial development in an effective, efficient manner will be the most interesting challenge.

Naperville shows many signs of being a typical old-style community, with a downtown commercial core and surrounding residential development. The type of growth on the periphery isn't really much of a surprise given the competitive nature of development between communities: it is a chase for tax revenues, and if one community does not jump at the chance, another will and will benefit from those dollars. This means that Naperville faces some unique

challenges, challenges it will not be able to tackle without the help of neighbours.

To the north, forest preserves and office complexes are reasonably stable, with the former being an important balance to the surrounding large-scale development and the latter providing a relatively stable cluster of facilities that are economically central and around which planning can be done for what support services and other development might be required. Having Interstate 88 as a backdrop to the north limits some development and redevelopment options.

To the east, Naperville has few continuous roads, leading to traffic being concentrated on a few east-west routes, including Interstate 88. The development pattern, especially around Naper Boulevard, has few through streets and leads to a concentration of traffic patterns. Finding ways to redevelop this into a more continuous pattern is not only difficult from an infrastructure perspective, but also socially and politically in trying to integrate communities that have never been integrated.

To the south, the complication of more curving new-style residential development shows up, with a collection of geometrically interesting patterns south all the way to 75th Street. The near south from downtown is more sustainable, with park and forest preserve space, as well as Naperville Central High School nearer to downtown, and Edwards Hospital further out. Modeling development that does not require automobile use will be the biggest challenge.

To the west, the shopping district along Route 59 is the obvious candidate for redevelopment. These are very heavily automobile dependent, and making them otherwise will require extensive land redevelopment, probably involving turning a large percentage of the parking lots for these areas into residential and non-retail commercial space. In other words, future residential development in Naperville should be encouraged within the midst of the commercial development. The goal here would be to reduce traffic and the need for long-distance travel in daily life patterns for living essentials.

Naperville, then, is in many ways a kind of workshop for what a city can do to redevelop, but on a manageable, observable scale. Contrasted with Lisle, Naperville is more self-sustaining, more of an entity in its own right rather than in the shadow of larger elements of the city-region. The section in Chapter 5 related to redevelopment steps leans heavily on understanding a microcosm such as Naperville to understand larger city-region needs and ultimately global patterns of future development.

Conclusion

The Lisle-Naperville study region poses many interesting challenges for this study by presenting so many different development styles, to say nothing of all of the competing interests involved and the way the four imperatives will be challenged to co-exist. This is particularly true for Naperville, where commercial development and newer-style residential construction has resulted in some

distinct transportation challenges, to say nothing of the challenges involved in changing life patterns so dramatically.

While the long-term economic and ecological challenges seem to be the most obvious, maintaining the sense of community both socially and politically is quite important as well. If ever there was justification for community involvement in development plans, the Lisle-Naperville study region exemplifies it.

Iris – Shutter

Until this project, I don't think I had ever stopped in Naperville. Or Lisle. Or anywhere between Oak Brook and Aurora. I remember the office structures going up, and one in particular that has an "N" shape on each of its four sides. For Naperville, I was later told. Cute.

What I remember most was how these buildings were so beautiful. Spotless. Like they were never used. The landscaping, too, is perfectly shaped, with grass moving in geometric directions from lawnmowers, the only thing other than rain that ever touches most of these blades of grass.

I asked my mother one time what happened in those buildings. She didn't know. And I still don't know. I've never seen any work going on there, though the parking lot is always full, surrounding this monolith, seemingly by itself, with nothing else that is recognizable as a part of an average life-pattern evident.

Why do we do this, build this way, again?

Aurora-Batavia

Image – Iris

I never really knew where Aurora was growing up. It was someplace west, I remember, and even then, it was obviously a distinct city of its own, not like other suburbs. In the 80's and early 90's, it wasn't even continuous development all the way there. Sitting in the back seat, the world would blur by. Then, we'd be there.

My sister's high school was built out on the edges of Aurora, to the point where I never knew what the old part of the city looked like until her graduation ceremony. I remember more how Aurora, and the surrounding communities of Batavia, Geneva, and St. Charles, all seemed to have such beautiful new buildings everywhere, like someone decided to just pack up a bunch of people and start over. It's a seductive sensation, and in many of the suburban and exurban parts of the country, despite the development challenges, it still is.

Orientation & Observation

Aurora, Illinois is nearly as old as nearby Chicago - Aurora was founded around 1834, with Chicago incorporated in 1833 (aurora-il.org) – and is the second-largest city in Illinois (ibid). Positioned along the Fox River, Aurora is in what would be considered a good place for industrial-era economic activity, much in the way Joliet was (as discussed in Chapter 3). Further north along the river, Batavia, Geneva, and St. Charles form smaller though equally well-established communities that should also be considered a part of this study

area. For the purposes of this study, and in the interests of limiting the scope, this section will deal with Aurora, North Aurora (the portion of Aurora north of Interstate 88) and Batavia, the furthest south of the three surrounding communities. Understanding the dynamic here is important for understanding how existing communities – from village to city – can be absorbed into a city-region and what that means for development and redevelopment goals.

Aurora needs to be considered much the way Naperville is considered: with an older downtown core, surrounded by older supporting development, with newer-style development on the periphery. The overall study of Aurora will examine downtown, as well as the major thoroughfares within a box roughly formed by Eola Road (east), Lincoln Highway (south), Orchard Road (west), and Indian Trail Road (north).

Downtown Aurora is a small corridor generally bordered by New York Street, Broadway, Lake Street, and Benton Street. Like a mini-Manhattan, a portion of downtown Aurora is actually part of an island. Also, like many other successful cities, downtown Aurora is presently a combination of entertainment facilities and educational institutions. Waubensee Community College opened a campus downtown on Galena Street, surrounded by many older buildings that have been renovated for some commercial facilities with residential space above. Nearby, the Paramount Theatre is an historical building that is also in active use with contemporary entertainment. During observation in October 2011, the marquee advertised Huey Lewis, Bill Engvall, Cyndi Lauper, and Mary

Chapin Carpenter as upcoming acts. Parking near the facility is largely hidden, similar to the way it is in Naperville, in structures that are not outwardly obviously for parking, nor are they overly large to dominate the landscape. The parallels to Joliet are very obvious, with the infrastructure similar. What is different, however, is the placement of education facilities and the integration of the downtown core into a high number of daily life patterns. Joliet does not have nearly this much density in this regard.

Nearby, the local Metra rail station also happens to be the western terminus of the line. Just beyond the station itself is a yard, with more than a half dozen engines facing an observer. The Aurora Transit Center is an impressive regional facility, with access to Metra regional rail transit and Greyhound bus services. Additionally, there are services including a barber, a coffee shop, and an impressive array of vending machines – including one dispensing bouquets of flowers – available to commuters. This facility is a few blocks from downtown, and serves as a good conduit for serving both the greater Chicago city-region and the needs of Aurora itself. Here, too, we see parallels with Joliet.

Attached to the Aurora Transit Center is the Roundhouse, a facility that once was responsible for reorienting rail traffic. As such, this large facility is something of a landmark, one that had been turned into a local brewery at one point. At the time of observation, the Two Brothers brewery had taken ownership of the facility and was in the process of moving in and making use of

the complex. Wandering around the facility, there was a restaurant, a sports bar, a full brewery, and that was only about half of the total indoor space.

There was also a banquet facility, as well as some unused space. In the center, a large courtyard had room for performances, outdoor grilling, an outdoor bar, seating for more than two hundred, and extra space available beyond that. My guide explained that, on NFL gamedays, customers are invited to come and tailgate in the center courtyard before the game; a certain number of those participating are then guaranteed seating in the sports bar portion during the game. The proximity of the facility to the commuter tracks makes it a likely local focal point of activity at select times of the day, though the facility, removed from downtown but not along the heavily traveled thoroughfares, harkens more to the financial district of New York (and Chicago), going largely unused during large swaths of the day.

East of the rail station and Roundhouse becomes somewhat industrial, which is to be expected along such a rail route. Service commercial and industrial facilities, somewhat reminiscent of the Thornton study region, dominate, even down to the isolated tavern and nearby water treatment plant.

Also nearby is Aurora River Edge Park, a combination Federal, County, and local project. According to Terry Guen Design Associates, the landscape architects behind the project, the (loftily expressed) plan for the park “rehabilitates the post-industrial Fox River shoreline into a setting of natural beauty, where the flow of the river is felt, connections to history and community

can be realized; a place for exploration, celebration, interaction, and nourishment of the human spirit" (tgda.net). The goal to become a kind of centralized location, an attraction for citizens (ibid), is laudable; however there must be concerns about creating a space akin to New Lenox's public commons. The question that should be asked for this multi-use river front attraction is why citizens will use it, for what will they use it, and how will it find a diverse collection of users at different times and for different purposes? The notion of cleaning up and repurposing former industrial sites is important, though making them into useful spaces is difficult, and doing so effectively and inline with the four imperatives will be discussed in Chapter 5.

While the subject of downtown Aurora is intertwined with the act of redevelopment, many of the surrounding areas of Aurora are coming off of their initial development, as a low-density construction boom over the last several decades has resulted in the filling-in of this portion of the Chicago city-region. To the east, this expansion continues all the way to the boundary with Naperville at Route 59; as this has been covered in the previous section, this study region will begin with the next major road west of Route 59, Eola Road.

Eola Road begins just north of Interstate 88 at an intersection with Butterfield Road. To the north of that is Fermilab, a national research laboratory. Eola continues along the east side of Aurora, south Ogden Avenue and Wolf's Crossing (where it becomes Heggs Road), eventually ending at an intersection with Pilcher Road, northwest of the community of Plainfield. At the

north end, Eola passes some light industrial and commercial facilities, including some electric utility facilities. Further south, south of Interstate 88, Eola passes through residential neighbourhoods, though ones with extremely limited access. In fact, aside from an access point across from Metea Valley High School, Stonebridge Boulevard is the only access point to two different subdivisions along Eola north of Aurora Road. With relatively tightly packed residential construction, this results in concentrated traffic patterns on a few roads. At the intersection with Aurora Road, some small-scale commercial retail buildings, as well as a grocery store, dominate all four corners of the intersection. The pattern repeats heading south, with more limited-access residential construction, with four-corner retail at the intersection with New York Street (this time with a competing grocery chain). The repetition of the pattern is remarkable, including the curved-road residential development that surrounds the road for such a long period, with the landscape changing only when Eola becomes Wolf's Crossing Road, with agricultural production dominating the landscape instead of the new construction – which was probably fairly recently agricultural in nature.

The next major north-south thoroughfare is some ways west, and is also the next intersection with Interstate 88: Farnsworth Avenue. Farnsworth becomes Kird Road just north of Interstate 88, and continues to parallel the communities along the Fox River north until merging with Dunham Road on the northern edge of St. Charles. To the south, Farnsworth is interrupted by

Montgomery Road, just north of Ogden Avenue. At the north end for Aurora, Farnsworth is the major route along the Chicago Premium Outlets, an outlet mall destination featuring well-known brands. On the west side of Farnsworth, office buildings and speculative warehousing dominate the landscape, with some restaurant and other support facilities sprinkled around the main intersections, such as the one with Bilter Road. South of Interstate 88 but north of the railroad tracks, Farnsworth is largely an avenue of low-density commercial, featuring restaurants and services, frequently in strip mall-style developments. South of the railroad tracks, Farnsworth becomes a major thoroughfare through older-style residential communities, with schools integrated within the construction and a grid pattern of roads that defrays traffic in all directions. A similar pattern continues south with increased forest preserve and park space giving way to new residential construction, a golf course, agriculture, and the end of Farnsworth.

Further west, Ohio Street serves a similar function to Farnsworth, though it only exists south of Indian Trail Road and merges with two other roads to the south near where Farnsworth ends. It is a thoroughfare through traditional grid residential neighbourhoods, with periodic low-density, low-scale commercial-retail development near fairly major intersections.

Illinois 25 is the major thoroughfare immediately east of the Fox River, carrying a number of names in the process. Extending to Algonquin in the north (a far northern suburb) and south to Oswego (immediately south of the study

area), it is a fairly major regional route, forming the eastside of downtown Aurora as well, when it is called Broadway. At the northern end of the study area, as River Road, Illinois 25 does not have an intersection with Interstate 88. Instead, it serves a variety of zoned properties, from a quarry to a country club to several residential neighbourhoods. South of Interstate 88, Illinois 25 continues through some relatively undeveloped land, some in use for light industrial purposes, as well as two cemeteries. At the intersection with Illinois Avenue, just north of downtown, some commercial-service and light industrial facilities are mixed in with older-style residential neighbourhoods. A major post office distribution facility then brings a driver down past the previously mentioned rail station and Roundhouse facility, into downtown. South of the downtown area, this route reverts to a residential neighbourhood artery, while also winding through several parks and additional cemeteries. By the intersection with U.S. 30, Illinois 25 is serving newer-style residential developments with curved-roads and limited access points. Further south is the community of Oswego, with a small downtown, featuring grid-style development, surrounded by a much larger swathe of newer-style residential development and isolated commercial-retail development.

Illinois 31 parallels Illinois 25, though on the west side of the Fox River. Primarily known as Lake Street, Illinois 31 continues north until merging with US Highway 12 just south of the Wisconsin border. At the southern end, Illinois 31 also ceases at Oswego, also merging with U.S. 34, which is Ogden Avenue in

other sections of this study region. Illinois 31 does have a partial interchange with Interstate 88, making it the slightly more traveled road between the two. As such, the development along it is slightly more-dense than the development along Illinois 25. A large movie theatre and Provena Mercy Medical Center are two major developments along the western side of the street, with smaller commercial-retail, primarily in the form of strip malls, lining the east side. Additional shopping complexes are interspersed with older grid-style residential development directly south of the intersection with Indian Trail Road, following south of the intersection with Illinois Avenue. Illinois 31 is slightly more removed from the downtown flow of Aurora itself, though there has been considerable commercial-retail development along this stretch in the era following the downtown boom. South of downtown, Illinois 31 serves some industrial facilities, including a major Caterpillar manufacturing plant, before merging with US 34 at Oswego.

Randall Road is the next major north-south thoroughfare to the west, and it has a great deal of newer development along it. It goes north from the study region with remarkably little oscillation until merging with McHenry Avenue just south of the community of Crystal Lake. Randall only proceeds south through approximately half of the study area, however, ending at Galena Boulevard, approximately even to but west of downtown Aurora. Randall Road does not interchange with Interstate 88, and development near the Interstate is low-density. There is the Randall Plaza Shopping Center, located at the intersection

of Randall and Sullivan Road, with the Illinois Mathematics and Science Academy – a kind of boarding magnet high school with an emphasis on science achievement but still with a strong presence in the arts – across Sullivan on the southwest corner of the intersection. On the northeast corner is the Balaji Temple. Travelling south goes from newer-style residential development to an older-style, with a grid-system in place by the time Randall skirts the property of West Senior High School at Galena Boulevard. Randall does continue briefly as a side street, dead-ending at Aurora University. It is also revived briefly at the other side of campus, only to end at County Highway 24.

At the western edge of the study region, Orchard Road is a major north-south thoroughfare, also marking a divergence for Interstate 88: beyond this point it has significantly fewer access points and begins curving to the west-northwest. Orchard has little life north of Interstate 88, becoming Mooseheart Road and ending at Illinois 31. To the south, Orchard becomes Minkler Road south of the Fox River near Oswego, eventually ending at Schoolhouse Road, out amidst farm fields and the occasional real estate development. Immediately north of Interstate 88, Orchard skirts a large complex of automobile dealerships, as well as a McDonald's and Woodman's an extremely large grocery store. Surrounding this is little beyond crops, though the potential is there to develop this land in the future, with all of the proper road infrastructure in place and service locations already established. South of Interstate 88, Orchard features a strip of chain restaurants with a few service locations mixed in. At the

intersection with Indian Trail, there is a combination of big-box retail, newer-style residential development (fronted by low-density commercial-service), and an intermodal transportation depot. This is an unusual combination, one that has seemingly no parallels in this research project. Further south continues the identity crisis, with more newer-style residential development, a golf course, two artificially constructed lakes (presumably for storm water management), and the occasional bit of agriculture. The intersection with Galena Boulevard is most intriguing, as it features no buildings and no access points at the intersection itself. West on Galena offers a single access point to the residential construction, while east is a major commercial-retail development that will be discussed with the east-west thoroughfares. Very limited-access residential development continues south, beyond the intersection with Prairie Street, south of the railroad tracks, with some small-scale, and seemingly non-chain, commercial services and retail locations south of the main development. These include equestrian facilities and an animal hospital, indicating some of the more rural demand for commercial establishments. South from here features mostly agricultural or preserve land, with another intermodal facility as well. At the intersection with Base Line Road, more big box and outbuilding commercial is present, with a WalMart, Burger King, Fifth Third Bank, and other common chains. By this point, beyond the study region, most land is a combination of agricultural or seemingly randomly placed residential development, with occasional strip mall commercial development until Orchard's southern terminus.

The variety of the north-south thoroughfares show the different purposes present with respect to Aurora and Interstate 88: roads that connect to both tend to be major thoroughfares, while ones connected to one or the other have a different style of development. Major roads on the periphery highlight the low-density nature of recent development, as well as how zoning has changed in recent years to favour single-use rather than mixing differing zones into closer proximity. The east-west thoroughfares give a similar picture, though their discontinuous nature for Aurora marks them as distinct from the north-south routes.

The east-west thoroughfares around Aurora are much less continuous than the north-south ones. Major routes to consider are Diehl Road/Molitor Road, Sullivan Road, Indian Trail Road, Illinois Avenue, Galena Boulevard, New York Street, Prairie Street, Jericho Road, Aucutt Road, Montgomery Road, Ogden Avenue/Oswego Road, and Lincoln Highway. Most of these roads are relatively short-lived, with few crossing the Fox River and continuing for any distance. This has the effect of isolating the two sides of the river from one another.

Diehl Road/Molitor Road, a major thoroughfare in the Naperville study region, only exists between Eola Road and Farnsworth Avenue in the Aurora study region. On either side of the street near Eola is commercial-service and warehousing facilities, with a few commercial-retail outlets as well. Further west, when it becomes Molitor Road, this thoroughfare serves a few newer

residential communities, though most of them have frequent access points, a laudable model of development. Molitor does continue briefly west of Farnsworth, serving some residential neighbourhoods, some not completely developed and with signs of agriculture, as well as some low-density commercial retail locations at the intersection with Farnsworth.

Much further west, on the other side of the river, Sullivan Road serves a similar function to Diehl/Molitor. Sullivan does exist briefly east of the Fox River, though it dead-ends at Mitchell Road, along-side some commercial-service locations and industrial sites. The Fox River, then, is not a barrier to Sullivan continuing and forming a major thoroughfare across north Aurora, but rather it was a design decision. At Illinois 31, Sullivan Road forms an intersection with some retail locations, as previously mentioned, including a major movie theatre and some fast food outlets. Across the street is Provena Mercy Medical Center. Further west, Sullivan begins to serve some residential neighbourhoods, newer-style with limited access^{*}. Intermixed here is some low-density industrial development, leading to some potential for industrial employment being relatively close to residential neighbourhoods. This pattern continues west, interrupted by the Illinois Mathematics and Science Academy, Aurora Christian High School, and interestingly, increasing density of agriculture. Newer-style residential developments are still present, and some of the industrial

^{*} From a first-person perspective, none of these existed when my sister attended high school in this area in the early 90's. These were still all cornfields with the occasional structure.

development is speculative warehousing or seemingly design facilities, with sprawling campuses reminiscent of Oak Brook. Sullivan curves sharply north at Orchard Road, continuing for a ways before ending as a farm road, featuring agriculture and low-density commercial-retail towards the end.

Indian Trail Road is one of the few continuous thoroughfares that travels east-west in the Aurora study region. Formed at the eastern end by the divergence of Ogden Avenue in Naperville, and continuing west as far as Orchard before becoming a minor road, diverging south, and ending at the mostly parallel Galena Boulevard, Indian Trail is still a major commercial and residential thoroughfare, and the style of development along it tends to concentrate traffic patterns rather than defraying them. At Eola Road, Indian Trail is lined with commercial-retail locations, including several strip mall facilities, a grocery store, and a big box store amongst others. Directly to the west of this intersection is newer-style residential, though there are only two access points for the ones on the south side of the street and none for those on the north. Given that this is also relatively high-density residential development – for the suburbs, at least – this means that these two access points are heavily used, and if life patterns send people east, that dramatically increases the pressure on the intersection with Eola. This pattern continues west, with two golf courses interrupting the rows of houses, though still with very few access points. Some of these developments were in progress during the time of study, which is impressive in the midst of a real estate collapse and economic

slowdown. West of most of this development – but still east of the Fox River – is some agriculture, including old farm houses in use, all in the midst of suburban development on all sides. It is a curious sight, and one that highlights the transition that is underway for this area. The next intersection to the west, Farnsworth, shows this transition, with more developed commercial-retail on the south side of the street, with just a few commercial and residential structures to the north. It is reasonable to expect this to be filled in once economic conditions are again favourable. The very, very impressive Aurora Police Department building is on the north side of the street, west of the intersection with Farnsworth. Behind this are several buildings for Kane County's administration. By appearance, this is a new structure, and one that anticipates a much larger demand in the future, much the way the New Lenox Village Hall is anticipating a much larger future population. The pattern of limited access residential and occasional agricultural sites continues west to the intersection with Mitchell Road. Between Mitchell Road and Illinois 25/the Fox River is a collection of strip mall and big box retail establishments, with low-density industrial facilities unsurprisingly behind them, near to and emblematic of the industrial legacy of the Fox River. There is an island in the Fox River at this point, which features GW Gregory Park; it is accessible with limited parking off of Indian Trail Road. Major big-box and grocery facilities, as well as some strip mall and fast food outlets, line the intersection with Illinois 31. Beyond this, the pattern of limited-access residential is continued, though aside from the limited

access, the neighbourhoods appear to be older, with a grid pattern in place.

Further west is an FAA facility that houses the regional air traffic control operation. Other facilities that are largely medical in nature – a kind of commercial-service – are adjacent to the FAA facility, forming a destination area, one that could be used for future development goals. Limited-access residential continues west, interrupted by the occasional educational facility or undeveloped space all the way to Orchard Road. At Orchard is the previously discussed intermodal facility with strip-mall style commercial-retail and commercial-services. West of here are residential developments that are still under construction, backing to agricultural and preserve space.

There is significantly less to say about Illinois Avenue through Aurora. Like Sullivan Road, Illinois crosses the Fox River, but it does not go beyond Illinois 25, forming an intersection with commercial-service facilities. Like Indian Trail, there is an island in the Fox River at this point, with road access and even some dock facilities. At the intersection with Illinois 31, further west, low-density commercial-retail exists backed by older-style residential developments, with more frequent access points than the thoroughfares further north. There is also a Park District facility on the southeast corner of the Illinois Avenue/IL-31 intersection. Illinois Avenue continues west through older neighbourhoods, with frequent, regular access points that serve to defray the traffic pattern. At Highland Avenue, the zoning pattern appears to change, with light and even some heavy industrial facilities. This means there is reasonable access from the

residential neighbourhoods, implying a short commute should those who work here live nearby. Further west, intermixed with the lighter industrial, are education facilities, some commercial-service facilities, and more residential development. West of here is newer-style residential development, though the access points are relatively frequent. At Orchard Road, Illinois Avenue becomes Canterbury Road and has golf courses on either side. Canterbury is then a residential spine road, with many smaller residential streets attached to it, providing a sole access point - after curving south - at Galena Boulevard.

Galena Boulevard forms part of downtown Aurora, though its eastward penetration is not regional; it curves south and becomes a smaller residential street west of Farnsworth Avenue. From that point west to downtown Galena is a familiar city neighbourhood street, passing by gridded residential development with the occasional commercial development intermixed. When Galena curves to the northwest, to match the pattern of downtown, the residential development becomes more intermixed with commercial facilities, and once the thoroughfare intersects with the railroad tracks, all of the development is old-style downtown commercial, as previously discussed. West of the Fox River, by the time Galena travels west of Illinois 31, it is back to being primarily residential with intermixed commercial. This is the case west all the way to West Senior High School, a large facility that is several city blocks on each side. West of here, the residential development starts to limit access, with roads that curve for reasons that are not geographic. This is interrupted by some major

big-box and strip mall commercial-retail developments, extending all the way to Orchard Road. Galena extends west of Orchard for a couple of miles, bordering preserve and agriculture and residential neighbourhoods with tremendously interesting geometry, before curving to the south and merging with Illinois 56 near the Aurora Municipal Airport.

New York Street also forms part of downtown Aurora, though unlike Galena, it is a major road more on the east side than the west side^{*}. New York is also a major road in the Naperville study region, and the development pattern on the east side of Aurora mirrors that on the western edge of Naperville: limited access residential, occasional big box or strip mall-style commercial. Between Eola and Farnsworth, New York is quite varied, with a number of newer-style residential developments, some preserve and undeveloped space, some isolated commercial facilities, and a general parabolic curve to the road, one that stands in contrast to the straight line it forms through most of the rest of the study region. Beyond Farnsworth, New York mirrors Galena much more, acting as a conduit through older-style neighbourhoods, with grid-style residential development occasionally interrupted by commercial or municipal/education facilities. At the same point where Galena turns to fit the downtown pattern, New York also becomes more commercial, passing through

^{*} This is, anecdotally, reminiscent of the light rail pattern in Portland, Oregon, with one line largely serving the east but also downtown, while another line likewise was downtown but ventured west. A rider would have to switch from one to the other to transverse the region.

downtown as previously discussed. West of downtown, New York becomes less of a major thoroughfare, interrupted at an elementary school, and ultimately ending at West Senior High School.

Prairie Street, unlike the other recent examples, does not cross the Fox River; it begins in the industrial area between Illinois 31 and the River, crossing with several relatively north-south streets in quick succession, and going from light industrial to residential to commercial very rapidly. West of a spur railroad line, Prairie becomes a more conventional residential street. This pattern continues west, even with larger pieces of property for each residential structure: the grid pattern is maintained, even with Aurora University passing near to the north and some light commercial and a golf course to the south. The residential neighbourhoods only become limited access nearest to the intersection with Orchard Road. Prairie curves north, through some recently completed and in-progress residential developments, before ending (as we have seen with some other major thoroughfares) at Galena Boulevard.

Jericho Road is also a west-side thoroughfare, just south of Prairie. It begins as Arnold Avenue just east of Illinois 31 in some residential neighbourhoods, not crossing a rail spur line that branches off just to the north. As Jericho, this thoroughfare serves some of the areas around established industrial developments, with land-use density being relatively light this far south. What is interesting is that Jericho goes through some preserve and agricultural land, and then the residential development eventually becomes

denser. This is not grid-style residential, though there are frequent access points. West of Orchard, Jericho is primarily an agricultural road, though it does continue, with a few changes in direction, all the way to the community of Hinckley, about as far west as Downers Grove is east from Aurora.

Aucutt Road is further to the south, out of Aurora itself, running only from Illinois 31 to Orchard, though there is a way through to the east, changing direction a few times and crossing to the other side of the Fox River. Aucutt is interesting in that it does not serve any residential developments. Instead, it connects commercial-service and commercial-retail facilities, as well as forming a conduit between the larger Illinois 31 and Orchard.

Montgomery Road is the road vaguely accessible by a few turns from Aucutt. To the east, Montgomery Road extends to Route 59; at Eola, newer-style residential developments with limited access points dominate the landscape in all directions. West of Eola, Montgomery's major intersection is with Ogden Avenue, though this intersection has only a few commercial-retail strip mall-style developments, with more limited access residential and some undeveloped land. Further west, beyond a self-storage facility, agricultural land dominates the south side of Montgomery, with residential properties set back from the north side, with only one access point, thus funneling traffic all to one point. A golf course and some newer style development are on the edges of some older-style grid residential neighbourhoods for the community of Boulder Hill; west of here, passing along a development style that is reminiscent of New

York and Galena through Aurora, Montgomery curves, ending by intersecting with other roads, and crossing the river and becoming Aucutt.

Ogden Avenue/Oswego Road continues to transverse multiple study regions, having begun well to the east beyond the Oak Brook study region. As previously discussed, U.S. 34 continues across the state; for this study area, examining Ogden from Eola to Orchard will be more than sufficient, even though it dips further south than would normally be included in this study area. At Eola, Ogden borders Waubonsie Valley High School, with newer-style residential development lining both sides of Ogden until the intersection with Montgomery. At this intersection, some small-scale commercial-retail exists on one side, with residential set back on the other, though with no access points. Rush Copley Medical Center serves as a regional medical facility, built much like the Aurora Police Department headquarters – for all appearances – for a larger population. At the intersection with Farnsworth, more residential developments have very limited access, funneling once again a great deal of traffic to very few roads. Additionally, aside from the Medical Center, there is little other zoning through this stretch, meaning it is likely there is a decently-long commute for many of these residents. Some new big box commercial-retail development exists on the corner with Lincoln Highway, with much of the construction being very recent or ongoing. This pattern continues further southwest, with newer residential developments and big box retail being carved out of the agricultural land on respective sides of Ogden/Oswego. Oswego Road (as it is known by

this point) then passes through a cemetery, forming a commercial intersection with Chicago Road/Wolf's Crossing, with Chicago Road continuing as U.S. 34 west, going through the community of Oswego with grid-style development. Low-density development continues on the west side of the river, with new retail construction mirroring further east on the same road.

The last east-west thoroughfare to consider for the Aurora study region is Lincoln Highway, U.S. 30. This is not to be confused with the same name and number that parallels part of Interstate 80 in the New Lenox-Joliet study region: while it is indeed the same connecting highway, the nature of the highway by this point is much different. West of the intersection with Oswego Road, Lincoln Highway passes through some agricultural land, with newer-style residential and big box retail development west of the farmland but east of the Fox River. West of the Fox River, Lincoln Highway forms a southern barrier to the residential and light commercial development that lines the strip between Illinois 31 and the Fox River. Lincoln Highway then winds past some industrial and residential development, though without any access to either. At the intersection with Orchard, there is more access to some light industrial facilities, as well as big box retail development. All in all, Lincoln Highway through the Aurora study region is much less central to development patterns.

The east-west thoroughfares for the Aurora study-region act as a microcosm for the styles of development present in this research. From grid-style residential development and mixed-use zoning to the newer-style limited-

access residential and mono-zoning, these thoroughfares reveal the development choices that have been made over the last century. Across Interstate 88, the communities of North Aurora and Batavia give us a less dense way of examining these same issues, with the latter presenting a particularly interesting hypothetical study of how to recreate a vibrant downtown.

North Aurora is a continuation of Aurora on the north side of Interstate 88, with little break in the development patterns on either side. Confining the study from Randall Road to the west, Hart Road to the east, and Mooseheart Road to the north, there are fewer major thoroughfares to consider.

Randall Road, as discussed in the last section, is a major north-south thoroughfare. Through North Aurora, Randall passes through areas of new development, with most of the commercial structures appearing to be very recently constructed. At the intersection with Oak Street, new commercial development is backed by newer-style limited access residential construction. This pattern is repeated on the way to Mooseheart Road, with only one main access point to the extensive residential development. North of Mooseheart, Randall is flanked by agricultural land on both sides.

Oak Street is an east-west thoroughfare that forms part of the main core of North Aurora on the west side of the Fox River. Extending west to Orchard Road, Oak is flanked by residential developments, though still with limited access until Illinois 31, where a smaller grid pattern is established.

Illinois 31 goes through the commercial core of North Aurora, connecting the community with Aurora to the south and Batavia to the north. Strip mall-style commercial-retail development is prominent south of Oak Street, with some old residential single-family structures to the north. The divergence in style at Oak Street is really very striking.

Through North Aurora, Illinois 25 is a mixture of industrial and residential. As a north-south thoroughfare, this is similar to Butterfield Road – with which it intersects – as an east-west. Both border newer-style limited-access residential development, older, grid residential development, and some industrial/extraction facilities as well.

Hart Road is on the eastern periphery of North Aurora, and there is either newer or limited development flanking it. South, at Interstate 88 (as Mitchell Road), Hart passes by intermodal and speculative warehousing facilities on one side, with newer-style residential on the other – though with no access. North of Butterfield Road, Hart is surrounded by agricultural land, with newer-style limited-access residential development north of that. This continues north into Batavia, where Hart ends at Pine Street.

Mooseheart Road is perhaps the most interesting facet of North Aurora, acting as the southern boundary between North Aurora and the Mooseheart Child City & School, a sprawling residential childcare facility. It is a 1000 acre facility (mooseheart.org) that is low-density and separates North Aurora from

Aurora. Aside from that facility, Mooseheart Road passes limited-access residential developments on its south side, with agricultural land to the north.

North Aurora is in many ways a microcosm of Aurora itself, with an older core surrounded by newer-style development. This scale will be useful in Chapter 5 when suggesting possible means of redevelopment and remediation. So to will Batavia, to the north, and the hypothetical redevelopment goals that would recentralize downtown.

North of the Mooseheart facility and south of Batavia is the Les Arends County Forest Preserve, acting as a further buffer between Aurora and North Aurora to the south and the communities of Batavia, Geneva, and St. Charles further north. Taking Batavia as a microcosm of the latter three, this portion of the study will concentrate on the downtown district rather than identifying the major thoroughfares.

Much of Batavia is laid out as a grid, though relatively low-density. A look from satellite imagery shows the curving roads of newer-style residential developments on the periphery, showing how Batavia had a prosperous industrial era and has also grown in the information era of development.

For the purposes of this study, we will consider the intersection of Illinois 31 and the east-west Wilson Street as the downtown core. There are many restaurants and small-scale retail outlets here; it is a very walkable downtown. East of Illinois 31, on Water Street, some art studios have moved in, and further east yet, on Shumway Avenue, some structures that border the river have been

made into commercial structures. There is also a large open space, one that could be redeveloped to help the downtown become more functional. East on Wilson Street, across the Fox River, more low-density commercial structures line the street. River Street, a north-south thoroughfare extending north from Wilson, there are more restaurants and commercial-service facilities. Further to the north, my guide informs me that the facility where the old windmills that were used as water wells across the agricultural lands in the United States were built. Regardless of their origins, there are several old industrial structures along the river on this stretch.

During observation, at different times on both a weekday and a weekend, the downtown area is not heavily used as a pedestrian area, as we would see in downtown Tinley Park or Naperville. Frequently, citizens in automobiles can be observed pulling up to a specific establishment, make use of that establishment, and leave. There seem to be few features downtown that pull people down there to use multiple facilities. This is difficult, however, as there are none of the features that tend to create a vibrant downtown in Batavia. It is difficult to imagine starting an institution of higher education to this end, as such an endeavour would be financially intensive. It would be possible to encourage private investment, however. Attracting financial institutions might prove more difficult, especially with Batavia being more of a residential community. Most of Batavia's development over the last few decades has been residential, in fact.

Batavia will prove to be a useful tool for examining solutions in Chapter 5, as the scale is manageable and the situation there is one replicated across other communities in multiple study regions. Such bedroom communities are very common and are becoming more so as the United States becomes more and more suburban.

Analysis & Challenges

Similar to Joliet, Aurora's challenges lie largely in how to convert from an independent industrial city to a part of a larger city-region that is better suited for an information-era economy. This region has experienced some success with addressing many of these issues, but the overall development pattern raises further problems, especially for creating common, usable spaces for citizens.

Aurora and Batavia, as former industrial cities, have undergone a great deal of development – both residential and commercial – in the process of becoming a part of the Chicago city-region. This has resulted in increased population, commerce, and tax revenue, but also has increased infrastructure costs and congestion. Additionally, it can be difficult to redevelop land that has already been developed, especially when that prior development is perhaps no longer effective.

Aurora faces the issue of transitioning from a downtown and surrounding industrial space - that is no longer serving its function in development - to a node within a major global city-region. Areas such as the Roundhouse and

Transit Center are a logical place to begin this redevelopment, extending it into the downtown core, creating a secondary, more residential destination that can still support some of the facets of an independent city. The struggle comes from areas like the riverfront park, where the intention is to make a space serve a specific function, but without the overlapping citizen needs and life patterns to make this effective. We will explore more of this in the solutions proposed in Chapter 5.

Batavia faces stronger problems, though not ones that are insurmountable. Without a rail connection to the Chicago city-region, Batavia is dependent on the highway connections in the neighbouring communities. This means, for better or worse, Batavia's fate is closely intertwined with these surrounding areas: Aurora, North Aurora, Geneva, and St. Charles. With a large residential population and a relatively small commercial core, Batavia's challenge is in creating a viable downtown core that is relevant to residents and becomes a kind of destination for a broad variety of citizens at different times. The question becomes how this can be established and what steps the community can take – both independently and in conjunction with neighbouring communities – to make this work. Taking the quasi city-state model, such cooperative development would be in the interests of the entire study region.

The challenges are reminiscent of Joliet, but the situation with Aurora and Batavia in particular is unique. With Joliet, the issue is one of trying to bring an old downtown core back to relevance. With Aurora, that relevance never faded

quite as much, and as such, it is as much maintenance as it is radical change.

While this may constrict what mass redevelopment is possible, it also ensures a healthy core is already in place, allowing for future growth to be in an augmentary position.

Conclusion

The Aurora-Batavia study region is one with unique challenges, and acts as a transition between the suburban city-region developments to the east and the almost immediate agricultural land and sparse communities to the west. The fact that Aurora represents the last exit off of Interstate 88 for a number of miles is telling of this transition, and it raises the question of whether or not there will be further development to the west.

It is possible to continue this low-density development, though the real estate collapse of 2008 has slowed much of this. There is a great deal of opportunity within areas such as the Aurora-Batavia study region to promote development that does not simply carve out more agricultural or preserve land. In fact, with the expanses of parking and transportation infrastructure already in place, there are opportunities to create communities within these existing commercial districts. Such solutions will be further explored in Chapter 5.

With former industrial sites also prevalent within this study-region, there is additional space, in unique locations, for this community redevelopment. Some has already taken place, but more extensive steps could and should be taken to finish the process.

Image – Shutter

It was supposedly going to be the largest cheese and beer selections I had ever seen in a grocery store. And Woodman's was indeed massively impressive, with just about every consumable product I had ever heard of present, and ten times that number I had not. It was a kind of consumer paradise, as though manna came not from heaven, but from an intermodal facility and the massive freight docks behind the building.

What struck me more was the flat horizon on all sides. The corn in the surrounding fields had already been harvested, and it seemed like I could see west all the way to Iowa. The land was flat, the sky was blue, the air unseasonably (though in the future, perhaps not) warm. I felt like a suburban imitation of a pioneer.

For a kid who grew up in the suburbs closer in to Chicago, being this far out was a different feeling, like a cross between a hopefulness of a non-industrial urbanized world and fear of leaving some idea of civilization behind. Though with a facility like Woodman's at my back, perhaps I never had to fear any sign of civilization being all that far away. And further west, there would be more places to stop: in Dekalb, in Iowa, in Colorado, at the beach along the Pacific Ocean. Sitting in this parking lot on this bright blue day, I remembered that while we can be desolate, it's hard to really be all that far away anymore.

Dekalb

Image – Iris

What is most striking about Interstate 88 west of Aurora is this oasis that comes up from the uninterrupted highway, what looks like a construction of civilization standing up out of the cornfields. Passing over other Interstate highways in the Chicago city-region are oases, complexes that offer food and relaxation to drivers on the road for an extended time. Their fare is repetitive, with Sbarro, Starbucks, and Panda Express seeming to be at every location, with McDonald's and Subway not far behind. I rarely go to them.

Out here, however, a similar construction is not filled with food. Instead, this is a toll collection point for the Illinois Tollway, a collection of buildings springing forth from agriculture specifically to collect money from passing motorists.

It seems an odd reason to build here.

Orientation & Observation

The Dekalb study region is one more of convenience rather than one of geographic cohesion. In fact, this region, extending from west of Aurora to Interstate 39, is as long as the distance from Oak Brook to Aurora. This part of the study region also has relatively few access points along Interstate 88, as well as few communities directly along the highway itself. Communities included in this study region are Dekalb, Maple Park, Cortland, Elva, Malta, Creston, and Rochelle. Of these, only Dekalb is a major settlement, with some

of the elements of a information-era city-region present. As such, this portion will discuss Dekalb first which is in the middle of the study region, following on with the remaining communities, from east nearest to Aurora to west nearest to and along Interstate 39.

Dekalb, by comparison to the other communities so far discussed along Interstate 88, is a relatively small community. With a population just over 45,000 (cityofdekalb.com), Dekalb is set off to the north of Interstate 88, with access points at Peace Road to the east of town and Annie Glidden Road to the west. The latter is also the major access point for Northern Illinois University, a university featuring approximately 23,000 students and 63 majors, as well as a large graduate program (niu.edu). This creates a secondary core on the western side of Dekalb, with Annie Glidden and Lincoln Highway forming the main confluence of structures. But neither Peace nor Annie Glidden is a major thoroughfare through the traditional downtown of Dekalb, though they do generally form a good border to consider Dekalb. They also filter traffic around town based on life pattern needs. Additionally, the community of Sycamore acts as a kind of suburb to Dekalb.

Peace Road extends briefly to the south of Interstate 88, ending shortly at an intersection with agricultural land on all sides. To the north, the agricultural nature of the area continues for a distance; this is interrupted by a different kind of agriculture: a greenhouse complex at the intersection with Lincoln Highway, the major east-west thoroughfare. By the time Peace crosses

Pleasant Street, the sporadic light commercial has gone from being agricultural service to general small business commercial, both service and retail. To the east on Pleasant is Dekalb Taylor Municipal Airport, a small regional airport with both public and private facilities (cityofdekalb.com). Peace Road then banks slightly east, away from town, and through more agricultural land until the intersection with Bethany Road, about three miles north of Lincoln Highway. At this point, Peace Road passes through some of the outlying neighbourhoods of Sycamore, with newer-style residential development with limited access points on both sides of the road. North of Dekalb Avenue, a curving road through the area, Peace Road again is surrounded by agricultural land. It then curves east on the north side of Sycamore, becoming Plank Road, passing through the community of Burlington, and eventually ending on the western edge of distant Elgin.

Illinois 23 is the next major north-south thoroughfare west of Peace Road; it extends some way to the south, to the intersection with U.S. 34, where Illinois 23 then joins 34 and continues to the southwest. Just south of the Interstate, Illinois 23 forms the eastern border of a small commercial/industrial park, some of it still interspersed with agriculture. While 23 does not intersect with Interstate 88, it does pass over the Interstate, extending north as 4th Street through the older parts of Dekalb. Just north of Interstate 88, Illinois 23 is already in the midst of low-density residential development, at first of the newer, limited-access style, though quickly the familiar grid pattern is

developed. Here there are familiar old neighbourhood scenes, including a middle school and some commercial-retail structures at intersections. This general pattern continues north until Lincoln Highway, by which point downtown Dekalb is established. Mirroring Aurora though on a smaller scale (and without the river aspect), downtown Dekalb features an array of commercial structures, municipal structures, and former industrial sites along the railroad line. North of downtown, Illinois 23 becomes Sycamore Road, curves to the northeast, and features limited-access newer-style residential development for a couple of miles. Beyond this point, big box retail development, as well as several strip mall-style commercial-retail structures, dominates the landscape. When viewed from satellite imagery, in fact, the parking lots for these facilities stand out rather starkly as a sea of grey. Illinois 23 then intersects with the aforementioned Peace Road near Sycamore, continuing through that community as well. Passing from newer-style residential to older-style, 23 is then intermixed in downtown Sycamore.

1st Street is about half a mile west of Illinois 23, and it forms the western edge of the industrial/commercial park south of Interstate 88 as discussed with 23. 1st Street rather anonymously ends in the tiny hamlet of McGirr well to the south, though north of the aforementioned U.S. 34. North of Interstate 88, 1st Street angles slightly, decreasing the separation with Illinois 23 approaching downtown. The progression for 1st Street is remarkably similar to Illinois 23 (also known as 4th Street through downtown), from a small piece of newer-style

residential, to a cemetery and a park, to the familiar grid development of older residential development. 1st Street largely forms the western boundary of downtown, and it isn't until the train tracks that form an integral part of downtown that 1st Street becomes primarily commercial and industrial. Further north of downtown, 1st Street passes through medium-aged residential developments, ones that maintain a kind of undulating grid pattern. North of here, and out of the study region, 1st Street alternates between newer-style limited-access residential developments and agricultural space. 1st Street continues north, through the communities of Five Points and Kingston, ending near the community of Colvin Park.

Annie Glidden Road is the major road furthest west for Dekalb, though what is unusual about it is that there is still major development to its west. Annie Glidden begins at Interstate 88, providing easy access to the University campus from the Interstate, implying a primary purpose. In fact, there is a sign on the Interstate itself when heading west, east of Peace Road, instructing drivers which exit to take for Northern Illinois University. To the north, this route continues simply as Glidden, ending just north of Colvin Park, not far from the northern terminus of 1st Street. North of Interstate 88, Annie Glidden is the site of additional development, with residential subdivisions being carved out of the farmland. This means that these developments are not continuous, however, with limited access and a concentration of traffic flow on Annie Glidden itself. This pattern continues north, past more residential developments

and Prairie Park, to the intersection with Lincoln Highway. Here is a major commercial intersection, providing most of the smaller-scale commercial-retail needs for students, including copious fast food locations. Annie Glidden then bisects the campus, both academic buildings and numerous housing complexes. Many of these are of the apartment variety, but they also maintain the curved-road limited-access nature of similar single-family dwellings. North of this housing is the Dekalb Police Station, and then agricultural land returns on both sides.

The major east-west thoroughfare through Dekalb is Lincoln Highway, extending east not only through the Fox Valley community of Geneva, but also as Roosevelt Road east, through the heart of Chicago, right to the intersection with the famous Field Museum. The westward extension is not nearly so dramatic, ending just west of Interstate 39 in Rochelle. Through Dekalb, Lincoln Highway skirts the airport, running about a mile south of it, forming the intersection with Peace Road at which the greenhouse facility exists, as previously mentioned. Crossing the railroad line that spurs off from the east-west main line to the north, Lincoln becomes a thoroughfare with grid-style residential to the south and light commercial and high-density residential to the north. After the intersection with 1st Street, Lincoln Highway parallels the main line railroad tracks (it crosses them in the midst of downtown), with some low-density residential construction – heavily wooded, incidentally – before giving way to a major commercial intersection with Annie Glidden Road. Here, the

impact of Northern Illinois University is very strongly felt, with the University and some strip-mall commercial structures to the north. To the south is a collection of newer-style limited-access residential construction, though with the railroad tracks in between, there are no points of access to Lincoln Highway. West of the University, the landscape immediately reverts to agricultural.

Many of the other communities in the Dekalb study region feature as connected to Lincoln Highway or the railroad tracks or both through the region, highlighting the disconnect to Interstate 88 itself. Maple Park features a small downtown along the railroad tracks, yet also shows some newer-style residential development both to the south and the southwest of downtown. This is especially true along Lincoln Highway. While the scale of the overall development is small, it is interesting to note the transition of development from along the rail line (along which there is plenty of additional room to develop) to the road connection of Lincoln Highway and its direct connections both west and east.

The community of Cortland, immediately east of Dekalb, is similar, though more developed due to its closer proximity to the larger community. Along the rail line, an older downtown is surrounded by residential developments on both sides of the tracks. To the south, along Somonauk Road, this grid pattern continues to Lincoln Highway, including an elementary school and some light commercial-retail. To the west, along Lincoln Highway, there are some commercial-service and light industrial facilities, seemingly outsized for

Cortland, shows how the proximity to Dekalb has been beneficial to the community. The residential development to the north of Cortland shows this desirable location as well, with newer-style limited-access residential development continuing all the way to the border of the property of Dekalb Taylor Municipal Airport.

The tiny settlement of Elva stands in contrast to the locations along the rail line or Lincoln Highway. With only a few structures, Elva is more of a rail service station than a community. In fact, there are less than two-dozen total structures in view, and several of them are industrial-agricultural in nature. Elva is more of a depot than it is a community in the sense of how we have considered them elsewhere in the study region. Yet, Elva also shows the tight connection between settlement and economic activity, and is an important baseline for how this functions beyond the strict confines of the denser city-region.

The community of Malta, too, appears to be a railroad town, though it developed much differently, with a grid-style residential development pattern on either side of the tracks. There are some light industrial structures on the south end of the track, including an agricultural complex, indicating perhaps the reason for Malta's existence. Lincoln Highway, on the north end of town, features some low-density commercial development, though the newer-style residential development seen in other parts of the study region and the Interstate 88 corridor is absent. To the east, in the midst of the agricultural

land, is an elementary school, while a small college is similarly carved out of the fields to the west.

Creston is a remarkably similar community to Malta, down to the type of agricultural facilities on the south side of the train tracks (though these facilities seem to be larger), and with the town centered on the tracks and Lincoln Highway forming a northern terminus. Here, Main and North Streets form the commercial core, with South Street connecting many of the residential neighbourhoods with the elementary school. Unlike Malta, however, the north end of town does not feature commercial structures, but rather some newer, even larger agricultural processing facilities. This highlights the extent to which intermodal transportation has seen truck traffic augment and in some places replace rail traffic, including in agriculture.

The community of Rochelle, just to the west of Interstate 39 and north of Interstate 88, is similarly positioned to Malta and Creston, though on a much larger scale. What is immediately notable, to the southwest of town, is the rail yard with an intermodal facility, providing easy interchange between rail and Interstate traffic in multiple directions. This, combined with the massive agricultural processing and industrial facilities around town, says more than the major thoroughfares about the way this community is structured. The downtown core is again centered on the rail line, with a grid development extending in all directions from there. Commercial and municipal structures give way to residential space, with parks, schools, and a hospital all intermixed. On

the eastern edge of town, industrial facilities form the majority of the landscape, while residential development is more extensive to the north, even giving way to some of the newer-style limited-access residential pattern. The density gets thinner the further north one travels, though there are developments continuing almost randomly carved out of farmland, partially framing Rochelle Township High School and a minor commercial development complex. To the northeast of the hospital, a big box-style commercial-retail outlet is also carved out of the farmland along Lincoln Highway. Where Lincoln Highway has an interchange with Interstate 39, there is a significant truck stop, a few fast food locations, and, as seems to be the pattern in this project, a quarry, marking the end of this research corridor. With three of the four end points for this research featuring some form of quarry, it makes me wonder what prospecting could be done in Oak Brook for mineral wealth.

The Dekalb study region is quite varied, with communities that hardly resemble each other still sharing some traits, all the while the Chicago city-region having less of at least an immediate reach, though the economic, social, political, and ecological reach of the city-region is surely still intermingled as far west as Rochelle.

Analysis – Challenges

The challenges that face this study region are largely contextual, dependent on what the development goals for this region and these

communities happen to be. It is simple to divide the communities present here into three categories: Dekalb, Rochelle, and everyone else.

Dekalb is well positioned in the information-era, with a major institution of higher education that serves as a magnet for economic, political, and social activity. With two access points to Interstate 88, it is well positioned as the only community west of Aurora and east of Interstate 39 to be so well connected. The only feature missing from a true global city economic situation is the financial institutions, something that is unlikely to need a location in Dekalb with Chicago so close nearby, as well as the larger suburbs of the city-region providing auxiliary locations. The question will become how Dekalb can manage the demand for development with the continuing national and international need for agricultural activity, and the processing that goes with that. In other words, identifying the growth ceiling for Dekalb will be an interesting project for Chapter 5, as Dekalb does not have the developed boundaries in place as seen in other parts of the Interstate 88 corridor.

Rochelle is well positioned as well, as it has access to Interstate highways in two directions, and many more easily accessed from those. In fact, Rochelle has relatively simple access, from Interstates 88 and 39, to Interstate 90, 80, 72, 74, and several others within a relatively short drive. This kind of crossroads, along with the rail line junction, makes Rochelle an important economic hub, and thus also a socially and politically influential place. The necessity for agricultural activity, and thus also agricultural hubs, ensures that

Rochelle at the very least has a good head start on other communities becoming so central, and in all practicality, ensures at least a minimum level of employment and service needs for the foreseeable future. Like Dekalb, and Peru/Mendota/Utica in the Interstate 80 corridor, Rochelle's boundaries are really ones based on the economic need for development and the political and social opinion of low-density development spreading outward from its core. There is no other major brake on the ability of further land to be developed, so observing Rochelle again in twenty years might be most interesting.

The other communities in this study region are distinct, with community pride and a variety of traits that make them unique. They are also very similar in that they are small, have apparently limited economic activity within the immediate community, and yet are stable in that they serve a stable economic activity: agriculture. The more interesting question within each community is to what extent Chicago, as a city-region, has an effect on the economic, social, and political activity, and what ecological effect does it all have? And if any of these effects are undesirable for these communities, what can they do about it?

Conclusion

Like the analogous study region in the Interstate 80 corridor, the Dekalb study region is basically a catch-all, a geographic convenience, but it also provides the space to see the effects a major global city-region has over distance. Dekalb is the regional center here, though for most of these communities, Chicago arguably has a larger effect. Rochelle is a kind of rural

community-region, acting as the analog of Chicago to suburbs as Rochelle to agricultural land, forming them into something of a community. And the surrounding agricultural settlements, especially those centered on a rail line, are in some ways connected, but in other ways exist in geographic isolation. Unlike Interstate 80, however, Interstate 88 has remarkably little access: west of Orchard Road in Aurora, there is on-ramp only access at Illinois 47, the two interchanges at Dekalb, and then an oasis with a gas station and food facilities – though no access to the surrounding land or roads – until Interstate 39. Perhaps the biggest challenge of all for the communities in this area is gaining access to the opportunities and development challenges that come with connecting more directly to the Interstate system.

Image – Shutter

The image I remember most clearly was perhaps the most poignant during the hundreds and hundreds (and hundreds) of miles I have driven while conducting this research. It was near Interstate 88's interchange with Interstate 39, where part of a windpower park can be seen all across the horizon. Every couple of miles, I pass an old windmill, the kind that was used to pump water for most of the last 150 years, usually broken, with blades missing from the fan and in some state of disrepair. At the same time, there is frantic development in the background, assembling more windpower units every year.

So at the conclusion of the field work, it seemed an appropriate thought to realize that, in many ways, we are back where we started, harnessing what

we have directly from the natural world to make our life patterns easier. As we will discover in Chapter 5, the promise of biophilic design is great, and not only to honour the ecological imperative. These blades, spinning silently all across the horizon, give us a glimpse of reimagining how we build, how we develop. How we live.

Conclusions

As seen through a retrospective of both of these research corridors, Interstate 88 is distinct from Interstate 80, but not simply in a socioeconomic way. The development history has been notably different, and the nature of the corridor itself, and its connectivity, makes a great deal of difference.

From an observational standpoint, the communities along the Interstate 88 corridor have a healthier economic climate. There are no analogs to Oak Brook or Naperville in the Interstate 80 corridor, and the fact that this corridor has developed after the period of major industrial activity means that the infrastructure is setup for an information-era economy. This means that there is a great deal of infrastructure that is appropriate for the current economic, social, and political needs, but there are also some obvious ecological concerns, as well as long-term economic, social, and political issues that will need to be addressed, particularly in the area of low-density development and access.

This can be seen in the eastern half of Interstate 88, where low-density commercial and residential development has created new areas of traffic

emphasis, as well as the extremely limited access to the Interstate along the western half of the corridor. These issues, and their relationship to the four imperatives, will be the focus for development and redevelopment goals in the future, as will be explored in Chapter 5, when proposing solutions and identifying what must change.

Interstate 88 offers a welcome contrast to Interstate 80's development, with an additional four distinct study regions, providing eight total regions, each with distinct sites and relationship to the larger city-region. In addition to being diverse for the purpose of applying the imperatives and what they suggest for future development in a humanistically responsible manner, this broad range highlights one of the main problems and opportunities for development decisions: that the interconnectivity of sites, neighbourhoods, communities, and the larger city-region are complex and involve multiple stakeholders. In order to provide proper development that honours the imperatives and fits each of these scopes, it is essential to fundamentally rethink the idea of the site and who is responsible or in a position to make decisions on development.

Chapter Five – Recommendations for Remediation

“Will we ever drag our visiting relatives out to show off our Edge City, our shining city on the hill?” – Joel Garreau, *Edge City*

The nature of the built environment is to be in a state of change, in flux, being pulled in directions literal and figurative by a variety of imperatives: the imperatives we have discussed as guiding the form of good development. Long-term economic, social, political, and ecological imperatives should be considered – and considered carefully – in order for the built environment to become successful, a community, participatory, and healthy and sustainable.

The long-term economic imperative is driven by an acknowledgement that the landscape, and any given place, can be viewed as being part of any variety of purposes. As such, the physical land of the community is enframed (in Heidegger’s term) by different elements within the community with varying goals and desired outcomes. This will prove to be of exceptional significance at the end of this chapter, when discussing proposed universal solutions for healthy, productive, sustainable future development. To honour the long-term economic imperative is to be forward-thinking enough to see the relative benefits of competing claims to the same land, and to determine which is in the economic best interests of a community. A brief hypothetical for such an arrangement might be to consider a community that sustains itself based on

tourism. Supposing some mineral wealth is discovered on the same land, a decision must be made of what is the most appropriate use for that land.

Honouring the long-term economic imperative would be to balance these two proposed uses for the same space and determine which would be in the best long-term interest of the community. Again, with this being a simplified example, it is not taking into account secondary economic opportunities or the overlapping uses that are possible. But even as an either/or possibility, the question of which path would serve the community best is one that should be considered. This gets into some property rights issues, of course, which this project will not and is not designed to handle. The idea that the community should have input on how individual sites are developed, however, is very much in line with honouring the long-term economic imperative.

This is complicated, however, by the rise of the global city in place of the industrial city. This rise must be understood both for the prominence certain urban areas take, but also for the changes that are evident in all urban and rural development. For a set of core cities, the rise of the information economy has meant an interconnected network of prominent financial centers has formed a new global backbone. Sassen notes how this shift began with the decline of the industrial centers of many of the traditional first world powers (3), and Friedmann follows this up by asserting that New York, London, and Tokyo form a kind of first-tier of global cities, subject to change over time, with secondary locations including Frankfurt and, importantly, Chicago forming a secondary

network of global cities (38). These locations are centered on financial transactions (for example the prominent Chicago Board Options Exchange), and also feature tourism and education as economic engines. As a result, there is a high proportion of support services required, thus forming the backbone of the information economy. This shift is significant for a city like Chicago, as it was an industrial and transportation powerhouse throughout most of its history; it is, in fact, that transportation history that is at least partially responsible for the rise of the financial institutions and tourism trade that make Chicago a part of the global city network. The movement to this information economy has been significant for all facets of development, however. As the type of work being performed is no longer tied directly to a specific place, but rather should be considered as in relation to other services and opportunities present, development does not need to be as dense as it once was. As a result, the predominant form of site development and redevelopment has taken on the global city's ability to be relatively low-density. This, combined with the rise of mono-zoning development and the global city-era desire to be on the periphery if possible, has resulted in low-density development along the edges of most cities, regardless of their place on the global city spectrum. Having occurred precisely during the de-industrialization of the American city, this cannot be anything other than an information economy phenomenon. The concern with this direction from a long-term economic perspective comes from time and resource consumption. The more different resources are isolated from each

other through low-density development, the more expenditure is required to complete the same work.

The humanistic origins of the social imperative are then drawn from a similar space: just as the economic imperative is informed by overlapping interactions based on use of land for commerce, the social imperative is expressed through the overlapping of cultures and cultural practices that comprise the life-patterns of citizens. As such, the social imperative is created by the citizens that are present, unlike the economic imperative, which tends to be a larger driver of population growth or decline. The social imperative is also very concerned with the concept of the present tense and how current citizen needs are being met and how their life patterns can be completed. Measuring the social imperative is a qualitative affair, and one that also underlines the importance of the universal solutions proposed after the study region-specific solutions following this section. After considering these study regions, we might think of the social imperative as the ability of citizens to navigate their daily life patterns with minimal difficulty, and the opportunities presented by these life patterns overlapping for citizen interaction. In order to visualize this within the context of the study regions already examined, consider the shopping centers that are part of the mono-zoning style of development (the Aurora/Naperville boundary development is a particularly sharp example). The prime opportunities for social interaction within these commercial areas are largely co-opted by automobile usage, something that separates individuals from

interacting. Additionally, making these areas difficult to access via any transportation besides the automobile makes for additional separation of life patterns. Honouring the social imperative means honouring cultural practices and promoting overlapping of life patterns to generate interaction and a sense of community cohesiveness. The study regions highlighted, if nothing else, how low-density growth relies on automobile transportation rather than being transit neutral, and mono-zoning development hinder the kind of overlapping life patterns necessary for interaction and cultural exchange within the community. Honouring the social imperative also means providing the opportunity for action.

The political imperative, to borrow the language of Arendt, is about the ability of citizens to engage in action. This stands in opposition to work and labour, the other types of human activity that Arendt notes, and activities that are addressed by other imperatives. The opportunity for action is dependent upon the overlapping life patterns from the social imperative, setting up the opportunity for action in addition to work and labour. As discussed in the first chapter, with action being political action, the distinction between action and work and labour is vital, as otherwise every act would be viewed as political. Commercial and industrial activity is, however, inherently work and/or labour depending on the position in the transaction a given citizen takes. Therefore, the points in life patterns that are action must also be moments that provide for interactivity. To put this into a generic context with respect to this project, it becomes critical to look at the modern form of the subdivision, where there are

few points of access and few roads that are straight and form conventional intersections. This, combined with a lack of mixed-use zoning present in the modern suburb, means that opportunities for interaction are relatively limited, as citizens are much more likely to opt for automobile transportation to get where they need to be, and their immediate neighbours are constricted by the shape of the subdivision. This then reduces action as something political, meaning that the effective voice of the citizen is reduced, a key indicator that the political imperative is not being honoured. In order to honour this imperative, it is essential that citizens maintain their ability to speak and act – in Arendt's usage – with a community around them of equally empowered citizens. To do so in the built environment is to not isolate citizens from other citizens in enclaves with mono-zoning.

The ecological imperative comes from a broad base of literature, but for the humanities, it originates in Heidegger's concept of standing reserve, finding practice in the work of Cronon amongst others. The ecological imperative does strive to preserve, though it is preservation with a human vision rather than a claim to ecological preservation for its own sake. In short, it is in our own interest to preserve those resources around us that bring us health. This means that the ecological imperative acts as a brake on the economic imperative: while considering the economic imperative and competing uses for resources, the ecological imperative is a reminder of those resources that are required for sustaining the community. The ecological imperative also suggests methods for

development, with materials and building practices available that make individual sites more sustainable and energy/resource efficient. Between sites, the landscape can be developed in a way that more intelligently incorporates individual life patterns in such a way that reduces the need for transportation, makes transportation more efficient, and thus uses fewer resources. Generically speaking, this would require a great deal of retrofitting within almost all of the study regions; however, by increasing the density of development – and thus, ideally, reducing the resources required to travel between zones – there is the opportunity to take the major retail developments and remake them in such a way where they are more transportation neutral. In addition, placing small commercial developments within existing residential enclaves would help to reduce the resource consumption from transportation, in addition to assisting the goals of the social and political imperatives.

Together, these four imperatives form a powerful suggestion for how development form should take place. They should be viewed as in harmony with one another, as each is necessary for a healthy, productive, sustainable community. As such, they are inherently humanistic, interested as they are in the human condition and the requirements for effective community life. Their core principles are based in philosophy and rhetoric, and their measurement in this project is qualitative from observation. They are also a first step towards the work of other fields in their implementation. Most importantly, these imperatives do not make claims to economic or governmental hegemony, but

rather are a proposition for building individual communities for citizens, acknowledging local control and participatory government. This is because a healthy, productive, sustainable community is at its core the physical form of living that is most in line with the historical products of humanities scholarship. It is an ideal to which to strive, and an ideal that can be transformed into blueprints for redeveloping retrofitting our existing industrial and global cities.

With this humanistic base for these imperatives, they can then be applied within the scope of this study to the study regions explored in Chapters 3 & 4. The purpose of this chapter is then to consider the imperatives in context with the study regions, taking each in turn, considering how they are or are not being met, and what steps could be considered in the future to meet these goals. This is then the point where other fields would be better equipped for implementation and technical details.

The structure here will be to consider each imperative in each study region, resulting in 32 sections to this chapter. In addition, after considering this application, some universal proposals based in a humanistic perspective and in light of the production of this study will be offered. These proposals honour all of the imperatives and attempt to develop institutions whereby good development is more likely to flourish.

This chapter represents, too, the culmination of a year's writing, three years of research, and a decade of interest and reading. It is inherently interdisciplinary, and is written in the hope of continuing the conversation in a

way that is productive, beneficial, and sustainable, just as our communities should be.

Interstate 80

Thornton Study Region

The issues facing the Thornton study region touch on all of the imperatives we have at hand. Indeed, Thornton is ideally located to take advantage of all four, but is lacking in each department at present. Addressing each in turn, it becomes concrete how these imperatives are reliant upon one another and combine to build a healthy, productive, sustainable community.

Economic Imperative

The signs of the Thornton region's primary economic activity are not hard to see: even putting the Thornton Quarry aside, the industrial processing facilities and rail and highway networks surrounding the area point to a heavily industrial past and present. How can we approach this community for the goal of a healthy long-term economic future?

The first step is to take advantage of the transportation position of the Thornton study region; with multiple Interstate highways and close access to the rest of the Chicago city-region, it makes sense for there to be warehousing and distribution opportunities here. While these opportunities are somewhat disrupted by the disjointed and disconnected nature of the road system – especially in the immediate vicinity to the quarry – and the way Interstate 80 separates the dense industrial areas along the Calumet River to the north from

the more sparse and large-scale industrial sites to the south, creating these connections is vital for a long-term solution to extraction and decaying industry as the main local sources of economic activity. In particular, transportation connections to the south need to be strengthened.

The next step is to find the type of economic activity that is sustainable in the long-term for this region. Extraction industries have proven to be long-term sustainable for this area for more than a century, but available space to expand this activity is simply unavailable without the acquisition of a considerable amount of already-developed land. It is more likely, with several educational institutions in the area (South Suburban College, Prairie State College, Governors State University and Chicago State University are relatively nearby), that the attraction of businesses interested in having a professional relationship with college students (as interns, for co-ops, as employees, etc.) is a positive proposition. The attraction of faculty, staff, and administration to make these areas a community with a more vested interest in educational activity also has the potential to be very positive. Finally, the variety of industrial, agricultural, transportation, and other economic activity happening within the study region provides a great deal of opportunity for education institutions to funnel programs toward direct application and form partnerships with area businesses, thus benefitting all parties involved.

These steps would require a great deal of specialized work, and so with the recommendations throughout this chapter, they are proposals, not concrete

steps that can be taken. There is an exceptional amount of interdisciplinarity that must occur to move these imperatives forward, and the long-term economic imperative for the Thornton study region is quite indicative of this. Steps must be taken to catch up with the realities of the global city-region and the information economy, and the steps suggested here are in line with the principles laid out by Sassen and Friedmann. Additionally, the consideration of the best use of available land and how it is constrained by the uses of surrounding land gets into a long discussion about enframing and standing reserve, the Heideggerian roots of humanism in the long-term economic imperative and defining place in general. It is in the best interests of the region for long-term economic stability to redevelop in a way that predicts the global city-region growth rather than to try to revive or recapture an industrial era mindset.

Social Imperative

Much as the disjointed nature of the smaller-scale transportation network in the Thornton study region influences the economic development of the region, so too does this disjointed development influence the health of the social imperative as well. Neighbourhoods are frequently disconnected from one another, and this means that life patterns have a difficult time overlapping to create opportunities for interaction. In this region, though, we also can see some ideas for redevelopment in a way that draws citizens together for interaction and how this may be applied with larger-scale concepts.

What need to develop to honour the social imperative in this study region are the facilities to foster interactivity throughout the course of daily life patterns. The Country Club Hills Theater is an example of how to redevelop an existing commercial site into a new space that can encourage interaction. Yet, this is only a first step, as it surely is not open every evening, and is not a site that can be used throughout the rest of the day. Adding an open-air market adjacent to it, for example, would make for additional interaction possibilities. Additional facilities can create a critical mass of activity to create the kind of vibrant neighbourhood activity necessary to really honour the social imperative. This can also reduce automobile use a bit by clustering needs together in one place.

Given the relatively isolated and intermittent nature of these small communities, the pattern suggested above would need to be repeated several times over to create a similar pattern of interactivity multiple times. Redeveloping existing commercial structures is the path with the least hurdles considering, as was noted in Chapter 3, there are several empty such structures available. A further step would be to work on the traffic flow throughout most of the study region, trying to find more continuity to make more areas accessible.

What the social imperative in this study region comes down to is strong institutions, community investment, and wise development alongside new ideas for long-term economic stability. This is an area that should be revisited once

more economic adjustments have been made, though an initial step of getting out of common contemporary modes of development would be a good start. Getting away from low-density commercial and limited-access residential development will mean less remediation that will have to occur later. At this point, the social imperative means making adjustments where possible to overlap life patterns and taking the available opportunities as the economic imperative develops to make smart zoning and development decisions. More on this will be discussed towards the end of the chapter.

Political Imperative

Following on from the social imperative, the ability for citizens to engage in action beyond work and labour is of critical importance of community agency. The basic problem with the Thornton study region for the political imperative is the relatively small community structures present. As a result, unlike in most of the other study regions, there is relatively little political power present, with more influence residing with the Cook County Board. The Board is, of course, concerned with matters far beyond just this region. Perhaps one way to develop a more powerful political voice from a municipal perspective would be to combine some municipal governments together.

The danger in such a move is, of course, lessening the voice of the individual citizen. What should go hand in hand with amplifying the municipal voice in an attempt to attract development/redevelopment and citizens is promoting the opportunity for citizens to engage in action, to make certain that

they are part of the direction of the community and the study region. Alongside the social imperative of overlapping life patterns following economic activity, the political imperative requires proper development that engages citizens together, and for that development must take a pattern that minimizes isolation and encourages action.

As an example, placing a school and a library adjacent to the earlier-mentioned open market and Theater might go some way to bringing citizens together in a place where action is possible. Incorporating municipal gatherings and broadly advertising planning and local government opportunities seems necessary, and involving the citizenry from a younger age into the decision-making process is crucial, especially alongside the proposed development of education in this study region. Also, the second of the proposed universal solutions towards the end of this chapter would be especially applicable to the political imperative in this study region.

Ecological Imperative

The long-term ecological health of this study region is really a matter of what will be done for redevelopment and how to work around large-scale industrial incursions. The Thornton Quarry has already been partially repurposed into part of the Chicago Deep Tunnel project, acting as a reservoir for excess storm water. It is serving a regional purpose in this sense without the expense of a massive redevelopment that must be undertaken locally.

Of immediate concern is how to redevelop in order to remediate the dependence on automobiles that is present in some of this study region, particularly along Halsted and Cicero Avenues. Here there are large commercial structures with commensurately large parking facilities. An immediate suggestion would be, along with overhauling the public transportation system along these corridors, to redevelop the parking lots into mixed-use zoning, featuring service commercial and ample residential development. Ideally, such development would provide a vibrant community for employees to live, as well as make the life patterns for residents much simpler. An adequate public transit system would also bring in citizens from surrounding neighbourhoods as well, making these, rather than paragons of commercial excess and personal transportation, vibrant communities that become social centers and provide a setting for life pattern interaction and action in the political imperative sense. This is a template that could be replicated throughout this project, as we will see, and also as a model for how to redevelop commercial spaces to be less automobile-dependent and more healthy for the community.

There are also two types of standing reserve, to use Heidegger's term, within the Thornton study region: the forest preserves, and the undeveloped agricultural land to the south of the main study region. The former is good to keep in place, as it provides land for overlapping needs of undeveloped space. It is, of course, human space, as Cronon et al more than adequately demonstrated in Chapter 1. Keeping this in place is an important mindset, as it

is the first step to putting a brake on expansionary development and provides impetus for examining redevelopment options. The agricultural land to the south, too, is similar, though it too should not be regarded as “natural.” Rather, it is space that is being put to use, and discouraging its urbanization is an opportunity to reexamine how to use existing space. Doing so is an important step in reigning in low-density development that is ineffective, and recreating space and place in a way that is inclusionary. This is the best path for a healthy, productive, sustainable community.

Conclusions

The Thornton study region’s specific challenges revolve around taking space that is already developed for one purpose and redeveloping it to fit the contemporary economic model in a way that is socially and politically healthy and ecologically sensible. The decisions made here can be a model for future development in other regions, though they need to be inclusive decisions that honour the cultural practices in place and are ecologically intelligent, avoiding future incursions in extraction industries and unnecessary transportation infrastructure. The biggest hurdles will be in developing the political will to undertake such changes now and in the future, and in cultivating the sense of community in redeveloped commercial space in order to give citizens agency over their lives rather than feeling decisions are made far away from them. It is a task that calls on many fields, many agencies, and many, many citizens to get involved and stay involved.

Bremen Study Region

The Bremen study region is dominated by Tinley Park and its position along Interstate 80, though the significance of the proposed remediation and redevelopment for this study region is that it applies across a broad spectrum of urban boundary areas, and acts as a cautionary tale for other communities interested in future development, considering the perils of low-density development for a traditional community. Even though a great deal of the development in this region has occurred relatively recently, there are still opportunities to redevelop and remediate existing plans to honour the imperatives and promote a healthy, productive, sustainable community.

Economic Imperative

The Bremen study region in general, and Tinley Park in particular, has done a great deal to promote growth in recent decades. With greatly expanded territory and the attraction of new businesses thanks in part to Interstate 80 running through the community, the axis of the community has slowly but surely shifted south from the traditional center along Oak Park Avenue in Tinley Park. It is laudable that the community has been interested in growth and self-betterment, but some steps need to be taken to avoid the pitfalls of mono-zoning and low-density development.

This study region has several examples of good economic development, including the Oak Park Avenue corridor and 183rd Street. Here the buildings are

zoned for mixed use, with commercial-retail first floors and residential spaces above. Parking lots are relatively limited along Oak Park Avenue, though they remain a fixture along 183rd Street. This is good consideration of space, as enframing an open field as densely developed property has not been an easy transition on the urban fringes. Indeed, 159th Street and Harlem Avenue are examples of the opposite approach.

Much of Tinley Park's economic development relies on employment placed in other communities throughout the Chicago city-region. The commercial development within the village's boundaries, and also in the surrounding communities, mostly shows a reliance on automobile transportation, favouring large parking lots and low-density development. This is of concern if transportation costs continue to rise, threatening the position of Tinley Park and the Bremen study region if employment is not contained within the community, but rather is an expensive trek elsewhere. Given Tinley Park's favourable position along Interstate 80, and with extensive undeveloped land along the south side of Interstate 80, there is an opportunity to develop profitable, sustainable employment opportunities.

Before the real estate crash of 2008, development along the south side of Interstate 80 was progressing, mostly with speculative warehouse and office park developments, though a fair amount of the land was (and is) empty, as evidenced along the north side of 191st Street in Tinley Park and Mokena. It is imperative, as the economy recovers regionally and nationally, that this

development continues, providing opportunities for businesses to flourish within the community, meaning local employment and a need for support services that is indicative of global city-era economic growth. Additional development should be possible eastward towards Harlem Avenue and further east, as continuous access to Interstate 80, as well as the junction with Interstate 57 immediately east and Interstates 294 and 94 further on, means a variety of markets can be reached quickly and easily. It is in the Bremen study region's best interests to continue to cultivate this kind of economic activity in order to become the area node for the Chicago city-region that it is well positioned to become.

Social Imperative

The Bremen study region is in good shape to make minor changes and continue to cultivate overlapping life patterns, the kind of interconnectivity that is vital for cultural exchange and a vibrant community and community space. The grid structure in place throughout the study region means there are few isolated places contained therein, and that it should be feasible to create sectors that have amenities for citizens and opportunities for interaction, as well as making other sectors accessible from just about anywhere.

Most of the more established neighbourhoods within the Bremen study region feature residential streets with single-family housing, park space, (some have) a school, religious institutions, and some commercial-retail development at the corners of (relatively) major intersections. This means that citizens are likely to be able to move about their neighbourhood and interact with fellow

citizens without a direct need for an automobile. Ignoring the fact that travel via automobile is culturally ingrained to a certain degree, there is a great opportunity to make these communities further walkable and to overlap life patterns and cultural practices, further constraining the rate and volume of vehicle traffic.

Perhaps the best step that could be taken in the Bremen study region is to slow down vehicle traffic and keep roads to two-lane with a turning lane, rather than having relatively high speed limits (up to 50mph in places south along Harlem Avenue) and four lanes. In concert with the implementation of a more effective public transit system, this reduction in automobile traffic volume and speed instantly makes road crossings less intimidating, and provides the opportunity for cultural practices so desired for the social imperative. Such steps are viable along Oak Park Avenue north of 167th Street (they are already in place south of 167th), Harlem Avenue from 183rd Street to 167th Street, 80th Avenue throughout, and 167th Street between Harlem Avenue and Cicero Avenue. For the time being, such redesign is not feasible along 159th Street or Harlem Avenue north of 167th Street, as the volume of traffic created by the big box and strip mall retail developments would be immensely problematic. This too, though, has the opportunity for intelligent solutions.

As proposed for the Thornton study region, the redevelopment of the major parking lots for commercial-retail developments, particularly along 159th Street and Harlem Avenue, has the potential to redefine the concept of

neighbourhood, all the while kicking out the notion that such areas are automobile-only zones. A streetcar system for public transit becomes a likely option with the density of development, and parking structures on the periphery of the retail zone could keep valuable land from being taken up by asphalt. While this solution is complex (and more in the future than road modification), this model is not without precedent as noted in downtown Naperville in Chapter 4. The nature of the retail establishments involved makes this trickier, especially for grocery shopping, but while it may not be in the interest of the large grocery store, the question must be asked if, socially speaking, the corner market is a more sustainable alternative. This is a question this project is not going to attempt to answer.

Ultimately, honouring the social imperative is going to mean not only changes to major infrastructure, but also policies being implemented that encourage the overlapping of life patterns on a daily basis. While some of the proposals listed here may be a bit more radical, they are feasible if the public will is present to make them happen. The earlier proposal to reduce the speed and volume of traffic is acceptable due to the nearby access to multiple Interstate highways, with a great deal of the major commuting taking place on these arteries. The redevelopment of the major commercial districts, too, is beneficial, especially if it is done in a way that is attractive to citizens so that they may be more inclined to visit these establishments. If a community can turn parking and traffic space into community space that is valued, all will

benefit. This is a radical proposition, but one that will, if proven viable through interdisciplinary discussion, be very effective.

Political Imperative

As noted in the previous section, the neighbourhoods in the Bremen study region are already reasonably well organized into a grid system, one that makes for logical neighbourhood boundaries and, thus, a simple decision-making political structure. As will be noted at the end of this chapter, there are some decisions currently made by private entities that should become a matter of public debate; this neighbourhood structure in the Bremen study region already orients itself towards a kind of self-governance. Such a structure would be beneficial for promoting action and the goals of the social imperative simultaneously.

The goal of the political imperative, to encourage human action beyond just work and labour, aims in this built environment for the opportunity for citizen involvement in daily decisions and effective, accountable representation for matters that would be unruly for direct rule. Building on this with a neighbourhood network would be to setup a method for more complicated government not on wards, but on a neighbourhood grid basis. More direct citizen action can then be attained by organizing committees or boards that could form an expression of the goals of the neighbourhood and points that should be taken to the larger village board.

As an example in action, we can take the neighbourhood formed by the boundaries of 167th Street, 171st Street, Harlem Avenue, and Oak Park Avenue. At ½ mile per side, this neighbourhood is manageable. It is also a residential neighbourhood, with commercial interests on the periphery. This neighbourhood should have a say in affairs related to its commercial development (perhaps in pushing for redevelopment similar to downtown Naperville, with single story commercial structures steadily replaced by mixed-zoned multi-story structures) as well as in how traffic on its periphery should be handled. This is not to say that this neighbourhood should be able to make binding decisions (or not necessarily), but that, as a major stakeholder in the shape of this neighbourhood and local part of the community, it is imperative that their voices are heard.

This is not a cure-all, especially as not all neighbourhoods are clearly defined. The newer developments are conveniently carved, though they are really quite large; Brookside Glen extends as an almost continuous community for a mile or more on each side, with twisting roads throughout that make boundaries difficult or seemingly arbitrary. South of 171st Street, the quadrant between Oak Park Avenue and Harlem Avenue does not have an even breakup point, and it would be difficult, given the transition along the way from residential with some commercial to primarily commercial, municipal, and light industrial, that a citizen residing near 175th Street is in the same neighbourhood as one bordering 183rd. Still, if the borders can be equitably established, such a

system raises the possibility of more, and more direct, citizen action in everyday decisions, and better representation for all.

Ecological Imperative

For the Bremen study region, the ecological imperative works quite well with the other imperatives, suggesting ways to organize and develop better than the way it has been done to present. In addition to elaborating on the economic and social imperative suggestions, the ecological imperative also speaks to strengthening the node that Bremen could be, creating more of a sense of independence and a sustainable way forward.

In the economic imperative, we spoke of creating more independence for the Bremen study region, whereby more work is done locally, meaning less commuting and more attachment to place as community. In the social imperative, we reimagined the commercial-retail cluster at 159th and Harlem Avenue as a way to create more of a sense of belonging to a place and community involvement. For the ecological imperative, there is benefit in both of these moves: for the former, less commuting means conservation of energy and reduced traffic flow, resulting in (ideally) cleaner emissions and less wear and tear on the roads; for the latter, the clustering of residential and commercial-service and municipal structures alongside the existing commercial-retail conserves energy and makes the acquisition of goods and services more of a neighbourhood act than a commuting act. Additionally, the reclaiming of parking lots, which are considerable contributors to the heat island effect, as

greener space reduces solar absorption, as well as decreasing the need for cooling technology, which tends to be energy intensive.

Another recommendation that goes along with the ecological imperative is the implementation of supplemental renewable energy sources, such as wind, solar, and micro-hydro. With an ample wind supply and generally good solar radiation, both windmills and solar panels are good site-specific installations to reduce the need for outside power generation. Additionally, with several wetlands locations within the study region, and specifically ones that have controlled water flow, it becomes attractive to install micro-hydro generation where applicable to add power. While these are not intended to completely replace large-scale power generation, they can go a long way towards dependence and take some stress off of the overall grid despite the expansion that has occurred within the study region.

The ecological imperative here is really about consuming less as lower-density development has taken hold. This can be justified as saving resources and capital for other use or for preservation for a later decision, depending on whether or not such things are regarded as standing reserve or are enframed for other purposes. Looking forward, these prospects can also be beneficial for community health, disposable income, and overall social and political involvement in day-to-day life.

Conclusions

The Bremen study region is, by observation, prototypical of many urban edge developments, with an existing core nearly dwarfed by more recent residential and commercial growth. As such, the decisions made here can serve as a model for future development and redevelopment in a great variety of communities. While some of the ideas proposed here might seem like radical undertakings, incremental steps of implementation would point to the benefits of enacting them. Beginning with traffic management schemes and citizen representation, each step should be towards honouring the imperatives and doing what is best on a site, neighbourhood, region, and city-region level. This becomes more complicated when dealing with a more diverse study region, as is apparent further west.

New Lenox – Joliet Study region

Diversity and harmonizing communities with radically different histories and trajectories is the biggest challenge with the New Lenox-Joliet study region. The former is an old industrial city, whose *raison d'être* no longer matches its current configuration or the needs of the community. The latter is a former farming community that aimed big prior to the real estate collapse, and is left with many questions about the direction of its development and how some choices for public space were made. Together, they form a picture of a possible

future community, one that forms a symbiotic relationship and is realistic about the needs of its citizenry.

Economic Imperative

Like the other imperatives, the economic imperative faces split challenges between the communities of Joliet and New Lenox. The former has many of the industrial characteristics of the Thornton study region, while the latter exhibits more traits of the Bremen study region. Getting both of them economically healthy will require a combination of repeated steps and new, community-specific solutions.

Joliet's challenge is in figuring out how to take a full-on industrial city and reinvent it as a node within Chicago's city-region. This is challenging as Joliet was once free-standing and a major inland port. This legacy is visible along the riverbanks and the rail network throughout Joliet. How, then, does a city centered on large-scale economic activity reinvent itself to serve as part of a city-region node? For Joliet, part of that reinvention is already under way south of the city center, along Interstate 80. Combined with the possibilities of the city center itself, the economic activity along the highway means that there is a path forward and a future that can be, in the long-term, economically viable.

The development of speculative warehousing and distribution centers along Interstate 80 provides a reliable source of economic activity for Joliet. With its location at the intersection of Interstates 80 and 55, access to the center of Chicago, as well as continuous highway well south and across the

country east-west, Joliet is well positioned to be a central US warehouse for any number of fulfillment corporations. Some of these are already in place, and there is ample land available for further development.

The step that should be taken in order to make these sustainable for the city as a whole is to make these facilities easily accessible from the city center, creating a corridor of economic activity that aims to revitalize the city center itself. The city center would then be well positioned to act as an area of service and support businesses, while at the same time maintaining the current attempts to spur entertainment attractions and act as a regional commuter hub. With the commuter opportunities available at the terminus of two commuter lines, and with continued development of economic activity to the south along the Interstate, there is an opportunity to redevelop many of the downtown city center structures for additional residential space, while at the same time encouraging the commercial-retail support that would maintain a reasonably dense downtown population. Once this is established, there will surely be more work to do in site redevelopment, but the path towards long-term economic health will be a bit clearer.

New Lenox faces almost the opposite problem: the majority of its development, rather than being industrial and more than a century old, is no more than two decades old and tends to be towards commercial-retail space consisting of strip malls and big box-style development. The question for long-term economic health is in how a former farming-railroad community goes about

creating the proper atmosphere given the available resources and the development that has been undertaken. In addition, coordinating with Joliet would go a long way towards avoiding a replication of effort and creating an economic environment of mutual benefit.

This community was built around the agricultural needs for railroad, and eventually grew as it became more feasible to become a suburb rather than a free-standing community. Recent development of agricultural land into commercial-retail space has done more to increase traffic along the main arteries (remember from Chapter 3 that New Lenox is primarily an east-west oriented community) and make the community somewhat more automobile dependent. More on this will be discussed in the forthcoming imperative discussions for this portion of the study region. Using what has already been developed, there are opportunities to further the long-term economic imperative within New Lenox.

The parallel development of New Lenox along both Interstate 80 and the Rock Island railroad make the community ideally situated to take advantage of transportation, in both residential and commercial/industrial development. Given the additional proximity of New Lenox to the new interchange with Interstate 355, making the western suburbs accessible, New Lenox would be well served to be something of a bedroom community for the industrial and commercial development and regional municipal structures in neighbouring

Joliet. Additionally, the commercial development should be maintained in such a way where it is made accessible to surrounding communities.

Ultimately, it is important for both of these communities to stay within their capacity, as the former has so many sites that are abandoned from the industrial era, and the latter has grown in anticipation of population growth that has been stunted by economic realities. As Thornton needs to take advantage of its transportation proximity and Bremen needs to work on self-sufficiency, Joliet and New Lenox need to use their proximity to both transportation and each other to develop a node of cooperation, making smart use of available land and site redevelopment to make the most of their fortunate position with respect to transportation infrastructure. To do otherwise is to attempt to make these communities into something they are not, an effort that has shown itself from time to time through the lenses of the other imperatives.

Social Imperative

Much as it was the concern in the economic imperative, the shape of these two communities poses a problem for honouring the social imperative. For Joliet, these concerns lay with how existing space can still be an active forum for overlapping life patterns, while for New Lenox, the issue relates more to the chasm between the expectations of the municipality for citizen engagement and the reality on the ground for the most likely places for overlapping life patterns and citizen movement. Both have work to do, though neither has insurmountable challenges present.

Joliet's major issue is in revitalizing its downtown city center, taking the existing infrastructure and creating a place where not only do citizens interact, but there is also a variety of overlapping citizen needs, at different times, to create an overlapping of life patterns found in other places regarded as vibrant. Additionally, sites outside of the city center need to be accessible and integrated into everyday use.

The downtown city center sees regular daily use, with Joliet acting as the county seat of Will County. The courthouse and bureaucracy creates a weekday hive of activity that is an important base. Additionally, there is some nightlife as well, with the Rialto Square Theatre and Silver Cross Field regularly hosting events. What needs to be added to this is the residential population that will increase the demand for commercial activity. Having official sponsorship of city center events is a positive step, but having a community built-in, without a great deal of travel required, to populate these venues will go a long way to building a solid foundation for the city center.

Beyond the city center, Joliet has done a great deal to establish additional venues to draw in commercial opportunities. One of the most prominent of these is Chicagoland Speedway, a venue with occasional use yet with a large footprint. Other larger-scale commercial enterprises exist nearby, all south of Interstate 80, generally surrounded by agricultural land. Tying these spaces into everyday use is tricky, as the low-density style of development has made their relevance to the city core marginal. This is the danger on the very

periphery of the Chicago city-region, as the boundary pressures for developing further out are greatly reduced.

To the east and west, the development of residential neighbourhoods that are relatively isolated from one another is of a great deal of concern. By isolating these citizens from one another, the opportunity for overlapping life patterns is greatly reduced. Add to this the strip mall and big box-style commercial-retail development that is prevalent nearby to these residential developments, and the outcome is less citizen interaction and more time spent in automobiles and parking lots. A possible step in remediating this difficulty is to integrate some small-scale commercial-retail structures within these residential developments, while at the same time incorporating mixed-zoning structures into the existing commercial-retail structures in these strip mall and big box zones. Similar to the approaches adopted in the Bremen study region, redevelopment is a key, and not only for the social imperative.

New Lenox, by contrast, has attempted to create a separate place for citizen interaction, the Commons, separate from the already established places of interaction. The center of town had been the area surrounding the train station, where agricultural economic activity had taken place for more than a century. As the community developed over time, commercial-retail activity surrounded this area, alongside a two-lane highway that spans the country, and a high school nearby. The recent development in the village has meant planning for the future, and New Lenox anticipated continued future growth.

The Commons was then conceived to not only provide a civic venue featuring the public library, village hall, and fire/police station, but also a place with commercial-service structures and a village green with a pond, walking path, and outdoor amphitheatre. The potential here is pleasant, with ambient features like the satellite radio along the walking path, but the result is something of a showpiece for planners rather than a functional place for overlapping life patterns.

To be fair to the village, we cannot see the completion of their plan due to the real estate crash. Indeed, some of the structures surrounding the Commons are either paused in construction or still with signs saying "Coming Soon" on agricultural land. Rather than giving up on such carefully developed space, it would be in the village's best interest to attract as much additional activity in the surrounding space so that citizens have more reasons to use this space. With only one residential neighbourhood directly adjoining the Commons, it is necessary to perhaps add residential development, mixed with commercial zoning. Maintaining the importance of the portion of the village around the train station is important as well, as the village, by its shape, should have multiple nodes for gathering.

Ultimately, as will be explored in the political imperative, it is a matter of isolation versus interaction and the possibilities created therein that will determine the overall effectiveness of the redevelopment of this village. Like Joliet, New Lenox has the opportunity to reconsider how citizens use the

facilities present in the town, and to redevelop and remediate issues before further development occurs. Rather than ripping up mistakes of the past, it would be in the interest of both communities to coordinate their efforts and make every effort to encourage citizen interaction in daily life patterns.

Political Imperative

Despite their obvious differences, the biggest political imperative hurdles for Joliet and New Lenox are remarkably similar: it is a matter of citizen access. For the former, the fragmentation of communities through the closure of industrial facilities is a formidable challenge. For the latter, the nature and shape of new development is a much larger hurdle. Similar attempts at inclusion will prove fruitful in both communities.

Joliet's issue is one faced by many industrial cities across North America: what do you do when the scale for which a city has been built is no longer supported by the economic activity present? As mentioned earlier, Detroit's choice has been an attempt at contraction. For Joliet, with a reasonable probability of continued redevelopment in the face of merging with the greater Chicago city-region, the issue is more of preventing fragmentation of citizen interaction and the ability of citizens to adequately conduct action aside from work and labour. Tied in with the continuous corridors proposed for the long-term economic imperative, incorporating these communities through firm transportation links – preferably public – is an infrastructural step that is key to getting citizens into a common space. Continuing to develop the downtown city

center is additionally important, as, for civic purposes, this appears to be the center of the city. It is therefore vital to cultivate the institutions and opportunities for citizen action, both as a matter of everyday involvement in governance, and also to help steer the future direction of this city in transition.

New Lenox, by contrast, has removed the conceived political center of the community to the Commons, a place that is unconnected to the majority of the residential portions of the community. This is concerning, especially as, unlike the development of Tinley Park with multiple civic centers, New Lenox seems to have put all of their eggs in one basket with respect to where action may take place. Given the massive, multi-million dollar investment already made in the Commons site, the best approach forward for New Lenox to encourage citizen action would be to foster a multi-node network of civic institutions, as well as developing further reasons for citizen involvement in the Commons site. One potential way to accomplish this is to redevelop educational sites around the Commons, making it a more convenient stop for families. Also, integrating commercial and retail space together into buildings, alongside a permanent open-air marketplace and access to public transit to and from the site will bring it more in line with the goals New Lenox appears to be trying to achieve. What is essential, especially for a community that has so many new residential developments and thus new - and potentially disconnected from civic decisions - citizens, is to cultivate means for their wishes to be involved in

community decisions and the opportunity for action to be encouraged in multiple sites within the community.

What is clear is that both communities have the potential to either become or remain disjointed in citizen action, and that thoughtful steps should be taken to make decisions inclusive and promote platforms for citizen action on the community stage. These two communities should, in addition to the other imperatives, coordinate their steps to harmonize the political imperative, and consider what political elements can be shared to reduce duplication of effort and foster more of a symbiotic relationship between their respective governments.

Ecological Imperative

In this study region, the ecological imperative is complicated, as one community is in the midst of a decline in industry, resulting in a somewhat smaller ecological concern, while at the same time greatly increasing the volume of land developed aside from agricultural or preserve space. The real estate collapse of 2008, while causing economic hardships in the study region, also provides an opportunity to pause and reconsider the path of development to which both communities are dedicated.

Joliet's path of incorporating border land for residential and commercial or light industrial purposes has provided additional economic opportunities that take advantage of proximity to the Interstate highways nearby, something that old growth along the rail and river routes of the industrial era did a century and

a half prior to present. With regional rail conduits already established, it would seem to follow on to incorporate a streetcar system within the city center and radiating outwards along major roads. Not only would this reiterate the central nature of the downtown city center, but it would also keep down the need to retrofit additional structures for parking should the possible density of use develop given the scale of the buildings already present.

On the periphery, Joliet should very strongly consider adopting the suggestions for the 159th Street and Harlem Avenue intersection in the Bremen study region: rather than continuing to build outwards in a way that becomes increasingly automobile dependent, redevelop the parking lots into mixed-zoning territories that can become a community rather than solely a destination for commercial activity.

Finally, for Joliet, continuing to take steps to remediate the pollution from decades of industry for the area waterways is a positive step towards repurposing this space for a variety of overlapping uses. Shipping will continue to be a function, as barges still make use of the waterways and nearby processing facilities. But adding preserve concepts of keeping it a human space for leisure and reflection would raise the profile of the city and increase the desirability of rehabilitating Joliet into a prosperous city once again.

New Lenox has been on a sprawl spree in recent decades, something that manifested itself in limited-access residential enclaves and big box and strip mall-style commercial-retail development. As the community has been planning,

and continues to plan for, a dramatic increase in population, it would be in their best interest at this point to explore increasing site density rather than continuing the pattern of developing land in a leapfrog pattern and turning a high percentage of it into parking lots.

One example is at the east end of town, past Schoolhouse Road, where the new Target and strip malls are very automobile dependent and use acres and acres for parking lots. When demand begins to come back to the area, integrating a parking structure and out-buildings with first floor commercial-retail or service and the rest residential would help to increase the density, while at the same time requiring less travel for the use of these amenities. Establishing public space in the midst of this, as well as encouraging human-powered transportation around such sites will help to create the sense of community desired by the imperatives and at the same time creating an additional node within the community for desired remediation for the other imperatives.

Another example of this kind of redevelopment would be around the train station, with residential/commercial hybrid structures replacing single story lower-density structures. This would prove popular with commuters, as most of the amenities needed for everyday life could be concentrated in one place, also drastically reducing the use of personal transportation.

Towards the west end of town, the area around the Commons could also be similarly developed, avoiding the possibility that, were the Commons to

become a popular center for civic activity, the roads in the area would become overly congested and an undesired increase in automobile traffic could occur.

Linking such increasing density rather than increasing land development would have to be something akin to a streetcar system, running east-west along U.S. 30, to connect these mini-nodes together to create a cohesive sense of community. Unlike the development experienced by Tinley Park in all directions (thus making such a step unlikely to be effective), New Lenox, with a linear shape, has real potential to establish an effective network, and one that could be extended west into a merging with Joliet to create a more effective city-region node.

It should be noted at this point that, while these public transit suggestions are undoubtedly effective if (and this is a big if) they are adopted by citizens, their expense in implementation should not be overlooked. As such, how they are approached should be done with the utmost caution. But the benefits of reducing personal automobile traffic, decreasing pollution and increasing moments of interactivity between citizens whilst conducting their life patterns, cannot be overlooked.

The ecological imperative speaks to the permanence of communities, their ability to be settlements that meet the needs of citizens in the long-term, without becoming uninhabitable or unviable as human spaces. The steps suggested for the ecological imperative are a first step in that general direction, but also point to a philosophical move to create and develop community. This

would be where economic activity is honoured for long-term permanence, social activity is a benefit for the overlapping life patterns and the cultural practices and exchange thus entailed, political activity is typified by moments of citizen action and thus taking agency for the community, and ecological thinking is shown through citizen desire to be appropriate stewards of these communities so that they may be perpetuating places of health, productivity, and sustainability.

Conclusions

The New Lenox-Joliet study region is diverse, disjointed, and represents two remarkably different communities that find themselves growing together. The imperatives here suggest a great deal of cooperation, examination of shared economic opportunities, and the creation and maintenance of a sense of community identity. The develop of city-region nodes as major development points means that the established infrastructure of Joliet and the explosive growth of New Lenox could create a very potent combination, but only if the two communities establish collaborative efforts to build a joint future, something that is, at best, politically uncertain.

Morris-Ottawa-Utica Study Region

The remaining portion of the Interstate 80 corridor studied for this project is a kind of catch-all, with Morris, Ottawa, and Utica not really connected in any other sense than they are joined by the opportunities provided by the

Interstate. It seems that it would be difficult to regard the Morris-Ottawa-Utica corridor as anything useful for coming up with a cohesive plan. After all, the seventy-plus miles involved in this stretch hardly suggest a homogenous solution to development issues. Yet, their proximity to the Chicago city-region means that there are consistencies in their development patterns and their approaches to the imperatives that must be considered. Each has to make decisions about its future economic prospects, and then how to develop or redevelop land in response to these assessments.

Economic Imperative

The primary question for all three communities regarding the economic imperative is what the citizens want these communities to be, how connected to the Chicago city-region they wish to be, and what are the most likely sources of economic activity that will maintain the fabric of these communities.

For Morris, there is an issue of identity related to their position on the absolute periphery of the Chicago city-region. Prior to the real estate collapse in 2008, new subdivisions were under construction along the corridor along Interstate 80, with the possibility of commuters who work in the periphery nodes of the city-region having a further frontier upon which to live. If the New Lenox-Joliet study region solidifies as an economically sustainable city-region node, then Morris, lying within reasonable distance, is a sensible satellite community. Without this development, though, Morris is better positioned to maintain its industrial-agricultural economy and redevelop existing land into

more effective use. While the act of agriculture itself has become more automated and less of a family exercise in recent times, the processing required and the transportation involved still requires sites, something that Morris shares with the other communities in this study region.

Ottawa is perhaps the most interesting example in this entire project, as it has relatively few signs of the typical global city economy, and yet it is, by all appearances, an economy that is sustaining itself in a well-kept, well-planned community. It does have the advantage of having multiple transportation options, with Interstate, conventional road-highway, rail, and water transport available. In addition, the lack of comparably large communities in the vicinity means that Ottawa can serve a large geographic area with a lower-density population without competing for that attention with other large communities. As long as the agricultural production techniques remain the same and low-density development does not continue west from Morris in support of the outer nodes of the Chicago city-region, Ottawa seems well positioned to maintain itself in the near future. Additionally, the presence of a higher education facility in Illinois Valley Community College and some significant tourism industry means that there are signs of an information-era economy. However, the presence of glass and plastics manufacturing as major employers within the community points to a strong industrial presence, and the legacy of radium watch components is still felt within the community (Misra). The future for

Ottawa's economy is surely going to be one that is hybridized, and it is wise to not be dependent on one industry or corporation for long-term economic health.

Utica's economy also features a hybrid of industrial and information era-type structures, with both industry (agriculture and extraction) and tourism providing primary forms of income. Rebuilding from the devastating severe storms earlier this decade rebuilt some of the historic downtown structures, but these were not and are not the economic engine of the town. Rather, having Starved Rock State Park on the southern edge of town, with the million-plus visitors it attracts every year, and the agricultural processing and extraction industries from operating quarries form a combination of many of the features in the other study regions. Utica is also one of the smallest communities studied in this project, so it commensurately requires less economic activity to meet the needs of the community. Promoting tourism opportunities and replenishable agricultural activity seems to be the most straightforward path, especially if the extraction industries either exhaust their supplies or meet a decline in demand. The commercial district seems adequate to the community's needs, and should not be overly affected by downturns in a single sector or temporary recessions in economic activity.

The economic question for this study region is one of entanglement, where the level of involvement with and dependence upon the Chicago city-region determines the shape and nature of future economic development. As Chicago's shadow recedes the further west one travels along Interstate 80, so

too does the influence it has on these areas. Yet, it would be unrealistic to say that, even at the intersection with Interstate 39, Chicago's presence is not felt. Indeed, a great number of the tourism visitors to Starved Rock State Park surely must come from the Chicago city-region, bringing economic activity outside of most conventional city-region boundaries. The key for long-term economic health for this study region is to be realistic about the relationship of communities with the Chicago city-region and what are realistic long-term economic options to maintain the respective communities.

Social Imperative

Similar to the economic imperative, the social imperative differs greatly between the communities in this study region. Morris, for example, has had a great deal more low-density commercial development and limited-access residential neighbourhoods than the others in this study region, and the shape of the community is thus changed drastically. Ottawa tends to be more of a traditional shape, though it too has some signs of more contemporary development patterns. Utica, finally, shows very limited development, though it too has room for improvement of honouring the social imperative.

Much like Tinley Park, Mokena, and New Lenox, Morris developed around a rail depot and originally served an industrial and agricultural community. Newer development has shown signs similar to these communities as well in the form of strip mall and big box-style commercial-retail development on the north end of Morris. As was noted in Chapter 3, a great deal of this development has

been in the form of chain establishments, something that stands in stark contrast to the locally cultivated commercial activity in the old core of the community. The concern with this kind of development is in the limitation of interactivity of life patterns present. With parking lots one of the primary features and the north-south road through both the center of town and to the north much more difficult to cross, this is primarily an automobile form of commercial development. Thus, more of the time that would be used for overlapping life patterns is instead spent confined in personal transportation.

The path forward would be to encourage further use of the downtown core for Morris, as well as encouraging any further residential development within the commercial-retail structure. As it is unlikely that Morris is on a scale where public transit is a likely option, the more appropriate measure going forward would be to find alternative uses for the land surrounding these newer commercial districts. Combining these with speculative warehousing or office structures seems logical, as well as perhaps integrating a bus system. It would be ideal to put in a north-south streetcar system, though this is probably not sustainable in this community. The issue of how to handle this commercial space somewhere with little prognosis for major growth is a cause for concern.

This issue is much more minor in the community of Ottawa. With less of this kind of additional development, Ottawa is in a better position to maintain the necessary elements to honour the social imperative. The shape of the community is helpful but also a point of caution regarding the social imperative,

as the joining of two rivers along with the railroad tracks can potentially isolate parts of the community from each other. Strong institutions are necessary to keep such a community cohesive. The biggest danger would be for additional contemporary-style development to occur in a way that stretches the community along a north-south axis. Such low-density development would be difficult to manage for life pattern interaction, and the prospects for additional growth are even less than they would be for Morris. Ottawa is generally the shape and size it needs to be.

Utica, for the purposes of the social imperative, needs very little other than to sustain the few institutions in place already. The rebuilding following the tornadoes was important as it remade the places that were central to the community. The town has a relatively small center, and so the likelihood of overlapping life patterns is relatively high assuming the community as a whole remains viable and with enough citizens to function. The likelihood of the social imperative being honoured is high so long as strong institutions and a sense of community identity remain with citizens.

The social imperative in many ways seems easy to honour in these smaller communities so long as the shape of the commercial core of the town remains intact. Morris shows signs of this newer commercial development, and remediation is more difficult due to the inability to apply additional development through growth. This is a challenge for effectively applying these imperatives and a more universal solution to this will be proposed at the end of this chapter.

Ottawa is a bit more of a sustainable case, so long as future development patterns do not pull the shape of the community out of a centralized pattern. Strong institutions in such a community will do a great deal to ensure continual overlapping of life patterns. Utica, a very small community, is also very centralized, and unless there is something that radically reshapes this community – either in growth or decline – it is unlikely that the social imperative will be greatly influenced in the near future.

Political Imperative

Smaller communities would seemingly be good places to engage in citizen action, and the three communities discussed in this study region fulfill this requirement relatively nicely. The negatives and positives parallel rather closely the other imperatives, and the possibilities for remediation tend to be consistent with earlier recommendations as well.

Morris has the most ambiguity of the three, as it is again the manner of self-identification for the community that best determines what the best way to honour the political imperative might be. If Morris maintains its independent identity, it requires a different approach than if it becomes a satellite community to a Chicago city-region node (probably in the form of New Lenox-Joliet). The difficulty in this is that the citizenry may change a great deal, and the move towards a satellite community is more likely to bring in individuals with a mind to attaching themselves to the Chicago city-region. The best course of action is for the community to consider what it would like to be, what is economically

realistic, and how to then ensure that future development steps are conducted in a way that preserve community integrity and the ability for citizens to engage in action. Given the commercial development of the last several decades that is separate from non-automobile life-patterns, it is vital that this future development is considered very closely with an eye towards connectivity and the nature of the fabric of community.

Ottawa, assuming that the connections within the community continue to be strong, should have few concerns with respect to the political imperative. The physical characteristics that created the impetus for Ottawa's development could potentially act as divisions within the community. However, the current form, with a developed downtown district and limited additional low-density development on the periphery, means that the prognosis is overall quite good. Like Morris, Ottawa's political imperative is dependent on the economic imperative and how the community continues to evolve in shape in the near future.

Utica is even more in this vein, as a compact community is as inclusive as it can be. The question becomes the continuing prominence of Starved Rock State Park and the extraction and agricultural industries that are nearby. There is little chance for additional major development, so the political imperative in Utica would be best honoured by a concerted effort to encourage citizen action within the current circumstances.

The political imperative, in this less-populated and geographically diverse study region, is difficult to navigate, though, perhaps obviously, encouraging participation and citizen action is the way forward. How this should be handled is dependent a great deal on the future shape of these communities, and how future economic activity changes the current citizen arrangement. This mirrors very closely the activity related to the social imperative.

Ecological Imperative

Honouring the ecological imperative in this study region is equally variable, especially with respect to the massive agricultural activity that dominates here. The concerns vary, and most of these communities show some vestiges of former industrial activity that has required remediation. The challenges for each community are unique, though with proper capital available, none of them are insurmountable.

Morris, in order to honour the ecological imperative, needs to address the same issues that affect its relationship to the economic imperative: low-density commercial development that attracts regional use but requires personal automobile use to access. Transportation is the biggest challenge for Morris, as the proximity of its main commercial activity alongside the Interstate means such firms are well positioned to capture commercial capital throughout the nearby region. This is not necessarily for the best ecological health of the community, however. Given that the commercial district is unlikely to be redeveloped quickly, the question is how to make this area ecologically

sustainable. Perhaps the best approaches are minor incentives that encourage public transit (as noted earlier, probably a bus system, though a light rail line could become viable with further development), car-sharing, and steps to make the area friendly to pedestrians and cyclists. Future development should be considered very carefully for the energy costs involved. Additionally, greenscaping the parking lot areas of Morris would do much to remediate the ecological issues surrounding the commercial activity within the last few decades.

Ottawa has perhaps less work to do, as has been noted throughout this section. The confluence of two rivers provides for natural greenspace, and large-scale low-density development has not seriously taken hold. The main concerns for the ecological imperative in Ottawa surround the maintenance of clean air and water supplies; the threats to these stem from both natural sources and through past industry. The former presents itself in high levels of radon gas and radium in the drinking water, which is handled through a municipal reverse osmosis filtration system (Williams). In the past, the painting of dials with radium also resulted in industrial contamination, something that has required federal intervention for remediation (ibid). To honour the ecological imperative in Ottawa, the best path forward is to continue to be cautious about past contamination, and to be aware of such industrial effects in the future upon the air and water for the community. In addition to monitoring future development patterns, encouraging responsible agricultural patterns is essential

as well, as the run-off for miles around runs past the town through both the Illinois and Fox Rivers. As Ottawa promotes itself through tourism in addition to industry, being on guard against ecological damage would serve the interests of all of the imperatives quite well.

Utica, by contrast, has almost very little it can do to seriously harm the ecological health of the community. With the Illinois River flowing just to the south of town and Starved Rock State Park on the opposite bank, there is ample preserve space present to help maintain ecological health. The major industries, industrial-agriculture and extraction, should be managed to maintain these attractions for both economic and ecological reasons. Future decisions on development should center around ecological impacts on a small community, and the cumulative views of honouring all of the imperatives should provide citizens of Utica with a logical path forward.

The ecological imperative is important to honour, though for smaller, agriculturally-surrounded communities, many of the choices about air and water quality are made by the land surrounding the community rather than the community itself. Being conscious of the use of transportation and energy efficiency is not only beneficial economically, but it also will help to promote the ecological elements of these communities that are important for tourism purposes.

Conclusions

The Morris-Ottawa-Utica study region is important as a kind of boundary object and contrast compared with the other study regions more firmly entrenched within the Chicago city-region. As a boundary object, we are able to consider how the Chicago city-region has an effect on each community, seeing how the effects are more than just spatial, but also cultural. The size of these communities, too, serves as a check for determining how some of these solutions are dependent on either growth, or at least a critical mass of citizens to be operable. This is especially true for public transit options, and this makes the low-density style of development prevalent in contemporary city-regions especially dangerous in these smaller communities: the ability to redevelop these sites quickly to be more appropriate for citizens is greatly reduced.

Interstate 88

Oak Brook-Downers Grove Study Region

There could hardly be a starker contrast than between the Morris-Ottawa-Utica study region and the Oak Brook-Downers Grove study region: while the former all have questionable connection with the Chicago city-region, there are no doubts about the centrality and nodal nature of Oak Brook-Downers Grove. The rate of development and redevelopment is much faster in

Oak Brook-Downers Grove, and there is simply not the surrounding land to allow additional low-density development. This places some challenges in honouring the imperatives, but also some fantastic opportunities for redeveloping a higher-density, healthy, productive, sustainable community that can be a model for other city-regions across the continent.

Economic Imperative

There seems to be little need to suggest methods of remediation for the economic imperative for Oak Brook, as it is as vibrant of a commercial space as can be seen outside of a traditional downtown city center. While the scale is not quite that of, say, downtown Chicago, there is a great deal of high-density development that suggests health in both commercial-retail and commercial-service/corporate sectors. Each requires separate examination, however, as their future paths are not necessarily in lock-step.

Much like the Bremen study region, the retail development in this study region tends to center around an intersection, extending more along one of the roads in question than the other. Here, the major development is along 22nd Street, with the intersection at Route 83 forming the major intersection. At this intersection is Oakbrook Center, a major shopping development that features an enormous sea of parking lots. In future development, this is space that could be used far more efficiently, with mixed-use zoning and parking structures a first step, and diverting Route 83 to below street level and placing pedestrian bridges at ground level to access areas beyond the intersection itself as later

steps. Encouraging pedestrian access along all of 22nd Street will also create the sense of community that is presently missing. Additionally, making use of the parking lot facilities for other purposes increases the tax base for the same amount of space, proving to be a more productive use of land.

The corporate headquarters that have campuses in Oak Brook face the same issue, even though their unoccupied space is generally greenspace. Just east of Oakbrook Center, several corporate campuses dot the landscape; they frequently feature large lawns and water features that are rarely occupied. Indeed, as is the case along a great deal of such structures along Interstate 88, they seem to have few users beyond for keeping up appearances. This is additionally space that could be developed, either to add the notably missing residential element to the community, with the same argument for higher-density use of space for tax revenue purposes. Also, however, is the opportunity to create a critical mass of local users to help maintain and further develop the retail outlets already in place. By increasing the population density, on top of the other benefits, this will do more to reinforce the nodal status of Oak Brook, and would do more to make Oak Brook less of a place to visit, work, or shop, and more a place to live.

The economic imperative for the Oak Brook-Downers Grove study region could take up a project much larger than this work all by itself. Rather than suggest specific additions for such a dynamic region, the purpose here is to point a direction for future development decisions. Instead of getting hung up

on solely the way the retail and corporate headquarters commercial developments can change in the future, it is more in the interest of this project – and the citizens of this study region and my field – to balance this view with the other imperatives. The social imperative, in fact, works quite well with the beginnings of these proposals from the economic imperative; these developments ultimately work quite well together for continuing the success of this study region.

Social Imperative

The social imperative for Oak Brook-Downers Grove centers on the efficient movement of people – as must be done to maintain the efficiency of the current retail environment – in such a way that creates more overlapping of life patterns and less time spent involved with personal transportation. A number of options for this are available, and they greatly depend on more intermingling of the residential population of Downers Grove with the commercial environment of Oak Brook.

The first proposal involves again reducing the amount of driving and parking in automobiles around the retail structures of Oak Brook, particularly Oakbrook Center. Adopting a setup similar to downtown Naperville – as will be reiterated in the next section – with parking structures on the periphery and creating a more pedestrian-friendly landscape would be an excellent first step. As highlighted in the economic imperative, the use of what are currently parking lots for mixed-use zoning would create a part of life patterns that is present for

more than the retail interaction of the present. While some parking structures already exist, they do nothing other than provide adjacent additional parking rather than encouraging interaction. Moving these out to the periphery, closer to the main thoroughfares, minimizes driving, encourages interaction, and suggests the place for additional development on the then-redundant parking lots surrounding Oakbrook Center and other similar commercial structures.

The second proposal involves developing a light rail system along 22nd Street, one that would not only reduce the need for personal transportation, but would also encourage interaction between the commercial areas of Oak Brook and the residential areas of Downers Grove further to the west. Such connection with the surrounding community that does not require personal transportation would ideally attract additional citizens to the fabric of the overlapping life patterns. Light rail can also reduce the automobile congestion along the busy stretch of road, and can make the area seem less intimidating to those for whom such driving is stressful. Encouraging a form of mass transit that will appeal to an upscale suburban sensibility is essential.

A final proposal involves an attempt to bring the employees of the office structures throughout Oak Brook down into interactivity. This would be best established by integrating support services nearby, in a way that encourages pedestrian and cycling traffic. The range of services involved here is quite limitless, but everything from accountancy and legal services to restaurant and retail with daily necessities come immediately to mind. Rather than keeping

these citizens within their towers, integrating them into the fabric of everyday life in this study region would go yet further to improving the exchange of cultural practices and the opportunity for citizens to be engaged, interact, and not isolate themselves through transportation or through isolating structures.

The social imperative is in a limited sense honoured in this study region, as commercial activity is inherently interactive in the information-era economy. Massive retail structures go further to underline the social interactivity already present. Yet, as shown through these three modest proposals, there is a great deal more that could be done to encourage social interaction. Many of these rely on reimagining the use of space and transportation here and in many other suburban areas around the continent. Honouring the social imperative and promoting citizen interaction is a vital step to honouring the political imperative, one that faces a particularly tricky demographic issue in this study region.

Political Imperative

The political imperative is particularly tricky in the Oak Brook-Downers Grove study region, as Oak Brook proper has very few, if any, actual citizens as residents. Rather, like Orland Hills as discussed in Chapter 3, Oak Brook is almost exclusively comprised of commercial structures. As such, determining citizen intention becomes a much more difficult question, and really pushes this project on the definition of citizen. This also complicates one of the universal solutions discussed at the end of this chapter. Downers Grove is more

straightforward, as covered in other study regions, so the political imperative needs particular examination for Oak Brook.

The idea of the global city-region has meant that many political borders have become obsolete, as transnational interaction is as simple as transcontinental, and proximity is more a matter of telecommunications and transportation infrastructure than it is a relationship between two points. As such, Oak Brook provides the opportunity to consider a citizen as a stakeholder who uses a place rather than as someone who lives within the political boundaries of a community.

The political imperative for Oak Brook would then be best honoured by taking into account all users of the area, paying particular attention to both those who use the retail outlets and those who work within the community. Their desires for future development patterns must be taken into account as a kind of opportunity for citizen action. Without this, the borders become a kind of loophole, a chance for an incorporated territory to do as it pleases unless it has residents within its borders. Such a claim, while not only politically murky, does not honour the reality on the ground of citizens being citizens of the city-region and users of a given space.

There are no easy answers for the political imperative for the Oak Brook-Downers Grove study region. Like many other suggestions in this project, there is a certain degree of rewriting law and the charters of a number of communities to make these ideas work. This is feasible only if the citizens within these

communities acknowledge this view of being a regional citizen as a reality and can be shown real, positive, permanent good done by such a change. This will require a great deal of citizen action in areas where they are recognized as having power.

Ecological Imperative

The ecological imperative offers the opportunity to radically redesign Oak Brook itself, something hinted upon by the other imperatives. Beginning with the site at the intersection of 22nd Street and Route 83, a template for how to successfully create a sustainable community while promoting – and furthering – the health of a retail environment can be conjured. The money certainly exists to enact these plans, but without any political impetus or design plan, little action is likely to be taken.

Beginning by enacting the parking structure plan from earlier in this section, the heat island effect from this area can be greatly reduced. Indeed, by reducing even just parking and adding greenspace, there are tangible benefits to the entire city region. Repeat this pattern throughout the Chicago city-region, and quite a dramatic impact can be made.

More important than this, though, is to encourage the type of community that can be created by such an arrangement. It is important here to remember what Paul Lukez has to say about identity in *Suburban Transformations*: “Every city or settlement pattern serves a purpose, whether it provides shelter, security, or economic, political, or social needs. The utility of a city is met in

part through the design of the city's form, its systems, and their ability to support the activities required to sustain it" (10). In addition to reiterating the centrality of the imperatives in the physical form of the city, Lukez is also pointing out the crux of the ecological imperative in the 21st Century: that while the city sets up its form based on need for sustenance, we now must be proactive in our use of limited space and resources and a booming population with an increasing living standard. Adam Ritchie reiterates this in *Sustainable Urban Design: an Environmental Approach* when he states "[t]he planning of our physical environment needs to include a broader range of sustainability-related criteria than is currently the case. Traditional concerns of density, height, highway engineering, and so forth should be treated less rigidly and only as part of a bigger overall picture" (92). We need, by understanding this emerging perspective of a sustainable view of the urban form, to examine what we have done in the past, what the needs are for the present, and how we can build to be healthy, productive, and sustainable well into the future.

This means adding alternative energy sources within Oak Brook to supplement the local use of power. This means adopting LEED (Leadership in Energy and Environmental Design) standards in building and rebuilding structures. This means identifying citizen life patterns and discovering innovative ways of meeting those needs with new materials and new ideas.

For Oak Brook, redevelopment primarily will involve transportation, but the development of pedestrian corridors is really very essential. Adding

residential structures to existing parking facilities and increasing park and public spaces to promote both ecological health and community well-being should be the norm. Oak Brook, if they wish, can be a lab for how the future city can be built, and the commercial enterprises in place would stand to benefit a great deal from such a plan.

This is not to say that these steps are likely to be taken, but small steps that are proposed in the immediate future should be done with an eye towards a long-term sustainable goal, one that will promote the relevance of Oak Brook well into the future.

Conclusions

In reality, these future developments and redevelopments in Oak Brook should be made with an eye toward honouring all of the imperatives. It would be beneficial to encourage some of the suggested steps through incentives to the relevant corporate bodies to make experimental use of their land. The hardest step in this process will be the first one, the one that gets the ball rolling, but the commercial aspects of Oak Brook can only benefit from this reimagining, and it would be an effective laboratory for such purposes. Any benefits this may bring would surely be felt in neighbouring Downers Grove as well, something that should encourage the municipalities surrounding Oak Brook to make this project a priority.

Lisle-Naperville Study Region

Much like the Oak Brook-Downers Grove study region, the Lisle-Naperville study region is one that is slightly off-balance in the prominence of the communities. Commensurately, the focus of this project within this study region will be leaning mostly towards Naperville as well, with the stark contrast between the downtown development style and the periphery with the low-density commercial structures and limited-access residential neighbourhoods gaining specific attention.

Economic Imperative

Naperville's economic position is quite enviable, acting as a global city-region node, featuring a large residential population, hosting a small private college, and expanding out to its borders to make the most of tax revenue. This does not mean there aren't steps that could be taken to be more effective. An attempt at redeveloping some of the most recent construction may go some way to further improve the economic output.

The older downtown area has been intelligently handled, making excellent use of space. There is more work to do, but it is a bit surprising that similarly well thought-out decisions have not prevailed on the periphery. Here, west to the border with Aurora in particular, large swaths of land are taken up by parking lots for strip mall and big box-style retail development. These

developments form the perimeter, while limited-access residential neighbourhoods are also quite prevalent.

The best course of action, to make the most of space from an economic perspective, is to encourage the kind of development that avoids large oceans of parking spaces and a dependence on automobiles. When the opportunity best presents itself, introducing mixed-use zoning with residential and commercial-office, municipal, and common spaces like parks and public markets would go a long way to not only enhancing the social imperative (as will be discussed shortly), but also to maximize tax revenues and increase efficiency in limited land use.

It is unlikely that this would be a cost-effective step in the short term, so it should remain as a long-term goal when redevelopment opportunities present themselves. It would also behoove local authorities to create incentives for these changes, and in the process reaping the rewards of creating a burgeoning community with tax dollars and a desirable place to live and work.

Social Imperative

Naperville possesses an excellent example for overlapping life patterns in a way that creates a vibrant neighbourhood with its downtown district.

Recreating this in other parts of town would be beneficial from a social perspective. The redevelopment concepts mentioned in the previous section would be most beneficial to the commercial periphery as well, redefining not just who uses this space, but also how. Such concepts reiterate what should be

done in alignment with the economic imperative when the opportunity presents itself in the future.

With a student population, daytime shoppers, evening venues including restaurants and bars, municipal facilities (library, village hall, high school, etc.) around the downtown core, and a surrounding of older grid-style residential neighbourhoods, downtown Naperville experiences a variety of users with differing purposes at broadly different times of the day. Recounting the perspective of Jacobs from earlier in this project, this is precisely what is needed for a vibrant community to exist. Downtown Naperville, by all observations, certainly seems vibrant at almost any time.

This is in contrast to the commercial periphery of town, which experiences set times of business, and as a result, seems to shut down almost all at once. With single use zoning and a dependence on automobiles, there is little interaction regardless of time of day, two causes of concern for anyone interested in the cultural practices and exchanges that occur with overlapping life patterns. Regardless of the reason for this kind of disconnect, the difference in the social success between these two areas of town cannot be denied.

In order to remediate some of these issues, it must once again be said that mixed-use zoning needs to be introduced to these commercial spaces, creating additional uses and purposes at differing times, as opposed to simply the opening and closing hours of the majority of these (primarily chain) establishments. Small-scale commercial-retail entities should also be introduced

to some of these limited-access residential neighbourhoods. As these two types of land use are integrated into one, more of a neighbourhood pattern that resembles the downtown district can begin to be cultivated.

This is not nearly as radical of a change as was proposed for Oak Brook, but with a section of the community already functioning in a way that is close to ideal, there is time to redevelop more slowly, allowing for pedestrian and cyclist space and working towards reduced automobile traffic. Again, a streetcar system would probably serve Naperville quite well, augmenting the more regional Metra rail service, all the while increasing access to the commercial districts (of all variety) in town without contributing to additional traffic woes.

The encouragement of additional social interaction for Naperville is one of augmentation rather than one of implementation: the downtown district shows a great deal of foresight, and with additional effort and coordinated zoning regulations instituted alongside those of neighbouring communities, the kind of space that this border development is can be so much more for the social imperative.

Political Imperative

Similar to the social imperative, the political imperative for Naperville has strengths and weaknesses. The older grid-style residential neighbourhoods have a very direct form of access to the centers of government and commerce, while the peripheral residential neighbourhoods are more isolated, and their opportunity for action is perhaps less than some of their fellow citizens.

The older, more historical residential district north of the downtown district has access to the amenities and civic institutions of downtown, as well as simple access to the rail line and Interstate 88 interchanges to the north. This suggests an opportunity for engagement with citizen action if they are so inclined and the civic institutions encourage such action. With the physical environment present for effective citizen engagement and action, it becomes an issue beyond the ability of this project to ensure that citizens are encouraged and show a desire to be involved in action beyond work and labour.

At the opposite end of the spectrum, the peripheral residential neighbourhoods are much more isolated from all of these features, and have instead close proximity to automobile-dependent commercial-retail activity. It is of the utmost importance that special effort is made to include these citizens in political institutions and to encourage their ability to engage in action, despite the shape of these parts of the community. Adding additional points of access to many of these neighbourhoods would be one step to take, make them less isolated enclaves. Another would be to create satellite municipal kiosks, decentralizing some of the functions performed at village hall with the help of digital technology to make them accessible to these newer residential developments.

The goal should be, regardless of citizen choice for living in these newer developments, to make certain that citizen action is encouraged and inclusive with the general direction of the community. Until the built environment can be

restructured to more accurately reflect this desire, it must be a political gesture to create community in more than just name and political boundary.

Ecological Imperative

There are many facets of the redevelopment of downtown Naperville that are moving in an ecologically sensible direction, while the newer periphery seems to flaunt such concepts. Bringing both into harmony will be a long process, one that will need sustained political and social will, but it is a viable path, one that can be an example for other city-region nodes.

Downtown, while engaging in creating greenspace and reducing parking lots and other heat island effect-generating spaces, can go further by encouraging supplemental renewable energy sources and intelligent use of wastewater and heating and cooling solutions. Integrating a light rail system would, again, do a great deal to reduce automobile use, especially with some of the technological solutions now available. Ultimately, these suggestions are minor, and their implementation would continue to make downtown Naperville a model for intelligent redevelopment.

The periphery, by contrast, is an energy consumption issue, with automobile traffic, heat island effect-generating parking lots, and limited other steps at generating efficiency in place. An incentive program is the best possibility, encouraging existing businesses to take steps themselves without municipal intrusion. Municipal steps could include redeveloping major roads into boulevards, reducing the effects of these wide roads for the heat island effect.

The suggestion from the Bremen study region to restrict the number of lanes present and reduce speeds would also encourage pedestrian traffic rather than an increase in automobile usage. In short, there are many steps that need to be taken in the commercial periphery, a long process that will require a great deal of political will and community patience.

The ecological imperative will take some effort to honour in a community as vast as Naperville, but the conversation at least needs to begin as to how to go from short-term economic convenience as opposed to long-term health, productivity, and sustainability. This study region shows a great deal of promise and prosperity, and, with an acknowledgement that these imperatives need to be honoured, the process can begin in earnest. Naperville in twenty years will be a most interesting place to see.

Conclusions

The Lisle-Naperville study region shows both what can be wrong and can be very right in contemporary community development. The solution for how to intelligently redevelop a downtown core is now knowledge that can be replicated. The way to redevelop newer strip mall and big box-style commercial developments and limited-access residential neighbourhoods still needs to be made clear. Honouring the imperatives in future development decisions, and especially looking beyond short-term economic opportunities, is a mindset that should set this study region on the right path to a healthy, productive, sustainable future, a direction it is admittedly yet to take.

Aurora-Batavia Study Region

The Aurora-Batavia study region has some similarities to the New Lenox-Joliet study region: communities of non-equitable size can work together to form a city-region node, the legacy of old industrial activity has determined a great deal of the current shape of the community, and the more recent redevelopment for an information-era economy has placed some stresses on existing infrastructure. The challenges here are on something of a large scale, but there is an excellent base from which to build in line with the imperatives. Like the New Lenox-Joliet study region, these two communities will be handled in turn for each imperative.

Economic Imperative

Aurora has shown great steps in redefining the economic foundation of the community, something that has proven a bit more challenging for Batavia to develop going forward. This study region goes a long way towards defining the importance of access to transportation and how that access determines the patterns of development. The economic imperative is related very closely to interconnectivity, so these transportation corridors are vital. With Aurora and Batavia, we see one community that is well connected, and one that is somewhat more remote.

The industrial legacy of Aurora is easy to see, both in the infrastructure and in the location of the city itself. Positioned alongside the Fox River and with

an extensive rail network nearby, Aurora was a successful city in its own right going back to the mid 19th century. The landscape along the river, like Joliet, is dotted with the infrastructure from an old industrial city. Repurposing this space in an economically efficient manner is one of the biggest challenges faced by this study region.

The first stages of recommendations have already been undertaken, with the downtown core being redeveloped into a mixed-zoning area featuring entertainment and education facilities. Building on this will involve being conscious of what elements would be most likely to mesh with the economic engines of the information-era economic realities. With relatively simple access to multiple forms of transportation, Aurora can continue to take advantage of its positions, just as it has done since its founding. Some recommendations include luring in regional corporate headquarters, information technology and engineering, and other such firms that would find a position in a prosperous, highly-educated region with a major federal research facility to be a plus. The logical transportation patterns around downtown Aurora indicate that there is a great deal of potential for this type of growth.

More on the periphery of the city, development has seen the low-density mono-zoning approach typical of suburban areas of global city-regions. This style of development, as noted in the preceding study region, proves to be a challenge for effective redevelopment. The question, especially for the commercial aspects of this peripheral development, becomes one of what will

work in the long-term. The strip-mall and big box style of retail development may ultimately prove to be unsustainable, and so Aurora must be thinking how, in the future, to redevelop such places to experience overlapping life patterns. An emphasis on mixed-use zoning and economic activity outside of typical retail store hours is essential.

Batavia's challenges are a bit more unique. With limited access to major transportation, Batavia has correspondingly low retail development, with a functioning city center that is relatively low-density and the obvious remains of some infrastructure from when the Fox River was more of an industrial waterway. With a large residential population, Batavia finds itself in a position where it is more of a bedroom community. What would Batavia have to do to generate more economic activity within the city's borders?

The first option, increasing commercial-retail opportunities, would require the large surrounding residential population choosing these outlets over the ones already available. Batavia, with the municipal and preserve space along the downtown portion of the Fox River, seems to have an interest in creating this kind of activity in their downtown region. This will require, through some means or other, multiple purposes for citizens to filter through the downtown area. This is no small task, and will most likely involve cultivating niche retail, gallery, and café space, and providing the types of incentives that will allow such places to slowly develop and flourish.

The second option would be to take advantage of the current residential population and attract satellite offices for regional headquarters located elsewhere within the city-region. Smaller-scale commercial-service structures – either as single-story or as mixed-use zoning - would fit into the existing infrastructure, and also provide the opportunity to attract jobs within a primarily residential community. There would then be more opportunities for non-automobile commuting, and the ancillary retail services that would be supported by these would be very important. Add to this the possibilities for common residential errands also being completed within the center of town, and honouring the long-term economic imperative through Jacobs' recommendations becomes a very real probability.

Both communities have a great deal of "ifs" in their future economic plans. Aurora has the infrastructure in place to succeed, but must work hard to attract the kinds of economic activity that is likely to be successful in the long-term. Batavia is in many ways dependent on the successes of the surrounding communities, but does, if the city wishes, have the opportunity to shift the focus on their downtown core to create something more likely to be used by a variety of residents at different times for different purposes. For both, the continuation of current economic trends and the success of the larger Chicago city-region are essential for these types of recommendations.

Social Imperative

Like the economic imperative, the social imperative for the Aurora-Batavia study region relies on the overall health of the Chicago city-region and the continued redevelopment of existing space as a means of improvement. Also similar to other study regions, the newer forms of development on the periphery pose an interesting challenge for honouring the social imperative.

The City of Aurora is a kind of microcosm of many so-called Rust Belt cities across the United States: the old downtown core is not being used to capacity, and much of the immediately surrounding industrial infrastructure is in disuse or in various stages of redevelopment. Beyond this is then the residential development, with both old and new styles evident. Each of these types of residential developments poses some issues for the social imperative.

The older neighbourhoods of Aurora are contained within a typical urban grid pattern. This means that there is adequate filtration of traffic, so there is little congestion created by fewer primary traffic arteries. Yet, with the contemporary style of retail being more one of the remote shopping center, the advantages of this older-style of community development are somewhat tempered, as automobile travel is still virtually essential for acquiring daily needs. Honouring the social imperative in these neighbourhoods will involve finding ways to redevelop space that is currently commercial along the major roads into the kinds of spaces that carry daily needs. The challenge for this should not be understated, as it is not as simple as dictating from above what

gets placed where. Rather, the tools available to municipalities – zoning, attracting specific (usually large) corporations – should be used with restraint, as the community must be recognized as in some ways self-organizing. Another previously mentioned solution would be the reestablishment of a streetcar system, something that would encourage overlapping of life patterns, though this would be the type of solution that would require more scrutiny by experts in respective fields.

The newer neighbourhoods of Aurora face a bit of a stiffer challenge in the face of honouring the social imperative. The peripheral neighbourhoods, with limited access to fewer major arteries, tend to depend on automobile access even more, and aside from any other issues, this means that the majority of potential time for interaction is instead spent in an isolating form of transportation. This is a situation where, similar to the older neighbourhoods, encouraging a specific type of growth, while risky and difficult, may be in order. In this instance, developing some small-scale commercial-retail facilities within the boundaries of these large residential developments may indeed prove to be the path forward. Discouraging this type of mono-zoning development in the future and getting these citizens to the types of facilities that encourage interaction is of the utmost importance.

Batavia, by contrast, has many of the residential features in place to develop overlapping life patterns, but is lacking the venue for such interaction to take place. The center of the city is not as well frequented as it could be, as

many of the residents, living along the perimeter of the town, are served by the surrounding region. Taking steps to encourage citizen interaction in the center of the city is, as mentioned in the economic imperative, essential to the long-term health of the community. There is some danger in replicating the model of New Lenox, where a kind of center is (not quite) arbitrarily dropped into a part of the community with the expectation of citizen interaction. Here, with the old city center having some features that are already popular, encouraging further use and development of municipal facilities seems a logical step forward. This also means that the types of attractions placed within the city center should not be ones that are already in existence on the periphery of the community – to do so would give citizens little incentive to change from their current life patterns. Instead, a better path would be to create more of a sense of place through the aforementioned niche retail, gallery, and café and commons space. This will require a great deal of municipal resolve and support, but it also seems to be the most likely path that will separate downtown Batavia from surrounding regional elements. Such a destination, while still remaining relevant to local citizens, would be an ideal step towards creating a sense of community and offering a logical opportunity for the overlapping of life patterns.

It is beyond the scope of this project to offer specific directives to communities on how to proceed. To do so is problematic, both because this study is being performed by a non-citizen, and because that sort of top-down solution to a specific problem, if not organically integrated into the community,

is almost predestined to fail. Rather, the suggestion for a general direction for the future is meant to empower local authorities to seize opportunities to honour the imperatives at the advice of other experts at the time such chances present themselves. The honouring of the social imperative necessitates such context-dependent solutions.

Political Imperative

Honouring the political imperative in the Aurora-Batavia study region is a matter of some difficulty as, once again, the shape of the communities means that citizen involvement is not a matter of simple, easily-implemented solutions. Rather, like the other imperative in this study region, it is a matter of small solutions and moving in certain directions rather than a snap of the fingers.

For Aurora, the decentralization of the population is a matter of concern for citizen involvement. An effective, obvious delineation of the community into neighbourhoods, and then encouraging representation from each of these neighbourhoods, would probably be the best path forward. This follows the pattern setup by the Bremen study region, where a similar grid situation was also surrounded by newer-style limited-access residential developments. A similar application can form a logical, accessible model of government for Aurora, one that is accountable to citizen needs while at the same time not being overly unwieldy thanks to the relative size of Aurora. Such a solution, for example, would not be nearly as effective for the City of Chicago, where a ward system is in place. The neighbourhood system proposed here would be on a

smaller scale, to the point where the representative for citizens can be someone with whom they are familiar. Access is the key.

Batavia, by contrast, still has the issue with a lack of centrality. This is a major hindrance to effective civic participation, and one that suggests, barring redevelopment, a reconsidering of the political boundaries of Batavia. As discussed in Chapter 4, there seem to be three main areas of Batavia, and considering them as a confederation might make citizen involvement a bit more likely. This is a form of Aurora's neighbourhood representation, but it must be a step further, as Batavia's small size means that there would be relatively few representatives. Whatever form this takes, it should encourage citizen participation, as well as take into account the political realities of decentralized community that has flowing borders with its neighbours and thus some elements of limited citizen self-identification.

There is really only reiteration at this point for the political imperative within this study region: of the utmost importance, as with anywhere, is the presence of citizen voice within municipal decision-making. As will be seen in the universal recommendations at the end of this chapter, there are some questions that must be asked in all urban settings regarding these forms of representation and what form they should take. For Aurora and Batavia, there are many stakeholders in addition to all of the citizens, so decision-making and community development is a difficult question in the face of an attempt at representation and equity.

Ecological Imperative

Honouring the ecological imperative in the Aurora-Batavia study region becomes a two-part question: one of redeveloping older, industrial sites, and one of remediating issues with more recently developed sites. For Aurora, this is an issue of core versus periphery, whereas for Batavia, it is a matter of the two combined within most areas of the community. For both, an emphasis on site-specific solutions is important, but we also must recognize how these sites fit into the larger community and how a concerted attempt at consistency can assist community cohesion.

Aurora's industrial legacy has left a great deal of idle infrastructure in place, something that provides an opportunity for site rehabilitation. Chapter 4 already showed how one site accomplished this, with the Roundhouse in Aurora redeveloped as a brewery and restaurant. Continuing such steps, in addition to making use of existing facilities and thus saving resources from developing a bare site, also helps maintain a certain level of density within the city center, something that means less transportation for citizens to access the site. Keeping the density of the city intact is essential to avoid additional low-density development on the periphery.

That periphery faces challenges that we have seen in other study regions, where redevelopment of existing parking infrastructure, while constructing vertical parking facilities, and mixing in additional zoning types would go a long way to honouring the ecological imperative. For Aurora, connecting this

periphery to the city center is an important step, preferably using a public transit link. This would allow the existing low-density development to remain in place, while making accessing the facilities something that does not necessarily require an automobile. The sites themselves, then, should integrate residential facilities, and should be retrofit for as many sustainable elements as possible, including supplementary renewable energy, recycling wastewater, and using innovative “green” materials for renovations. These steps are universal steps, of course, but they are effective steps that can be taken particularly in low-density development territories, as these are spaces that are ecologically wasteful that can be made into models of honouring the ecological imperative.

Batavia has a heritage of windmill production on the eastern shore of the Fox River, and it seems appropriate that Batavia could take action in demonstrating site-specific renewable energy application. Batavia is somewhat unique in the Chicago city-region in that it maintains its own power system, as well as most of the rest of its utilities. The downtown district could then be encouraged to apply solar and wind additions, taking some of the load off of the power grid and serving as a model for how private enterprise and public utilities can work toward a common goal. Additionally, working together with regional authorities, Batavia should work towards building a non-automobile connection spanning from Aurora to St. Charles, linking the Fox River communities together than making access to additional forms of transportation a bit simpler.

The goal of the ecological imperative is to make wise use of sites and resources for the long-term benefit to human settlement. For the Aurora-Batavia study region, this means smart redevelopment, both of older industrial-era infrastructure and newer, low-density development. As growth continues, making additional use of older structures using new materials and with renewable supplements is the first step, with increasing the density and establishing mixed-use zoning in the newer developments an additional step. Keeping these efforts in concert will serve the ecological imperative well and be to the benefit of the entire study region.

Conclusions

The Aurora-Batavia study region is relatively consistent in its needs, with all four imperatives suggesting similar approaches to redevelopment and remediation. The communities must be realistic with the economic imperative, moving beyond the industrial-era economic engines (which have already largely left), and embracing the possibilities of their advantageous position within the Chicago city-region. Socially, both communities need to encourage citizen interaction and a decrease in automobile usage. The opportunities of developing more areas similar to downtown Naperville should be enticing to Aurora and Batavia. The political imperative requires citizen ownership of the community, and for this they need to be able to identify with the community itself, having their life patterns intertwined with the fabric of the community itself. The ecological imperative is best honoured by encouraging citizen

involvement within the community rather than beyond it, as this is the most sustainable pattern for the community. Following on from the path of becoming a city-region node, the Aurora-Batavia study region has a great deal of potential for keeping citizens local rather than belonging to the city-region at large, and this kind of identification is the most important trait to cultivate in future development decisions.

Dekalb Study Region

Much like the Morris-Ottawa-Utica study region, the Dekalb study region acts as a kind of catchall for all of the territory west of Aurora along Interstate 88. It is equally useful for determining connection to the Chicago city-region, and the nature of transportation access throughout this region is what makes this study region unique. It is the limited access – and what this means for the future prospects of these communities – that is most telling about the connection to the Chicago city-region. The majority of the analysis for this study region will inevitably, as a result of access points to Interstate 88, focus on Dekalb itself, with the minor communities along the corridor mentioned as they are relevant to a discussion of the imperatives.

Economic Imperative

Beginning with Dekalb, the economic engine of the study region is Northern Illinois University, a major state university. This is inline with the trends of the information-era economy, with an emphasis on finance, tourism,

and of course (and relevant here), education. The immediately surrounding communities have gone from being in a position of independent to having their periphery extend to be a part of a kind of external city-region node.

Communities more on the periphery act more as agricultural hubs, something that, as discussed earlier in this chapter, probably is a stable form of economic activity, though could change depending on advances in processing technology and changes in ownership of land and infrastructure.

Future development plans should focus on intelligent site management at and around Northern Illinois University, as well as making better transportation links in the event of significant changes in agricultural processing and transportation. For the former, having relatively high-density housing and a community (college students) that will not have universal access to automobile transportation underlines the necessity of compact residential and commercial development surrounding a purpose (education) that requires site-specific access. Mixed-zoning development is a priority for any future decisions, and integrating as many alternative transportation measures as possible will, aside from benefits in other imperatives, aid citizens and merchants alike in easy, inexpensive access. The danger here is in creating the kinds of urban growth boundaries that can be seen in cities such as Portland, Oregon. While these offer tremendous benefits in the ecological imperative, the danger is in raising the cost of property by constricting supply. In a college town, this would be tremendously disadvantageous.

The surrounding communities of the Dekalb study region, the Maltas and Crestons, are unlikely to see additional economic activity and, assuming the citizens find this to be acceptable, efforts should be made by the relevant authorities to maintain this status quo. This means some overlap with the political imperative, as the ownership and operation of the agricultural properties in the vicinity become the concern of these communities. Additionally, ownership of the processing facilities becomes a significant factor as well, as does the operation of the railroad lines that run through these communities. Here, with less of a direct economic relationship to the Chicago city-region, maintaining current economic opportunities seems to be much more logical than attempting to attract new ones. The matter of limited access to the major automobile transportation tools of the city-region is also a limiting factor, as will be explored further in the other imperatives.

The community of Rochelle, at the far western end of the study region and this research project, features multiple transportation routes that make it an attractive center of exchange of goods and further development. With a major train yard and two Interstate highways, Rochelle, beyond the confines of the Chicago city-region, is positioned well to take advantage of the information-era city-region economy. The responsible authorities would be well served to attract logistics operations, speculative warehousing, fulfillment centers, and other such activity to take advantage of these opportunities. This is, of course, dependent on the wishes of the citizens and the balancing of the other

imperatives. Of the communities within this study region, Rochelle is well positioned to grow and adapt to changing economic realities.

The economic imperative is not one of high activity within the Dekalb study region, more, like many parts of the Morris-Ottawa-Utica study region, being a matter of sustaining the present situation rather than attracting new investment and opportunity. The presence of Northern Illinois University serves as a piece of the information era-economy, though it is not reinforced with the other major tenets of such an economy. Rather, the suggestion for development patterns in the future within this study region lies more strongly with the remaining imperatives.

Social Imperative

Honouring the social imperative in this study region is a much different task than for communities more centrally located within the Chicago city-region. With the exceptions of Dekalb and Rochelle, most of these communities are relatively solitary and it is a matter of local civic pride and interaction that will determine the overlapping of life patterns. These remain likely. It is in the areas where low-density growth has begun to take hold that there is a great deal of question on how to honour the social imperative, while for the smaller communities, it is a matter of continued existence and population loss to urban centers that will ultimately decide the fate of interacting life patterns.

In Dekalb, some elements of low-density growth have begun to appear on the periphery, especially to the south and east, with some housing

developments being added to the north. As mentioned under the economic imperative, there are some space-specific constraints for Dekalb, which has been something of a brake on this development, but the necessity of an automobile for everyday goods leads to life patterns that do not personally interact. The added difficulty for Dekalb is the presence of a large transient population. This is a difficulty for the social imperative in most university communities, and given the relation in size between Northern Illinois University and Dekalb, it is impossible to regard Dekalb as any other kind of community. To honour the social imperative, it is very important for the community to have strong institutions, ones that engage the permanent citizens and also the university students. Keeping these institutions within a central location is important as well, avoiding interaction on an automobile level. Open markets, mixed-zoning neighbourhoods that are automobile-free, and strong, centrally-located entertainment options are all logical choices.

For the surrounding communities, this becomes more of a matter of keeping population and the facilities for basic, everyday needs located within easy reach of citizens. While it is likely that many citizens will conduct some of their commercial activity in Dekalb, Aurora, or Rochelle (where strip mall and big box-style commercial-retail developments exist), having retail outlets with daily needs (food, automobile fuel, agricultural supplies) is vital. These serve not only as vital economic outposts within these small communities, but also become very likely points of social interaction, with life patterns overlapping in a

way that is essential for community identity. Every effort should be made within the community to maintain the presence of such facilities, as well as to keep local school unconsolidated, postal facilities intact, and other such institutions, all to maintain the few points in small communities that form the nexus of the vast majority of life patterns for citizens.

Rochelle, by contrast, with the possibility of growth, must ensure the maintenance of the civic identity that already exists. This means being very careful on development decisions that will prove to be low-density and place points of likely citizen interaction far on the periphery of the community, thus being reliant on automobile access. Keeping the community centered throughout any future development and redevelopment will help citizens to interact, creating the overlapping of life patterns that honours the social imperative and further makes the action of the political imperative possible.

The social imperative is a different concept when it comes to the periphery of the global city-region: further studies in rural design that are forthcoming will surely deal with the complexities of access and non-access, as well as how to develop a community that does not have spatial constraints for development but still must maintain identity. As this concentration develops, it will be with an eye to sustaining communities and integrating design concepts that have proven necessary in their urban counterparts, while at the same time honouring the identity of the citizens and, thus, their citizens.

Political Imperative

The nature of the political imperative in this more rural setting is as difficult as defining the social imperative, with varied forces at play. For Dekalb, this means there is a challenge of having a large percentage of daily citizens being transient in nature, spending rarely more than five or so years within the community, and also perhaps not engaging with the community the way a permanent resident would. For the outlying communities, political activity and the ability to engage in action are closely related to the action involving the surrounding land and the state of agricultural policy. For Rochelle, the political imperative is heavily influenced by the economic trends in the vicinity and access to transportation, something that is plentiful nearby by sorely lacking for some of the aforementioned outlying communities.

For Dekalb, citizen action is a matter of relative strength, as the student population – to say nothing of the associated faculty and staff – is quite a bit higher than the residential population of the community. Regardless of student involvement within the community and their capacity to engage in action beyond the confines of their campus, the wishes of the University community as a whole plays a significant role in Dekalb's development and political situation. As development progresses in Dekalb, a wise path forward would be to acknowledge the presence of the University community and continue dialog on joining plans for specific sites. It is imperative, of course, that the permanent citizens are well represented in these types of decisions, as they are the ones

who will be engaged in action within the community over the long term. For specific sites, this will mean preserving common spaces and those locations that are a part of the most common life patterns as identified under the social imperative.

For the outlying communities, the sense of citizen action is reliant upon the cohesiveness of the respective communities themselves. It is highly probable that a high percentage of the citizens already interact with one another, and their level of action is dependent on this kind of interaction. The variable that heavily influences these various communities within the study region is the surrounding area and the economics of agriculture. If the surrounding agricultural land were to heavily consolidate or choose to process and transport out of facilities of their own creation or away from the community proper, this would have dire consequences for the respective communities across all of the imperatives. As such, for the ability to engage in action, citizens should have regional representation in a way that has influence over such land-use decisions. Rather than this simply being about property rights, it becomes a matter of the future of these communities, and their regional representation foreshadows one of the universal solutions at the end of this chapter.

Rochelle has similar questions to ask of itself, though these are more along the lines of the possibility of future growth and how the present citizens will influence the direction of that growth. Instead of this being a matter of

survival, this becomes a matter of voice and how action can be demonstrated in the future with the prospect of so much low-density development along the existing transportation routes. This, too, calls for a regional management approach, one that takes into account more than simply who holds the deeds to what pieces of property, but also considers the effects of all of the imperatives and receives citizen input on a desired future direction. Should the development of distribution facilities proliferate at a great rate, there is danger that the voices of citizens could be lost, and the shape of their community would be altered to suit the needs of the economic imperative, and possibly not even the long-term economic imperative at that. The political imperative should honour the stability of citizens when considering other imperatives.

This study region reflects three different situations, but all of them call for development decisions to include the surrounding regions, taking a larger perspective into account in order to better serve the needs of citizens. What this study region highlights is the need to consider who should be considered citizens and how their needs should be balanced with the other stakeholders brought forth through a discussion of the imperatives. This is a subjective, individual measurement, though it is one that should be handled carefully, and cannot be equitably accomplished through the application of outside solutions.

Ecological Imperative

Honouring the ecological imperative across such a broad study region is also subjective, and the solutions offered here differ from those closer in to the

Chicago city-region. The crux of the matter is how to reduce consumption for communities that are low-density and not self-sustaining in the sense of what is consumed versus produced in each community. There are strategies in each site, however, that can reduce waste and make the existence of each community sustainable and a catalyst for the further development of the other imperatives.

In Dekalb, for example, having a major university means there is a large institution in place that can initiate some development plans independently, such as supplemental renewable energy and recycling facilities. Further, with such a large population using one institution's dining facilities, the opportunity to unilaterally introduce policies that use less packaging and result in less waste is present. This is not to say that such initiatives are not underway or that Northern Illinois University does not have "green" credentials. Instead, this is a model for how a large institution can lead the way for its surrounding community in making steps to honour the ecological imperative. Future building development on campus should provide similar leadership, following sustainable and biophilic building practices where possible. Additionally, the community remaining relatively compact and walkable is important for reducing energy consumption, to say nothing of how such steps honour the other imperatives. This community is otherwise relatively centralized, so a mass transit system seems unlikely and probably unnecessary.

The outlying communities certainly would not benefit from mass transit, unless such a move, for the communities along the railroad line, would act as an efficient connection, one that would continue to Dekalb and Rochelle, as well as to the Chicago city-region to the east. Setting such transportation ideas aside, these communities would benefit from having a great deal of their everyday needs provided locally, thus reducing personal automobile traffic. Additionally, supplemental renewable energy facilities should be considered to make such areas as energy neutral as is practical. As space has rarely proven to be a constraint in development for these communities, accommodating, for example, wind energy should not prove difficult. In general, however, these outlying communities have a relatively small ecological footprint, and beyond transporting goods, most ecological concerns are handled by honouring the other imperatives simultaneously.

Rochelle has some ecological concerns given the current pattern of low-density development. The older core of the community, like many similar communities in study regions to the east, is compact, provides easy access to goods and services, and prevents the unnecessary use of personal transportation. The newer portions, however, pose the issue of access, with major commercial facilities moved to the periphery of town. Echoing the community of Morris, Rochelle is being slowly pulled out of shape, with concerning prospects for energy usage as a result. It should be noted here that the concern is not with the transformation of preserve space into commercial

space, but is merely the transfer of land from agricultural to commercial and industrial use. The concern is more in taking such land and creating large parking structures with it, when there are more efficient and ecologically-sensitive options available for periphery development. The nearby transportation infrastructure provides a connecting network to the Chicago city-region, as well as other city-regions around the country, and national policy that encourages efficiency in such regards would be of interest to communities such as Rochelle, though would ultimately influence every citizen who makes use of such corridors.

The ecological imperative is quite site-specific in the Dekalb study region, leading more to a possible philosophical path forward more than concrete steps: such further action is best advocated by other fields who are specialists in the issues involved. In fact, the ecological imperative for the Dekalb study region is a good lead-in for the universal solutions suggested in the next section of this chapter.

Conclusions

Like the Morris-Ottawa-Utica study region, the Dekalb study region is by no means homogenous, and the work of this project does not attempt to be definitive about each community mentioned herein. To do so would be a logical continuation of this work, and instead acts as an elaboration of how the imperatives established within this project can be adequately considered in planning decisions. Dekalb, as the only community between Aurora and

Rochelle with direct Interstate access, will inevitably decide much of the shape of this study region, though the path forward should be one that is cautious and honours the wishes of citizens so that these communities may be stable and continue to serve the needs of citizens.

Universal Solutions

While the title of this section may suggest some lofty theory-of-everything for development and redevelopment, the purpose here is much more simple: to make policy recommendations in light of the study regions examined above and provide a general direction forward, both for policymakers and for further academic work. It was not and could not be the goal of this work to make development and redevelopment suggestions for every site within every study region: such work would take volumes and would ultimately prove useless, as it would be a top-down solution rather than one inspired by citizen desire and a logical examination of the economic, social, political, and ecological realities of the communities involved. Where this chapter has suggested more site-specific solutions, it has been through the lens of a former citizen, someone who has made use of these sites and has experienced much of the existing development first-hand. These suggestions, therefore, were not inorganic, remote, academic things, but observations made by a former citizen applying a humanities-based theory of development. I hope citizens of these respective communities recognize my applications of this theory as coming from a former

fellow citizen interested in balanced, community-inspired development that engages, connects, empowers, and preserves.

By contrast, this project can recommend how citizens of other communities can apply these same imperatives to their development decisions, what political shapes need to be present in order for these decisions to be made, and sources of inspiration for lasting development that is not based on an idea of short-term gain and rather looks at long-term sustainability and perpetuation. The first solution involves reimagining the form of city-region management and proposes a new way to look at land use decisions, while the second promotes an existing concept in ecological design that should be introduced wherever possible when considering development or redevelopment projects. Both are ideas that, under their respective umbrellas, make room for site-specific and community-specific adjustments, and are designed to be bottom-up solutions for citizens and communities rather than ones applied from the top-down.

City-Region Governance and Rogerian Discourse as Site Development Arbitration

Up to this point, the theory developed in Chapter 1 to understand the imperatives has served as the lens of this project. In order to formulate a policy method that integrates these four imperatives effectively in the vast majority of city-region contexts, we should revisit several of these key urban theory texts

and apply further humanistic works to them. For the first proposal, one that calls for the reformation of city-region government and the way city-region planning involves citizens, the language of rhetoric and negotiation comes into play once a model for governance is established. That is, once a structure of government is established, the work that such a government can do will briefly be explored. For the second proposal, additional elements of biophilic design must be included, so as to lay out a more thorough analysis and proposal for implementation of biophilic elements in development and redevelopment. These two proposals, moving forward from an exploration of the imperatives within these study regions, provide a template for how the concepts developed within this project may be considered and adapted for use in other city-regions both domestically and internationally.

One of the main products of this project has been to lay bare some of the inadequacies of the current governmental forms of the city-region's present that negatively influence the possibilities of development patterns within these city-regions. For Chicago, There are city, county, township, and village authorities, yet none of them make coherent city-region development decisions. In order to better address these needs and coordinate efforts, a more effective form of regional oversight needs to be developed, the establishment of a city-region authority that coordinates development and the honouring of the four imperatives within communities.

With information-era economic realities making national borders largely economically irrelevant (Courchene 160), and with development patterns resulting in city-regions as entities distinct from cities in a globalized economic sense (Sassen 79), having a new definition of the city-region and creating a governmental entity that represents it is in the interest of city-region, its communities, its neighbourhoods, and its citizens. Thomas Courchene defines the Greater Toronto Area (GTA) based on a five-county measurement, one that also includes Metro Toronto, a city that used to be comprised of six independent municipalities (172). The process of amalgamation that eliminated these six municipalities (ibid) is important to remember, as there is precedence for expanding governmental structures and eliminating intermediary boundaries to create more effective governance. The complicating factor, as Courchene notes when referencing Jane Jacobs, is in the economic city-region, which can be said to extend eastward to Niagara and westward to Windsor and Detroit, Michigan. Here is an economic city-region that not only spans many counties, but even changes national authorities along the way.

To further complicate this idea, James Holston notes that, over the course of the last century, the primary mode of personal identification has been to the nation-state – but that this is changing with new economic and social realities. “In many instances, nations have become patchworks of culturally heterogeneous urban spaces” (325). He proceeds to then explain the political, social, and cultural effects this change has wrought, something that deals

squarely with most of the imperatives and further highlights their importance in an information-era economy. Extrapolating these ideas for the Chicago city-region, we see that effective bordering should center on the idea of the city-region, rather than (the less relevant here) national boundaries, but also with the complicating factors of overlapping city, county, township, and village boundaries. How can we best simplify this for the purposes of effective development?

The model provided by Courchene for considering the GTA and Toronto seems best, as Chicago generally can be defined by the seven counties that compose most of the city-region: Cook, Lake, McHenry, DuPage, Will, Kane, and Kendall. These are rough delineations, of course, as we noted with both the Morris-Ottawa-Utica and the Dekalb study regions: the influence of the city-region can be felt well beyond any such borders. Development decisions, however, have a correspondingly weaker influence on more remote communities, and so perhaps the seven-county area that comprises the general city-region boundaries of Chicago is sufficient for the purposes of setting up a regional development authority.

Rather than removing authority from existing jurisdictions, then, for the Chicago city-region, development decisions should be viewed as being coordinated on the city-region level through a regional development authority. This is not meant to trample on existing authority or sovereignty, but rather to prevent the need to redevelop sites due to uncoordinated attempts at

development. The purview of such a structure would be to consult with the communities within the city-region to develop a comprehensive vision of future development, establishing the imperatives as a necessity of balanced, considered development or redevelopment, and liaise with relevant experts to accrue a sense of what is possible in future development, and also to assemble experts for the Rogerian approach to development dialogue that will be discussed shortly. Such functions for the regional development authority should not add significantly to existing bureaucracy, and would, ideally, simplify development decisions while removing the competitive development races between communities that marked so much of the Interstate 80 corridor and inter-city competition for one-off events. A cooperative model is to the benefit of all communities involved.

In order to set up the development jury system suggested below, region coordination is essential. This proposal for a regional development authority is a first step in that direction, something that is an acknowledgement that the pursuit of community-appropriate and city-region-coordinated development patterns is in concert with the imperatives, and should be pursued over the perils of laissez-faire development as has been witnessed in some city-regions (see Feagin and Hill's treatise on Houston and Detroit as an example). This amalgamation of decision-making is more in line with the economic, social, political, and ecological realities evidenced within most city-regions, and is plain

to see within the Chicago city-region. The proposal for a regional development authority is a necessary one.

Moving forward from this regional development authority model of city-region government, the question that arises is what kind of work this government will do. It is all well and good to change the positions of government, but effective development changes depend upon the establishment of a system that will involve all stakeholders in land development decisions, including citizens directly and indirectly affected, and taking into account the realities of the dynamic of the city-region. What this project points towards is a jury system for land development and redevelopment, though one that differs significantly from the jury system that is currently in place for our legal system. Moving away from an Aristotelian model of rhetoric, we need to introduce the communication models developed by Carl Rogers in order to create a jury system that is equitable and not stacked against landowners, while still honouring the imperatives and the wishes of citizens. This approach, one that is cooperative and consensus-based, forms the core of the development jury system.

Of course, this proposal stands in the uncomfortable space of using an Aristotelian argument to counter the application of a jury system that is Aristotelian. The implication of championing the Rogerian cause is in building consensus and creating a development vision that is ultimately epistemic. In so arguing for a Rogerian approach, this is not the eradication of Aristotelian

elements, but rather is championing the cause of cooperation and compromise in making development decisions. Regardless of the distinctions between these models of rhetoric, the notion of the most good for the most stakeholders is central to the development jury system.

Paul Bator, in an explanation of the distinction between Aristotelian and Rogerian rhetoric in an article in *College Composition and Communication*, notes that a "Rogerian strategy is based upon a different set of conditions and assumptions [from Aristotelian strategies]... Carefully reasoned logical arguments, Rogers claims, may be totally ineffectual when employed in a rhetorical situation where the audience feels its beliefs or values are being threatened" (427-8). In this situation, an adversarial form of rhetoric, as we have through a plaintiff-defendant model in the legal system, would very likely lead to stalemate between stakeholders with opposing points of view where development decisions are concerned. Bator continues, "[w]hile Aristotle recommends persuasive control over the opposition as an aim of classical rhetoric, Rogers advises mutual communication" (429). Quoting Young, Becker, and Pike's work on Rogerian rhetoric, Bator quotes that the Rogerian rhetorician's intention would be to "'replace some feature of the reader's image, or add to it, or clarify a particular feature, or to strengthen or weaken it.' The goal of the writer becomes one of facilitating change by striving for mutual understanding and cooperation with the audience" (ibid). This last point made by Bator is critical to how we understand the development jury system, where

understanding and cooperation is key for citizens to progress forward in ways that honour the imperatives.

Maxine Hairston further elaborates this point, making note of how Rogers is an alternative to traditional rhetoric. Writing in *College Composition and Communication*, Hairston offers that the most basic element of communication is that “you do not convert people to your point of view by threatening them or challenging their values” (373). In further explanation, Hairston, too, cites Young, Becker, and Pike’s work on Rogerian rhetoric, describing their interpretation as one of “humane” rhetoric (ibid). Hairston then describes how her own work applies the Rogerian approach, noting that such an approach tends to be the most effective when traditional forms of argument prove most decisive, involving “racial and sexual matters, moral questions, personal and professional standards and behavior” (ibid). Indeed, these describe the elements that form the four imperatives, as moral questions form the core of strife surrounding development decisions. A Rogerian, cooperative approach that acknowledges that the intentions for all citizens involved is to benefit the city-region is essential in the decision-making process.

As a third explanation, Richard L. Johannesen discusses how dialogue and rhetoric operates in his article “The emerging concept of communication as dialogue,” published in the *Quarterly Journal of Speech*. He notes that, “[d]ialogue seems to represent more of a communication attitude, principle, or orientation than a specific method, technique, or format. One may speak of a

spirit of dialogue in the human communication process" (374). This is, in effect, the distinction that is necessary as we setup the development jury process, and one that partners with the Rogerian approach quite centrally. Johannesen, in fact, sites Rogers alongside Joost Meerloo, Eric Fromm, Paul Tournier, and Jack Gibb when listing theories of effective human communication (ibid). What follows from Johannesen is then a discussion of Buber's notions of existence being interaction, further cementing the importance of effective human communication.

This Rogerian approach to a jury system would be one that is fundamentally non-adversarial, then, and would be the proper approach to making development decisions with the previously discussed form of city-region government. As developed land has an influence on citizens beyond simply the landowner, it is essential to involve those citizens in the development process. In this setting, we must outline who would form the jury, how the process of dialogue would take place, and the effects of a decision, as well as the legal hurdles and moral challenges such a system sets out for us.

To borrow from its criminal system analogue, I am proposing a 12-citizen jury, one that represents local and city-region citizens, as well as experts from relevant fields depending on the type of development in question. The local influence of the development will be great, so therefore a substantial portion of the jury should be of local citizens: 6 of the 12 should be from the community in question, with at least 3 from directly affected neighbourhoods. This provides

an opportunity for local citizens, if they are uniform in their opposition, to create a tie in the jury process and for the city-region and landowner to find another path that is acceptable to all parties. Of the 6 remaining jurors, 3 should be citizens from other parts of the city-region, and the other 3 should be relevant experts within the areas concerned, whether they be industrial, ecological, social, etc. The result should be a committee that can fairly adjudicate on development matters while representing local citizenry and performing their work with access to and partially made up of relevant experts.

Rather than have an adversarial system with opposing rhetoricians attempting to knock holes in each other's arguments in an effort to "win," the purpose here is, once again, to reach a solution that is in the best interest of the landowner, the citizens, and the city-region as a whole. As such, several groups will have to be represented in the process of presenting information to the jury. First, the landowner must be present, of course, to present the plans for the site and how they envision it influencing the surrounding neighbourhoods, communities, and the city-region at large. This is information that should have been shared with the other presenters of the session, so that they may base their work off of the landowner's expectations. The community directly affected should then present, pointing out in what ways the proposed development is in line with community expectations, as well as ways that it is anticipated the development will positively and negatively influence the four imperatives on a community scale. The city-region government, as described in the previous

section to this one, would also present the benefits and detractions to the city-region as a whole of the development, keeping in mind any long-term plans for the city-region and how this development does or does not fit into these plans. By having these three stakeholders involved, presenting information, alternatives, and new ideas, a collaborative process can be established, one that, through the assistance of the jury, can arrive at development decisions that are guided by the neighbourhoods, the communities, and the city-region, as well as honouring the rights of the landowners in stride with the four imperatives.

Ideally, such a process would result in better development decisions, an engaged citizenry, and a sense of belonging and ownership within the community. This is, of course, just a skeleton proposal, one that envisions a development process that avoids the pitfalls of large-scale residential developments that are closed off from the surrounding neighbourhoods and commercial development that creates seas of parking lots between strip malls and big box store locations. There are specific rights ascribed to landowners that would need to be carefully reconsidered in such a process, and it should be acknowledged by all parties going into this jury process that the will of the landowner is at least as significant as the shape of the community and city-region. At the same time, however, having this kind of input can result in avoiding the development disasters that have been discussed throughout this chapter, ones that will require remediation in order to be line with the four

imperatives. A great deal of work remains to be done following the (re)formation of city-region government in order to make this system a reality, but recognizing the cooperative nature of a Rogerian model, as well as the need for the city-region to the neighbourhood to be involved in this process, creates a foundation for how development can be done differently, a central goal of this project.

Assembling a new model of city-region governance with a development jury system is a logical outgrowth of the attempt to honour the four imperatives and the realization that cooperation is the key to building effective, participatory communities. This model rather neatly handles the long-term economic, social, and political imperatives, though there are additional steps that can be taken to help protect the standing of the ecological imperative as well. The addition of legislative steps to enshrine the importance of biophilic design in future development plans would bring the ecological imperative to the fore, and at the same time, honour the other imperatives as well by emphasizing the importance of the connection between citizens and sites, places, communities.

Biophilic Design as Ecological Imperative and City-Region Necessity

Much the same as the development jury system helps a community to build in a way that is organically part of the existing neighbourhoods, biophilic design, literally designs that honour nature as an intrinsic part of our structures,

honour the places in which our developments exist, have existed, or will exist. Whereas the regional development authority and the development jury system have been balancing long-term economic needs alongside social, political, and ecological needs, implementation of biophilic design honours the ecological imperative and its relationship with the other imperatives. In other words, it starts from the opposite end of the economic imperative, but has no less influence on the shape of the city-region and effective global city-region development. In order to better implement such techniques, we must understand what is involved with biophilic design, what sorts of city-region solutions are available, and what site-specific solutions exist and how they can form part of a cohesive development plan.

Biophilic design is defined by William Browning as our deep attachment to natural forms and to nature itself (59). He cites a litany of natural products, from spidersilk to coral to other examples of how nature is able to produce in many ways that are superior to our man-made alternatives, and how we can enjoin ourselves to that process. Browning continues: "If we can shift our conceptions of the purpose of development to one that heals human and natural communities, uses nature as a mentor, and addresses occupants' physiological and psychological needs, then we will be on our way to integrating ecology and real estate" (60). Thus, with this description, we can see how biophilic design is not only an ecological imperative solution: it also helps to maintain the social imperative, and in the process, creates opportunities for action (political) and

interaction (economic). This understanding of biophilic design can lead to both site-specific and region-specific solutions.

Some examples of site-specific solutions offered through biophilic design come from the emerging picture of carbon dioxide emissions and the effects of low-density development. While the earlier literature review highlighted how such development is harmful in particular to the well-being of citizens, Douglas Farr illustrates this very clearly with two maps in his work *Sustainable Urbanism: Urban Design with Nature*. In this, the traditional picture of carbon dioxide per square mile is introduced, seeming to show the hazards of high-density development and how such areas are inherently polluted. With such a picture, the lower CO₂ emissions of the surrounding counties of the city-region of Chicago seem to be very appealing for a higher quality of life (27). Yet, when the data is examined on a household basis, it becomes clear that the low-density lifestyle generates significantly more in the way of emissions. Most of Will, Kane, and McHenry counties – the ones farthest from the core city of Chicago itself – have carbon dioxide rates per household nearly five times higher than within the borders of Chicago (ibid). This is a remarkable statistic, and demonstrates very clearly why site selection and site solutions are so important, in addition to the obvious city-region solutions as will follow. When discussing biophilia directly, Farr highlights the importance of individual sites such as walk-to parks, and the way they enhance the lives of citizens within adjacent neighbourhoods (169). Randall Thomas and Adam Ritchie, in their treatise

"Building Design" from *Sustainable Urban Design: An Environmental Approach*, suggest that this approach creates a kind of locality of architecture, moving away from a trend in architecture to design the building and then find the site. This means that there will be more "regionalism" in architecture, as buildings become sensitive to the ecological footprint of given sites (42). Timothy Beatley, in *Green Urbanism: Learning from European Cities*, notes that desealing our structures and taking advantage of natural drainage is one way to build with nature and also to create less of a disruptive presence in our development (219). In *Living Systems: Innovative Materials and Technologies for Landscape Architecture*, Margolis and Robinson highlight many sites and their use of biophilic elements, including MFO Park, a site designed by Raderschall Landschaftsarchitekten AG + Burckhardt & Partner AG. Here, a structural skeleton has been erected, and the structure itself is then being bound together by vegetation, originating from vines along base supports and engaging vertically to create an enclosed space (16). The effect is both physical and psychological, and in time more of the structure will become enclosed, while using the most innovative and yet basic elements for construction. This is but one example of one technique in one site, but the point is that the opportunities for individual sites are quite striking, and they should be guided by the ecology for a given site, using appropriate materials based on climate and topography to create a sustainable site that is pleasing to citizens and occupants.

Biophilic elements are more easily applied across a city-region, as developing more than one site with these concepts is simpler than ecologically engaging each site individually. Richard Register, in *Ecocities: Rebuilding Cities in Balance with Nature*, sees a radical redevelopment of Berkeley, California as a series of enclaves forming a city, but with natural space in between for creeks to run and the cultivation of food. The overall pattern is remarkably similar to the previously explored city-region node structure, with the density of some areas increased, while the land in between is repurposed from low-density residential and commercial into preserve space for diverse human use (328). This approach takes concerted steps to redevelop the existing city-region into something more ecologically sustainable and in concert with climate and topography; it would have to be agreed upon on the city-region government level and then applied in the development jury system to be effective. Newman and Jennings, in *Cities as Sustainable Ecosystems*, see the city-region as a system, and encourage systemic solutions to city-region problems (92). This is in line with the city-region government solution, and highlights the need to have a broad view over a long timeline in place. Ultimately, these design ideas for the ecological imperative and biophilic design are calling for a broad understanding of place, interconnectivity, and the ways sites and city-regions are unique. In other words, the style of building taking place that aims to put nearly-identical construction anywhere regardless of place must become a

model of the past, with models that honour the ecological imperative the path for the future.

Biophilic design, then, must be integrated in city-region development and redevelopment plans to honour the ecological imperative, and by extension, help to perpetuate the long-term economic prosperity, social health, and political access of city-regions. For the Chicago city-region and this study, this raises the question of further accentuating the forest preserve ring around the city, making it a city-region government matter of developing stronger nodes, eliminating further low-density development, and requiring the consideration of native ecological conditions for any development or redevelopment. The gap between the Thornton and Bremen study regions, for example, would be further accentuated, ideally reducing the need for regular transportation use and encouraging the overlapping of life patterns. Another example is Naperville, with a downtown core that is acting as a node, though that could be further adapted to meet the standards of biophilic design. Conversely, the sprawling edges of Naperville would have to be constrained and redeveloped to be in line with these goals.

These are two minor examples of what could be done within the confines of this project with biophilic design, but the political structures and will must be present before such approaches can be adopted. While the hurdles to this are not great, it is a matter of awareness and desire to live in line with these imperatives that must take hold first. Biophilic design, by its nature, must be

demonstrated to be understood, so in addition to being a universal recommendation of this project, is it also recommended that city-regions experiment with designs that could act as demonstrators, showing the possibilities and encouraging this building style on a site and neighbourhood-specific level.

Universal Solutions Conclusions

These universal solutions are universal only in the sense that they are not specific to the Chicago city-region, and are a part of this project that could be applied across great swaths of North America. Indeed, with some of the frightening environmental statistics bandied about on a daily basis, the need for sustainable, climate-specific design seems to be great, and having the political structure in place to guide how sites are developed or redeveloped is a first step in designing city-regions in line with the four imperatives. There are, of course, many hurdles involved in making these conceptual suggestions into action, but the direction is one city-region development simply must take.

Conclusions

Many steps must be taken within the research corridors of this project, and the types of development and redevelopment challenges range from site-specific to entire study-regions. What is certain through this process is the need to engage citizens with the changes they wish to see in concert with the

changes that simply must be made to ensure the long-term health, sustainability, and even existence of the city-region. This means that the imperatives act as guides, a conceptual framework in which citizens, governmental agencies, landowners, and experts may work to make development and redevelopment decisions. This is, again, a first step, but one that points a path forward rather than continuing the current way of citizen disengagement, honouring minimal imperatives, and creating ecologically unsustainable communities. The purpose of this chapter has been to demonstrate that there is a better path forward, and it is down to citizen engagement and political will to make it happen.

Chapter Six

Discussion and Conclusions

This work will never be complete, just as this work, academic in nature, a collection of text, is not a substitute for action. As a project, however, this work must be tied together as much as a strip of asphalt and concrete called an Interstate highway ties together so many of the communities studied herein. In order to conclude in a manner that provides avenues for future work by scholars from varied fields, I will provide a discussion section of outstanding issues unable to be effectively contained within this research, as well as a focused conclusion for the purpose and fruits of this project.

Discussion

There are many questions for research related to this project that are simply too big to be included. Most of them would make for research projects in their own right. For this discussion section, I have included several that came up during the course of this investigation, and then consider how I see them as being related and where they fit into this model of sustainable city-region development and the honouring of the imperatives. Each would require additional research to truly do justice, and so included here is only a cursory examination.

Renewable Energy Integration

One ecological solution that should be explored in future work is the process – technical, political, and ecological – of installing renewable energy sources within developed and redeveloped sites and neighbourhoods. Taking some of the emphasis off of large generating stations and centralized capacity makes sites and neighbourhoods more self-sufficient, an important attitude to have if we are going to construct in a way that honours the characteristics of individual sites and how they fit together for citizen life patterns and sustainable practices. There are many elements that would need to be brought together in this work, from the engineering work involved in, for example, the generation of electricity, to creating the social and political will to make such practices part of the building code. Theorizing this movement will go a long way towards making it a reality.

Architecture and Climate

Based on the book of the same name by Torben Dahl, the relationship between comfort and climate is underexplored, just as the reasons why we place ourselves indoors, separate from what we see as “nature” as Abram would see it, are under-considered in the humanities. This kind of context-heavy form of development is an important component to future design decisions, especially with climate instability rapidly becoming a reality for a majority of the world’s citizens. Designing sites and neighbourhoods that work with the natural terrain

and the climatic realities of the place are essential steps to avoid unnecessary redevelopment in the future.

Political Redevelopment and Remediation

Many of the proposals throughout this project will require a great deal of political will, and redefine some rights already given to individuals and governments. Rather than speaking in revolutionary terms, however, the steps that need to be taken to make these visions into reality are evolutionary in nature. For example, in the United States, the idea of personal liberty needs to come under some examination, as changes to property rights and the like are necessary to enact meaningful forms of development policy. Also, resetting the idea of boundaries and eliminating redundant layers of government and bureaucracy is a necessary, though difficult, step. Handling such changes in a way that is fair to all citizens is a must, and this direction will be fruitful for the further development of the political imperative.

Economy of Stability

As just general perception, we seem to be on course with an economic system that is dependent on growth rather than a sustaining model, something that, with finite resources, seems a foolish course to take. As part of the long-term economic imperative, it would be fruitful to fully articulate how such a system designed for long-term stability would operate, as well as how we would get from our current growth-driven system based on quarterly reports to such a system of stability.

Population Control

The elephant in the room when it comes to sustainability is broaching the topic of population control. The human population of Earth has massively exploded in the last century, and the way we are developing and attempting to live is simply unrealistic. China's one-child policy, if it were adopted worldwide, would see a dramatic decrease in population over the next century. While several projections claim that population will peak mid-century around 10 billion and then begin to decline, at current consumption rates, a larger population is very likely to be unsustainable. Finding an equitable method of population control is a must.

A True Information Society

Unsupported by anything beyond observation, it has become apparent that the promise of an information society based on around the free exchange of ideas has been somewhat muted by the desire for the devices that are supposed to assist us in such communication – including the machine upon which I am writing this. After acknowledging that, towards what are we still progressing? Is it a further increase in quality of life? Newer gadgets? Given the uproar at this time over progressive taxation and increasing the marginal tax rate for the highest earners, it is unlikely that the goal has become a higher standard of living for all. For the information society, then, what is our goal?

Conclusions

These questions primarily come from extensions of the imperatives beyond the scope of this project, and also ask questions about the future shape and need for development and redevelopment. As a great deal of work needs to be done solely on development goals and practices, these are best left to another venue. They are, however, intrinsically connected to the same questions of the imperatives, our life patterns, and how we choose to shape the physical space around us. As such, they cannot be ignored.

Conclusions

This project has had lofty goals throughout, though the scale of the work herein only helps to underline the need to engage other fields beyond the humanities in order to develop truly effective development and redevelopment strategies. Beginning with the foundation in the humanities, the purpose of this project has been to develop imperatives to consider in development and redevelopment within contemporary city-regions. Establishing these further through works in architecture, urban planning, and associated fields, this project then also looks at the nature of the contemporary network of global city-regions and the way political and economic borders fluctuate. By understanding this interaction, it is possible to move on to this project's site, the Chicago city-region and specifically the Interstate 80 and 88 corridors. By analyzing each of the study regions along these corridors, it is then possible to identify places and

spaces where the imperatives could/should be applied, and through such action determine what sorts of mechanisms and guidelines need to be in place for development and redevelopment. In other words, this project is acknowledged to be a beginning, not an end.

In order to understand the nature of the places in this project, it was first important to consider the meaning of place and the relationship of the citizen to place. For these concepts, this project leaned heavily both on Martin Heidegger's ideas of enframing and standard reserve, as well as on the massive history of place in philosophy as meticulously researched by Edward Casey. The former does much to explain both how we may view sites (for their purpose for humans, potential versus actual) and how we may consider the ideas of preservation and environmentalism. Casey, meanwhile, highlights another important point, one revealed by Descartes: that place as an idea is context dependent, as was noted in Chapter 1. This is crucial as well, as even though this project notionally mentions universal solutions, great pains have been taken to make clear that their application is dependent on the nature of place. This is but one example among many from Casey, including contributions from Leibniz, Iragary, Foucault, and other pillars of humanities scholarship. From this base, extrapolations on the nature of the four identified imperatives can be made.

The long-term economic imperative is largely informed by the work of Saskia Sassen, John Friedmann, and Sir Peter Hall. Each has furthered the thesis of the global city and global city-region, identifying the interlocking

network of city-regions that form the core of global economic activity. Yet, their work also highlights how every populated place has elements of the global economy present. The distinction between information and industrial economy becomes relevant here as well, with global city-regions being known for their financial and information activity, as well as tourism and education activity. Understanding the nature of the global economy places urban planners in a position to develop in such a way that encourages sites and structures that are economically relevant for the long-term.

The social imperative is informed by, amongst others, the work of deCerteau and his colleagues in the second volume of *The Practice of Everyday Life*. This imperative is centered on understanding citizen life-patterns and how these decisions influence development, and vice versa. By understanding these life-patterns, it is possible for developers to see how potential development and redevelopment decisions to make certain the daily needs of citizens can be integrated into their life-patterns without isolating them from each other, thus honouring the social imperative.

The political imperative is largely informed by Hannah Arendt's notion of action in context with work and labour. By understanding how citizens can engage in action through the course of their daily life-patterns, citizens can begin to develop municipal structures that are responsive to their needs and are relevant to economic and demographic realities. Doing so will also alleviate

some of the overlapping authorities currently in place within many city-regions, ideally streamlining political structures to be flexible and competitive.

The ecological imperative is largely informed by the work of William Cronon and similar discussions of the difference between environment and ecology for the purposes of this project. Cronon's work identifies the preserve space ultimately as human space, and through that frame, establishes an opportunity to discuss what sorts of preserve space we should maintain and for what purpose. This is not to say that leisure or preservation are unworthy goals, but that they should be identified as such, rather than by defining some space as something different, outside, non-human. Eliminating such a romantic notion of the unspoiled other opens the door to discuss biophilic design and other ecological steps that aim to sustain the human presence long into the future.

With these imperatives established, it becomes possible to examine the research site, the Interstate 80 and 88 corridors. By dividing these corridors into study regions, there is an opportunity to focus on communities. These are, of course, artificial distinctions, but ones that are designed to make this project manageable.

The Interstate 80 corridor, with its four regions, is the trans-continental highway compared to its counterpart for this project, and features more established communities along its length. The Thornton study region features a combination of urban structures, preserve space, and, of course, extraction

industry sites. The challenges in this study region relate to access and connection, something that seems counterintuitive immediately along a major highway and with close access to several more. The Bremen study region shows a contrast between old and new growth, with grid-style residential neighbourhoods forming the core of communities like Tinley Park, while the periphery features limited-access residential developments, with minimal mixed zoning. This study region presents a laboratory of policy and action as a result. The New Lenox-Joliet study region also features a contrast, though it is one of two communities attempting to redefine themselves in the information-era economy. While New Lenox has gone from sleepy railroad town to residential part of the Chicago city-region, Joliet has been struggling with the transformation of industrial city to city-region component. Understanding these processes will help to understand both newer, low-density residential areas as well as how to approach older industrial cities and repurposing them for contemporary economic realities. The Morris-Ottawa-Utica study region is instrumental in understanding the forces at work on the periphery of the city-region and showing the futility to assigning random borders to such a construct. With autonomy increasing from east to west, this study region asks questions that are important of policymakers and planners, as well as the consumption of resources required to keep a city-region functioning. Overall, the Interstate 80 corridor features the kind of variety one would expect from a city-region radius,

and the communities contained therein provide a wealth of information for understanding the function of the four imperatives.

The Interstate 88 corridor is a contrast to Interstate 80, but also raises similar development questions, ones that suggest the imperatives operate well in multiple settings. Starting at Oak Brook, we can see a study region with extensive commercial activity, isolated from residential development. This results in automobile-dependent life-patterns, something that could be remediated through the introduction of residential development within the commercial districts. Oak Brook highlights the importance of mixed-zoning development. The Lisle-Naperville study region continues this path, though with Naperville in particular, we have the opportunity to see a community within a study-region that has a vibrant, successful downtown that overlaps many life patterns. Yet, on the periphery, Naperville engages in the same kind of limited-access residential development and strip mall and big box-style commercial development that can be seen in any number of contemporary suburbs. The question that arises is the nature of the forces that results in this periphery development. The Aurora-Batavia study region has similar questions, especially with Aurora. As a former industrial city, Aurora has faced many of the same challenges as Joliet, and yet is further along in repurposing, with many service and education institutions inhabiting the downtown district. Batavia faces the challenge of forming a sense of community identity when the main regional transportation arteries bypass the town. This is a challenge for establishing

overlapping life patterns within the community itself. The Dekalb study region raises questions both economic and political. The communities outside of Dekalb that are connected primarily by rail seem positioned to only take advantage of agricultural opportunity – though this does appear to be a stable path. Dekalb itself is home to a major educational institution, and so it has the benefit of access to the Interstate. The political question arises from Dekalb being the only point of contact with Interstate 88 between Aurora and Rochelle/Interstate 39. While Interstate 80 has plentiful exits, Interstate 88 seems reserved for fewer citizens. Ultimately, Interstate 88 asks the same questions as Interstate 80, and yet the study regions are remarkably different, offering the opportunity to ask the same questions of new places.

These study regions within the two research corridors then provide a venue for suggesting future development paths. These are not requirements, but rather are applications of the imperatives in a way that is designed to be to the benefit of citizens. This step was extensive, but reveals that many of the solutions are similar, including mixing zoning together in closer proximity and limiting isolation of citizens from each other. Designing sites that better honour the ecological imperative – through both site-specific sustainability and the limitation of energy consumption through transportation – is another step that was repeated throughout this section. These ideas ultimately led to the two universal solutions, ones that appear to be applicable to all populated places.

The first universal solution, the development jury system, is one designed to be more realistic about the nature and impact of development decisions and how citizens should be involved in the decision-making process. This requires a reimagining of the nature of property ownership and modifications to the organization of city-region government, resulting in a regional development authority. While this is not a transition that would be expected to occur quickly, it is one that would honour the imperatives and take concrete steps to making them effective.

The second universal solution would be to require integration of biophilic design into site-specific plans. By not only building in a sustainable way, but also in a way that is responsive to specific climatic needs and integrates local ecological elements, sites are more likely to be sustainable in the long-term, honouring not only the ecological imperative, but the others as well. By integrating such elements into building practice, the footprint of development is decreased and the connection between citizens and the natural is increased. While Cronon points out that there is no such thing as non-human space, Abram is also correct in pointing out that, in the last century, we have lost contact with the natural world that has been our birthright for millennia. Biophilic design, integrated into city-region development and redevelopment, aims to reestablish that birthright.

The suggestions for redevelopment and remediation within this project are exactly that – suggestions. More than anything, they are supposed to

further the conversation on how we live and what we can do better. They cannot be applied without the will of citizens and the guidance of elected and appointed leaders. Yet, by balancing the imperatives, there is a great deal of positive development that is possible.

This project does not exist within a vacuum. Rather, it is more apt to consider it as a structure, built for multiple purposes, but also existing in a neighbourhood. It would be of no use for the work here to be contained solely within this mythical structure, just as it is unhealthy for a neighbourhood to have its citizens contained within their respective structures. What this project needs to be relevant is a neighbourhood of work, building onto the ideas and suggestions here, as well as other viewpoints, and creating new understanding through the intermingling of the life patterns. That is the essence of the city-region experience – the castle on the hill, solitary and alone, is a myth. Instead, it is the collaboration of the everyday neighbourhood, the structures aiding these connections, that is most important, for this scholarship and for the city-region. This is, then, not an ending, nor, with added conceit, should it be considered the beginning. Rather, as every part in such research, as every structure added to a neighbourhood, tends to be, this is another piece of the middle, a brick along the path.

Coda

At the end of my field studies, I have tended to drive west – usually on Interstate 88, as my former home and easiest places to stay are along I-80 near Tinley Park – I make the turn north onto Interstate 39 near Dekalb, Illinois, and make my way out of the state, cutting through central Wisconsin to my home in Upper Michigan. There are times, though, when adventure wins out over haste, and I turn left, occupying that hinterland between I-80 and I-88, a stretch of road I remember more for where I was going than where I was. Here, with the Sun melting from white hot to an evening orange, baseball on the radio (and in this part of the Midwest, in the evening, with the wonderful wobble of an AM signal, games are on offer from Chicago, Cincinnati, St. Louis, Cleveland, Minneapolis and Pittsburgh), I look for a truck stop to stretch my legs, grab something to drink, stand on the edges of the parking lot and watch the brightest of the night stars poke through the last fading azure layer of evening, and take inventory of the day.

Here, on this otherwise quiet stretch of highway, with 18-wheel carriers of economy flashing by with their distinctive roar, I can make out the wind farm in the distance. It isn't the largest even in the Midwest, but it is substantial, with dozens upon dozens of red warning lights for the odd light aircraft beaming clear out to the horizon. Most are moving, despite the minimal winds on most

of these summer nights, very directly giving life to the buzzing sodium lights bolted to walls and pillars behind me.

It is here that I find hope, that I remind myself that even so close to a city with such horizontal expansion and global aspirations – the reddish-orange glow on the eastern horizon gives away what is just beyond the curve of the Earth – there is a need for these things, this power, these fields of food and raw materials. Further south there are oil derricks – small ones, of course – pulling the black sludge that is in its closing act of civilization's play. These fields are turning from one provider of energy to another.

The entire scene provides the metaphor that has otherwise eluded me in this project. How else could such a collection of stories, of life patterns, of history, of future come together other than like this? Between the corridor built for the industrial patterns of a previous age and the corridor built to bring the promise of tomorrow, as well as the growth patterns associated with it, we have where they both end, in production and consumption and the economy of the things we need for our civilization.

I finish this project convinced that there is the social, economic and ecological will needed to enact the changes we need. And while I am wary of the political will (to say nothing of a system that rewards short-term promises), so many professions have come together to propose solutions, ones that can make a difference before some modifications to our planet are permanent. I am

hopeful, standing here, the night air as warm as ever, that we have turned a corner in our development.

Looking at the prices on the gas sign, perhaps some of these choices are made for us, with long commutes made less desirable. Regardless, we seem to be in motion towards a renewed sense of community, one that balances imperatives and has more autonomy – by necessity – than in the past.

As I close my car's door, the cool air of the car pulling at the sweat of a Midwestern evening, I turn back north, back to my community, my home. While I will again pass Interstate 88, I will always be between it and Interstate 80 and what they represent, for past, present and future. It's where we are and it is where we must make the decisions about our future.

All of us.

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Soundtrack

For the film adaptation of this research

Interstate 80 Corridor

Thornton Region – “Never Let Me Down Again” Depeche Mode, Music for the Masses

“Out of Hand” Mighty Lemon Drops

Bremen Region – “Lazy Eye” – Silversun Pickups, Carnavas

Joliet/New Lenox Region – “Same Beat” – People Under the Stairs, Fun DMC

Morris-Ottawa-Utica Region – “Beg, Steal or Borrow” – Ray LaMontagne & the Pariah Dogs

Interstate 88 Corridor

Oak Brook Region – “Closed Shoulders (cLOUDEAD Remix)” – Boom Bip, Corymb

“Foil” – Autechre, Amber

Lisle-Naperville Region – “Inside” – Moby, Play

Aurora-Batavia Region – “Faded Lines” – The Secret Machines, Ten Silver Drops

Dekalb Region – “Thinking About Tomorrow” – Beth Orton, Pass in Time

Miscellaneous

“City Lights Reflection” – William Orbit, My Oracle Lives Uptown

“Reintegration Time” – Shout Out Out Out Out, Reintegration Time

“Satellite Anthem Icarus” – Boards of Canada, The Campfire Headphase