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content

INTRODUCTION

He who comes into the world so as to upset nothing merits neither respect nor attention.
René Char

Arguing for New Forms of Inquiry

introduction by Antonio Petrov

Over the last century Daniel Burnham's city has experienced unprecedented urban and regional transformations. Known as the "city of big shoulders" Chicago and its rich history continue to cast infinite stereotypes on the cultural geography of the city, region and its hinterland. However, the meta-geographical binarism of the urban-non-urban divide largely remains unknown. The truth is there is a spatial phenomenon of much larger implications that merits greater attention. The "thickness" of the Chicago-Great Lakes region has not only historically been constituted as a strategic territory that converges complex ecologies and transnational infrastructural systems, more **than ever it continues to be a critical space; the enormous Great Lakes Water body, the vast hinterland with its fields for Resource and Food production, the grand-scale Infrastructural Networks, as well as the** popularized Anthroprocene shed light on the larger problematique of the region. Opened through research and urban theory the discourses that currently underpin our understanding of urbanization, however, lack reflection and continue to circle around an irrefutable reductiveness of the subject matter. New concepts and thoughts are needed, and may be useful as heuristics or models and metaphors towards a new

epistemology of the urban. Is this a good moment to begin questioning inherited epistemological assumptions to establish a more nuanced understanding of what we refer to as urban or non-urban? What are these trajectories suggesting for design, the informants of design, and future practice? What are the social, economical, political, and ethical frameworks we operate in? How do we communicate within the discipline and how do we communicate outside of it? What language are we using? What spaces does it produce?

With the launch of the Chicago Expander (program) at Archeworks in 2012, we saw the opportunity to examine the implications and the various relationships that have developed new forms of urbanization, while scrutinizing architectures colonized frontiers. In workshops on Energy, Economy, Agency, Transportation, Water and Food we began to question, provoke and supplant the nature of old dualisms and rethink inherited epistemological and methodological assumptions of the city as a singular, bounded and universally generalizable settlement type. [Brenner Epistemology] For us it was about situating emerging theoretical, philosophical and conceptual apparatuses to engage with challenges outside of traditional spatial and ontological frameworks in response to immanent issues.

At stake are Chicago's urban ecologies and the territory that define it, not only in terms of their morphological characteristics, but also in terms of the metamorphosis of the agencies that shape it. In a world that is increasingly recognized as a hybrid between one or the other, urban or non-urban, or as a matter of fact, nature (phisis) and city (polis), the Expander recognized, but also aligned between the complex and emergent nature of Chicago.

Historically, Chicago has been a hotbed of action, architecturally and otherwise. Many views and architectural legacies emanated from the city, but not always in theoretical nature. Straddling between theory and practice, and the academy and praxis, the Chicago Expander leaned into Stanley Tigerman's legacy at Archeworks and expanded on the trajectories of his critical relationship with the city and the discipline. He was never satisfied with "preconceptions that might have favored any one particular direction over another." [Archeworks Papers Volume 1 Number One] In fact, Stanley's endeavors always pointed towards the "third condition". It was never, yes or no, here or there. Instead, alternative thinking and alternative designs emanated from Archeworks' "bowels". The Expander, arguably, found its "timbre" in Stanley's legacy and the "pudding" of architectural, urban and regional discourses. Published under the rubric of Archeworks Papers this publication reflects on the two years of the Chicago Expander and

critically examines our approach as a “do-tank” and places it into the “educational firmament” of Archeworks. Collectively the works we are presenting advance and capture our thinking about design and “the informants of design in an era that has, to large extend, accepted the ideas of complexity and adaptability and integrated these into its attendant practices.” [Projective Ecologies P. 18]

We also wanted to critically examine research and teaching methodologies in order to better understand how they could help understand how contemporary urban theory and shifts in the architectural practice affect our work.

The frameworks we set with the Expander instigated new political and social realities, as well as recovered regional aesthetics that derived a new legitimacy from the (causal) relationships between what we identified as microgeographies, infrastructures, ecologies and demographic; flows that are crucial in recovering new meanings of urban and non-urban configurations that greatly affect Chicagoland as a strategic region. This not only postulated a new level of significance for the readability of the “urban fabric”, [MERRIFIED] but it allowed for a critical look into how contemporary urban theory unfolds in questions immanent to Chicago (and beyond) recovering trajectories of research and agency we might suggest for future practice. As a matter of fact, some of our findings, methodologies, as well as our funding model, gave us a better sense of how currently the agency of architecture plaque architects, planners and designers on a regular basis.

DISCOURSE questions

General statement

IKER GIL AND ANTONIO PETROV

In response to the ecological, economical and cultural challenges of the 21st century, we, at the Chicago Expander at Archeworks, aim to bring together thinkers, designers and practitioners from a variety of disciplines to develop new discourses on architecture, the city, and regionalism at large. The idea is to reconceptualize and challenge positions on the city with the aim to recover new spatial morphologies and expand our repertoire in understanding the interrelationships between cities, regions and regional ecologies, hinterlands, and nation states.

#1

In recent decades the world has been described through established readings of architecture, the city and nation-states. However, discussions of globalization and new spatial formations have developed an increasing number of positions that are responding to "the complexity of the problem" with more complexity. With the world on one end, and architecture on the other, perhaps more than ever we are facing the problem of how to engage with issues that span across national, even disciplinary boundaries. It seems as if the true definition of cities and regions as systems of interrelating systems is getting harder and harder to decipher, and the speeds at which these shifts and resulting spatial consequences occur have also postulated a new level of significance for the readability of regions. The lack of awareness of "the emergence of indefinable, shapeless regions devoid of identity"1 underscores how current region-making processes all over the world are becoming increasingly transitory. Recent political conflicts are underlining how cities and regions are contributing to new readings of what is at stake in regionalism and urbanism on a much larger scale. Giorgio Agamben describes this condition in The Endless Crisis as Instrument of Power using an interesting analogy of an ill patient going to the doctor:

"'Crisis' in ancient medicine meant a judgment, when the doctor noted at the decisive moment whether the sick person would survive or die. The present understanding of crisis, on the other hand, refers to an enduring state. So this uncertainty is extended into the future, indefinitely. It is exactly the same with the theological sense; the Last Judgment was inseparable from the end of time. Today, however, judgment is divorced from the idea of resolution and repeatedly postponed. So the prospect of a decision is ever less, and an endless process of decision never concludes."2

Is the city of the twenty-first century radically being transformed by the very means that make it?

And is this a decisive moment in which we have to decide whether the patient is sick, chronically ill, or is going to die?

#2

The distinctiveness and the meaning of region—whether considered global or regional—are no longer defined by its natural frontiers that function as interpreters of signs and symptoms of historic and cultural values. The liquidity of frontiers in this globally uncentered Kulturraum are what offer new understandings of active limitations and a new sense of scalar dimensions within the global territory. The complexity of the issues and conflicts—climate, the environment, and other new parameters—make it difficult to clearly differentiate the scalar frames that are based on cultural and economic constructs operating. Within these epistemological frames the study of cities, regions, and worlds (within the world) provide us with morphologies of what a newly unfolding city/region can be today.

What are the epistemic frameworks in which you aim to recast cities, regions, and hinterlands as a spatial framework to bring new issues into focus that will allow us to explore unforeseen proximities between concerns separated by space and time?

#3

We are also interested in recovering subsets that make the urban and regional fabric (including the hinterland) through the eyes of agency. After over six-decades of mass-consumption and two decades of financial capitalism it appears as if we have lost the ability to critically mediate between ethical positions and aesthetic formulations. With the decisive battles of the future for the quality of live fought in the cities and its regions we are asking for a renewed advocacy of spatial practices.

At question are the ramifications on the planets environment and human relations. What are the strategic issues we should target for the future? What is the agency for these outcomes to be 'positive?' Has there been agency in consumerism, commercialism, capitalism, and subsequently in sprawl, suburban developments, malling, infrastructure, and as a result in extensive infrastructural projects? Is there an agency in how we strategize growth, land-use, density, transportation, and technology? Or how we make and shape social, cultural, political and ecological systems? Can we recover scale and its limits in order to understand boundaries and jurisdictions that depend on how to hold a heterogeneous contemporary city together? Is there agency in securing our resources for the future? And how does this relate to city design and setting structures for growth that will guide investments, both for the public and private sectors organizing sustainable developments for future cities?

1 Thierstein, Alain, and Agnes Feorster. The Image and the Region--Making Mega-City Regions Visible! Baden: Lars Muller Publishers, 2008, p. 228.

2 Agamben, Giorgio. "The Endless Crisis as an Instrument of Power: In Conversation with Giorgio Agamben." http://www.versobooks.com/blogs/1318-the-endless-crisis-as-an-instrument-of-power-in-conversation-with-giorgio-agamben.

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It seems to me that each time we respond to an urban 'crisis' with a novel 'urbanism', we not only reproduce the urban in the guise of a reformist novelty, but we also cover over the very real (i.e. political) crisis that is urbanization in the first place—a crisis that is perhaps finally becoming visible through something like climate change.

ROSS EXO ADAMS

#1 It seems to me that the common root of both questions lies in our perpetual obfuscation of the actual problem of the city as well as its reproduction. More of-ten than not, when we qualify a certain problem over and over again by the word 'complexity', we are either using the wrong frame to understand it or we are framing the wrong problem altogether. This is certainly the case with 'globalization' and I believe it is very true of the way we talk about the urban (or urbanization) as well. With very few exceptions, we continue to address this category as a bizarre condition at work 'out there'; something that seemingly we have no control over, almost as if a force of nature. As a result, we perpetually attempt to know it in its statistical consistency, rather than to try to come at it from any other angle. Very much like the way crisis has become a permanent condition of the present, the urban too appears as something, which we can only access intellectually and practically in the immediate present. Epistemologically, it would follow that urbanization has no history: very much like the weather, it simply presents and re-presents itself to us as an endless set of complex data whose visibility is manifest in the changes that we, as urbanists, are condemned to monitor, measure, compare and map out. By framing the urban in this way, we're only ever able to represent it through a field of growing complexity while at the same time we prohibit ourselves from imagining any other form of analysis. And certainly in doing so we preclude the idea that there can actually be a history to this spatial condition at all. In such a perception, while the urban appears as a vastly infinite system of endless complexity, it is simultaneously an extremely narrowly defined category at the same time.

Indeed, it is a problem of discursive loyalties as well. That is to say, who can legi-timately speak about the urban today as an object of analytical, theoretical, criti-cal inquiry?

Obviously Geographers and Sociologists have a certain claim to the urban and one could add of course Architects to this group as well. In either case, one of the principle ways we tend to frame questions about the city, the region, urbanization, etc. comes from the work of the Chicago School of Urban Sociology in the early 20th century (Louis Wirth, Robert Park, Ernest Burgess, Roderick McKenzie, et. al.). They began by the assumption that the city was a concentric model organized around a fairly bourgeois structure of labor in which social and economic forces form the basis of order, setting the stage for a purely empirical form of analysis to address the city from the start. From here, they set about to understand how this model changes—how it grows—again through empirical tools. Decade after decade, however, the sociologists and urban geo-graphers who took up this project would find themselves constantly needing to update the model. So while we start with something somewhat tame and concentric like 'metropolitan urbanization', we soon see that it must be replaced by 'regional urbanization'. Then, when this model is insufficient to characterize what is happening elsewhere in the world, we have to now speak of 'super-regional urbanization', then 'mega-regional urbanization' and so on. And when the metropolis is no longer an adequate system, we have to supplant it with the 'megalopolis'. Today of course Neil Brenner and Christian Schmidt have made claims to the term 'planetary urbanization' signaling the apparent endpoint of this lineage, which they render through beautiful GIS maps and other forms of data.

So we constantly find we need to change the scale of our analysis, and each time we do, we are shocked to find out when it becomes insufficient to describe the next thing that happens 'out there'. But not only that: we also find ourselves amazed with the strange new formations that seem to contradict the friendly little bulls eye of the Chicago School. So, somewhere in the eighties, we discover how there is no longer a single centre anymore and that now the centre is multiple and in fact lies in the periphery. Ed Soja famously named this condition—again referring to our friends in Chicago—the 'Exopolis'.

While we architects perhaps don't have as clear a discursive model to rely on like that of the Chicago School, we certainly treat the urban in similar tones of bewilderment. One only has to recall Rem Koolhaas' forays to Lagos, to the Pearl Delta, or to the Gulf to realize our own predilections for the bizarre, the abnormal, the extraordinary. The generation of 'research' that emerged alongside and eventually superseded Koolhaas' own project all seemed to adopt the same condescending gaze into the 'strange' parts of the contemporary world, again 'out there', where urbanization looks so drastically different from that of Europe.

In either case, we consistently end up treating the urban as a system bound up in other systems whose complex logics may never be knowable. Only its changes, abnormalities, imbalances or general newness can be

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grasped and only through a kind of perpetual survey of the present. Discursively, you could say that we've hardened a certain limited perception of the urban around the banalities of its own spectacle.

This tendency is not limited to the analysis of the city or of urbanization; it also predefines the kinds of possibilities for our intervention in the urban as a result. And this is where we can tie back in to crisis. Because the principle way, which the urban is made visible to us (through its abnormalities, its accelerating rates of change, its supposed contradictions, etc.), it lends itself to be read as an arena of crisis. Of course, this is only possible if our definition of crisis is, following Agamben (who is following Koselleck), a liberal catchword signaling an apolitical moment of whatever instability can be used to suit a given interest. In this way, crisis, far from signaling an immanent political decision (war, conflict, revolution) is the rhetorical means by which to advocate for a limited reform. We see this in the endless parade of 'urbanisms' that appear each year, each one attempting to address a specific 'crisis' with its purported program of reform. The problem with this is not that these individual 'crises' in themselves aren't real conditions, but rather that perhaps what we mistake for crises are in fact merely the multiple symptoms of a true crisis which has yet to become visible as such.

It seems to me that each time we respond to an urban 'crisis' with a novel 'urbanism', we not only reproduce the urban in the guise of a reformist novelty, but we also cover over the very real (i.e. political) crisis that is urbanization in the first place—a crisis that is perhaps finally becoming visible through something like climate change.

For me, all of this suggests that maybe we've been looking at things in the wrong way all along. It always surprises me that, no matter how much interest can be generated around the question of the urban, almost no one has thought to frame it as an object of theoretical inquiry in itself. And this not only is a question of complexity here, but it comes back to our disciplinary enclosures. That is to say, our easy recourse to complexity can often be used to impede ourselves from embarking on the difficult task of abandoning disciplinary, pedagogical and (to whatever extent we can) ideological predispositions and rigorously opening a problem up to the world. By constantly assuming that the urban constitutes an overly 'complex' system, we hide from ourselves not only the basic truths about the urban but even the possibility of interrogating it as a spatial order which has a history, which has an identifiable spatial logic and which has a political disposition. For me, the most interesting question that we can ask today is not what to do about rampant, uncontrolled urbanization, but much more simply: what is urbanization?

#2 The recent flurry of panels, conferences, symposia based on 'reimagining the region' and so on promises both potentially interesting work, but also for me suggests what could be an epistemological trap. This is in part because the problems investigated in this body of research are already framed within certain predefined spatial categories which themselves remain infallible (the 'city', the 'region', the 'hinterland' and so on), meaning that we can only ever measure any one of them against itself. What's more, the array of them together suggests certain accepted relations, hierarchies, flows as well as scalar autonomy—a kind of presumed spatial whole. For me, while there is clearly important research to be done from this perspective, I'm convinced that, within such frameworks, it will always remain partial, localized and legible only in comparison with certain unquestioned standards and presumed truths. I'm more interested in the problem of these categories themselves, their histories and how they open space for certain contemporary problems to exist while precluding the possibility of others outright.

Indeed, consider the infallibility of scale itself. We assume that scale is somehow epistemologically fixed and that simply by shifting from one scale to another, we also automatically shift the frame of the problem and the objects that obtain to it entirely. Moving from the architectural scale to that of the neighborhood, from the neighborhood to the city, from the city to the region, from the region to the territory, from the territory to the planetary and so on: each supposedly frames radically different objects of inquiry and pose completely different questions. While this is not untrue to a greater extent and can be an extremely useful tool, it also implies a certain assumption that each scalar register is somehow isolatable from one another and that in the basic hierarchy of scales there is some kind of unquestionable truth. What if, however, there is a system which transcends scale altogether—which penetrates equally throughout each of our neat scalar registers? What if there is a spatiality whose logic and technologies are in fact completely unrelated to scale at all, at least in our preconceived imaginary?

This for me is one of the paradigms the urban introduces to the world. Already in 1867, the person who first coined the term 'urbanization', Ildefonso Cerdá saw, the emergence of a new spatial order which had the irresistible power to collapse all previous scalar categories, from the nation-state to the city block, into a single, seamless space which he zealously prophesied would 'fill the earth'.

It is precisely here where my research interests lie. For me, more than a question of recasting the city, the region, the hinterland and so on as epistemologically separate spatial registers, I'm interested in questioning these various ontologies themselves. More specifically, my work is an attempt to explore the urban, mov-ing beyond the various myths or truisms which currently enshroud it, depicting it as a trans historical, essentialist capacity of human nature, or simply flattening it into another term for the

space of the city. Instead, what I'm trying to do is to be-gin constructing a kind of ontology of the urban—a political history of this space—which aims to identify the urban historically as a quite recent spatial or-der, as a category radically opposed to the 'city' and, most importantly, as a polit-ical construct.

The various projects I work on look to uncover specific relations between the spatial order of the urban and the political forms which underpin it. Ultimately, I'm interested in the inherent relation between the urban as a spatio-material order and the political forms that it make possible: the urban as a historically situated space of power.

More to the point, my work aims to build a history and a theory of the urban around the notion of circulation. I'm interested in how over the course of the mid-nineteenth century, not only would circulation give the European city, as it were, its new raison d'être, but it would do so with an overtly political ambition—one that is curiously overlooked by our present histories of the city. However, rather than taking the nineteenth century's birth of modern urbanization as a historical origin, I turn the analysis, so to speak, on its head: instead of beginning with the urban in order to expose a certain politics operating at its core, I look at the urban rather as a historically specific spatial and material order that power in the west assumed as its most effective medium of control—one whose political configuration came to light in the course of the nineteenth century. That is to say, by examining genealogically the broader relation between power and circulation, I attempt to frame the urban as but one historical configuration of power whose spatial order became broadly legible and reproducible at a certain point in time. In this way, the city (and eventually the urban) is not charged with any trans historical claims or other false essentialisms. Rather, I start with the more modest question that, if a bond between modern (bio)power and circulation can be located within the urban, can such a coupling be found elsewhere in history? And if so, how and when did the bond form between circulation and political power? How is it that the city would eventually become embroiled in this complex? And how did this new formation of a city conditioned entirely by circulation paradoxically make redundant the notion of city altogether?

This for me is where the question of scale becomes important. Maybe the problem today isn't that the region, the city, the hinterland, or any other spatio-scalar register is undergoing radical and unprecedented transformations in itself, but that maybe these are no longer the most effective epistemological frames with which to grasp the full depth and nature of the spatial orders we've composed in the first place. This is not to say that we've suddenly reached a point in history whose conditions are such that we have to invent an entirely new epistemology in order to comprehend something that is happening 'out there'; rather it's to say that perhaps all along we've been constructing and inhabiting a spatial system without the corresponding theoretical tools with which to actually comprehend the extents of it.

#3 For me the crucial question as a designer is how to think about the spaces we organize outside the frame of the urban altogether. Is this even possible? What would extra-urban space look like? As inexorable as its unbeknownst pundits may profess it to be, the urban, as a limitless, expansive realm, simply cannot be our collective 'destiny'. And this is (as always) not only a question of sustainability or resources, ecological catastrophe or whatever else, though such questions certainly apply. Rather, it is a question of politics—of decisions.

This is not to espouse some kind of 'return' to a more simple, 'rural' lifestyle: In fact, the rural at this point has become a mere subcategory of the urban itself; the false distinction between the two was one which Cerdá predicted would be obliterated through the very process of urbanization when he proclaimed 'ruralize the urban, urbanize the rural'. Indeed, the urban is an exceedingly contradictory category. For every identity contained in the urban, its negation can be found coexisting within it: the urban is both the city and something absolutely opposed to it, something beyond it; it is simultaneously antithetical to the rural while also that which reproduces it within; it is at once the product of artificial processes, while also seen as the innate, natural condition of mankind. It is both the essence of modernity, while also a trans historical essentialism rooted in the heart of humanity itself. Indeed, the urban's strange ability to contain every identity and its negation is a reflection of its totalizing inclusivity: it is a material order aspiring to universality and, as such, it appears as a domain without any outside to itself—a pure interior whose endlessness corresponds to the scaleless expansion of its grid.

To confront such a problem, it becomes relevant to realize urban design—that is, the spatial transformation of the urban—as a political practice, one whose pro-posals no longer assuage the underlying conflicts and currents neutralized in the urban, but to assemble the alternative practices necessary for thinking and ordering the space of our collective lifeworld poised to both confront and undermine the nihilistic totality of urbanization.

… the twenty-first century city or a new form of twenty-first century urbanism is not to be seen as on its death bed, but rather in its infancy. Analogous to the inevitable, silly mistakes of a toddler, whose world is confined to what he or she can hold in their hand or the immediate space surrounding the body, that form of urbanism is yet to grasp the larger picture beyond …

The City of the Twenty-First Century?

RAFI SEGAL

#1#2#3 What is the city of the twenty-first century? Or where is it to be found? Is it a revised and enhanced version of an existing city (a sequel to the twentieth century city) or a totally new form of urbanity, or a combination of both? Addressing these questions can help determine if there is a real crisis at hand, a sick patient as suggested, or perhaps a period of transformation, as cities—more than any other human settlement type—are in a constant process of change. But even before attempting to answer these questions, I would like to begin by examining the premise stated in the title—a search for such a city, a 'city' as a singular form. Even if the use of the word city refers to a model, a generic type, I argue that this presumes a certain conception of an idealized form, which is based on a centuries-long established understanding of what a city is. Within and outside the architecture or urban profession, there exists a more or less agreed upon notion of what constitutes a desirable city—through the experiences of living in it, the way it functions, what it represents, the urban spaces it has created, and more. Ask most architects about their favorite city or the best one they know of and the answers received will not differ significantly, but fall within a selected few. This shared notion largely follows what we can describe as an image or conception of the compact city—dense, centralized, demarked by clear edges, built along a river, containing an identifiable historic core, and more. A city which 'lives' a successful present yet maintains layers of its past and has proven its validity in generating cultural artifacts. Our conception of the urban as a condition had been primarily associated, throughout the twentieth century and further back, with a single form, that of the compact city. I speak of form in the broadest sense as a type rather than a shape.

While the city can vary in size, location, population, geography, etc. it has mostly been treated by architects as a form: an object, or body, or machine, an agglomeration of various parts that produce a single entity, a cityscape, a skyline, an image.

Urban meant 'the city,' a notion that heavily relied on certain spatial configurations and social, economic, and political organizations, but furthermore on clearly distinguishing the city from other types of human settlement. The city has been understood to occupy the 'end point' on a linear progression of human habitat, varying degrees of human intervention in the environment: nature or wilderness on the one end, through the rural, the village, the suburb, the town, the inner ring suburbs, and eventually the city on the other. And thus the urban came into being at a certain point along that line, coinciding with the form of the compact city.

What I argue is that the significant change of our time, the crisis or period of intense transformation, lies in the separation or misalignment of the term "urban" and "city." The "urban" has expanded—a result of social, technological, and cultural changes—and more than ever has become a condition, an experience which is no longer manifested solely in the single form of the city, but suggested to exist beyond it (and some would argue independent of it). The cultural and historic divide of city versus country side, or urban versus rural has become obsolete. More than ever before, we partake in urban life without dwelling in the city, without relying on the dominance of the compact city to generate the urban experience. The question remains whether the urban condition is to produce other potential 'forms of urbanity,' of which the compact city, which we inherited from the past, is but one of many such forms.

I would argue that the more significant urban changes of the past decades have been taking place outside the compact city, or what can fall under the term "The Dispersed City": the potential next phase of transformation of North American suburbs, in particular those which are located in proximity to or within a larger metropolitan region, characterized by certain demographic, spatial and infrastructural conditions.

In the broader view these twentieth century suburbs have already begun to undergo a process of transformation, another layer of intervention, yet their potential development remains to be further explored, to be shaped, to be reimagined. These places need to 'invent' their urban expression, to establish their urban identity or sense of place—a key factor in a positive development of a new urban future. (A slightly crude analogy can be drawn from the similar process by which many historic European cities underwent the transformation from Roman colony or Roman army camp—generic grid layouts, 'suburbs' of the Roman Empire—to independent cities of a very distinct and particular character.) These potential new urban forms will alter the traditional hierarchal structure of a dense

and confined center surrounded by a gradual decrease in the built area and lead to an emergent dispersed multi-centered pattern of nodes, lines, mega-regions, gridded landscapes, overlapping networks and more.

Therefore, the twenty-first century city or a new form of twenty-first century urbanism is not to be seen as on its death bed, but rather in its infancy. Analogous to the inevitable, silly mistakes of a toddler, whose world is confined to what he or she can hold in their hand or the immediate space surrounding the body, that form of urbanism is yet to grasp the larger picture beyond—the chance to avoid the environmental, infrastructural, transportational, and social problems we are foreseeing and endlessly encountering in our traditional urban forms.

Logistics provides a conceptual framework for a more specific reading of globalization and urbanization but it is also deployed projectively to source new design methods and approaches to environments completely organized by systems of flow. In a way it's a manual for the fluid metropolis.

CLARE LYSTER

#1 Perhaps crisis is a new reality or the new norm. Although I don't find it productive to subscribe to crisis theories when it comes to a discussion of urbanism. It's such a depressing way to approach ones subject matter. I'm a little more optimistic than some, the statistics show that urbanization is increasing everywhere making all genres of the "urban project" especially relevant and that's certainly good news for architects (and scholars in other fields) who are interested in the city. The city as an idea is very much alive.

Every generation thinks his or her city is in crisis but it is just the evolution of urbanization. Although in some era's, crisis reigns more than others. Just look back to the 19th century, now it was pretty depressing to be in a major city then. Unless you were wealthy you lived in pretty a decrepit situation. I recently reread Engles' essay about Manchester (1844), and despite it being the cotton capital of the world, the living conditions were deplorable for middle to low-income laborers. In Berlin, at the turn of the century and into the teens, families shared tiny apartments at the back of larger buildings. This was the beginning of the capitalist era in these respective contexts and I believe there was much more exploitation in the workplace then. I think it must have been pretty miserable. So compared to that era, the Western city we live in now is not in crisis, or at least not in the same type of crisis. (This is not to ignore the challenges faced by urban populations in developing cities). Much later around 40 years ago, in the American City we called the demise of the industrial downtown and the flight to the suburbs as another type of urban crisis, that's when people hated cities and wanted to leave. Architects and urban scholars deemed the death of the downtown as the end of the city but it was really just a shift in where the city would develop. So the city is a resilient entity. It keeps going. So we should not conflate shifts in urbanization as the end of the city or as a crisis but rather an

an opportunity to ask: what is the city?

The shifts in urbanism today are primarily the result of transformations in global financial markets and technological innovation. These are having a big impact on all scales of space. At the geo-spatial scale, in many cases, it means decrease in power of the nation state and more importantly, a corresponding decrease in the intellectual and ethical values on which the modern nation state was premised. At the same time we witness the corresponding rise of cities and regions that have specific characteristics or specific agency in global trade (in most cases financial trade). The emergence of a whole host of economic and technological networks (largely in the financial and information sectors) since 1970 is largely responsible for this. So much so that networks are to the current urbanization what natural advantage was to historic forms. Being part of a larger network is critical to a city or a region and brings enormous economic advantage. In fact networks (I prefer to use the word systems) are becoming critical at all territorial scales and are the most dominant organizer of the city at every level- they exist at the scale of a region or at the scale of a neighborhood block. These global networks are in your house.

Yet despite their range, to a certain extent, these new phenomena are beyond the realm of architecture so I'm not sure how architectural design engages with the socio/economic consequences that have resulted from 25 years of neoliberal economic policy. So if there is a crisis, its that architecture has no power within the larger structural mechanisms that now dominate society. This was not the case in earlier times. Let me reference the industrial city again. What came out of that crisis was the city beautiful movement, an attempt by architects to make living conditions better and to make the city functional and healthy but in an artful way. I don't think architecture (design) has such a claim on the city now as it did then.

Moreover, given the ubiquity of the network, a second disciplinary crisis might be that infrastructure (networks are infrastructural space) has become more important than architectural figure in the contemporary metropolis and this is certainly a crisis for architecture because forever architects have approached the city through built form (figure) and now I think they have to shift their thinking and learn to approach the city from the perspective of its systems rather than architectural volume. So the challenge is to define an architectural position in the systems of flow that pass though and organize the city. This does not mean abandoning formal approaches but instead rethinking the agency of form vis a vis the power of systems. And this is hard, for many of these systems are virtual, just think of financial networks/e-trading, online commerce, social media that have the effect of dematerializing urban form. Many systems are corporate (global shipping, telecommunication networks, media empires) which makes them very hard to characterize and that challenge the city as a public space.

In summary, I believe that there is a big disciplinary shift and it is from form to systems—or to use Mark Wamble and Dawn Finley's term "System Form"(1). But again this is not entirely new. Architects are very good systems' thinkers. So it's perfectly within our capability to adapt to a new way of thinking.

#2 Ultimately for architects, "Design" is the framework to explore the metropolis. Architects and planners must come out from under the texts and readings on globalization and complexity theory and engage with the city by using their skills as makers and shapers rather than behaving as passive commentators regurgitating what anthropologists and sociologists think, no matter how tempting this maybe. (This is somewhat of a confession as I put myself in this category). The trick is to create an epistemic framework that takes the discussion of the global city out of global studies (Harvey, Sassen, Castells, Hanley, Brenner, Graham et al.) and into design. And this is difficult to do, because there are very few precedents in the discipline for a design framework that embraces fluidity, which is why we still continue to pull out Louis Kahn's drawing for Philadelphia from 1952. We are all in love with the traffic flow map precisely because we don't have another example of how to explore the city from the perspective of "systems of flow" rather than a traditional figure ground relationship. So before we design for the scalar frames of the new metropolis we need to define a framework for how this can happen. The question is how to leverage the scholarship from the field of global studies into a design framework or to put it another way how to deploy those readings more productively toward design. In a very modest way, that's what I'm trying to do. Recently I've been exploring logistical systems as a lens to understand the impact of global networks on the city and more importantly the implications for architecture and urbanism. This is the subject of my book (Birkhauser September 2014). Logistics provides a conceptual framework for a more specific reading of globalization and urbanization but it is also deployed projectively to source new design methods and approaches to environments completely organized by systems of flow. In a way it's a manual for the fluid metropolis.

#3 Re: advocacy: I don't subscribe to the need for architects to be advocates but I respect what you are trying to suggest. One could say that the city beautiful movement was a form of advocacy, in that it was a real attempt by architects to make the city better but there was also an intellectual and aesthetic premise for the project. For me that's more the model. I still believe in the modernist ethos of the architect's role to improve society but at the same time we have to be realistic vis a vis our scope of work and what is really

possible.

Re: agency: Regrettably architecture does not have much agency in many of the categories you list above. The city is no longer shaped by architects instead it is the purview of developers, consultants and entrepreneurs. But I do think there is a project for architecture (whether this is agency or advocacy) in the new systems and processes that define urbanization and this currently exists as "design research" in the academic realm (Chicago Expander is one example) and not driving actual projects. This type of research could have more traction and reach a wider audience with more support outside the academy but regrettably design does capture federal funding to the extent of other fields (medicine and science) and so the capability of design to confront contemporary urban challenges is under valued. There are 3 areas where agency might exist.

1_ I think infrastructure is an important venue despite shrinking funds, although the shift from public to more private forms of infrastructure (not that this is an ideal scenario) might shift investment and thus allow more opportunities for design intervention. This might involve optimizing infrastructural sites; bundling infrastructure with other program and spaces that address the extent of mobility that defines our era.

2_ For the most part, infrastructure is a ground-based space so I would argue that "ground" is emerging as a critical space in the contemporary city. Agency could be defined in the way architects embrace ground as a design project.

3_ Within the field of urban technology there is great agency. This is happening at the moment in the realm of "smart urbanism" where data is collected and interpreted by cities for the purpose of monitoring and for urban governance. However there is the potential for more than just information gathering in the form of new urban configurations that merge new technologies with planning protocols. I cite the Audi Urban Initiative as a very positive model.

I'll settle for any agency that gets "design" back in the mix given the forces that currently curate the city.

1: Dawn Finley and Mark Wamble. "Notes on System Form: The Rest of the World Exists". Perspecta 34 (2003)

A critical mistake of 20th Century urbanism was to eliminate many of the smaller and intermediate scales in the city as "unimportant". That was a mathematical mistake that has had disastrous consequences on the quality of urban life. Very simply put, a city lacking the appropriate fractal scales has absolutely no resilience: it is fragile, and it's only a matter of time before it eventually collapses.

NICOS A. SALINGAROS

#1 Yes. The way we build cities today is leading to their death. Having forgotten — and ignored for a long time — traditional urbanization geometries and principles, today's urban expansions are sick and unsustainable. At the same time, replacement of older urban fabric is implemented using the wrong typologies and a lack of complexity; or in many cases, lacking the right variety of organized and resilient complexity. Therefore, what is still more-or-less sustainable is being replaced by something that is fundamentally unsustainable. New insertions cut the urban network. The diagnosis is pretty bleak: suburbia as an overstretched network is mostly going to die at the first discontinuity of cheap fossil energy; while urbanized areas with better prospects because of their good density are unfortunately chronically ill. The exceptions are small pockets of traditional connected urbanism that have survived undamaged, and rather recent new pieces of city developed according to dense, mixed use urban fabric situated in a network.

#2 There are no new issues to bring into focus: these problems with urbanization are as old as cities themselves. The problem today is the vast power humans have to build things that are unsustainable, and to do it on a scale never before seen on the Earth. I already described the "city as network" in my book Principles of Urban Structure (2005), so the theoretical basis is there for everybody to read. But architects and planners have continued for some time to build cities as if they consist of children's play blocks, not networks. Such cities are neither sustainable nor resilient, because they are totally disconnected spatially and temporally. I mean that while we can drive them to function, we are doing so only by injecting vast amounts of energy, and sucking resources from the hinterland. This is

a fragile system that will collapse at the first major shock. Already, the fragile 20th Century city cannot stand even a minor shock such as a large storm or power blackout. It's the poorly thought-out systemic structure that's responsible for this fragility.

The solution of course is to provide both sustainability and resilience by means of creating network connectivity. A living city connects internally to all its components — not in the superficial way we think we are doing so today, but more in the organic sense of the medieval city. Then the urban region must also connect to its hinterland, again, not in today's parasitic manner, but in an elastic (i.e. sustainable and resilient) two-way relationship. The epistemic framework is clearly the model of the spatio-temporal network that others and I have developed at length. But what's holding us back is the fixation by architects on isolated buildings that they think they can just position into the existing "city". That's an absurd notion: there is no "city" per se to support insertions, only an existing network that is either weak or robust according to how it was put together and maintained. A building thus either adds to the network or destroys a portion of it. A new building can either help generate and reinforce the network, or it can damage it.

It's a pity that most architects never study Quantum Mechanics, where this notion of interference and interdependence is something every student learns. Each act of measurement or intervention disturbs the whole. It is physically impossible to locally change just a tiny bit of a quantum system. Changes affect the entire system, and any proposed intervention must compute the consequences to the whole. Everything is connected to everything else, as V. I. Lenin was fond of saying! It will help us tremendously to regard and understand the city as a quantum system that works precisely because of its mechanism of spatio-temporal coherence.

#3 These are multiple and complex questions lumped together. Separate answers to different parts of the problem will in the end have to be combined into a coordinated strategy that works on each level at the same time.

First_ global consumerism has destroyed cities by imposing a utopian notion of high-tech solutions for everything. That doesn't work in the long term, because it is a terribly fragile approach, neglecting cheap, low-tech, and passive energy solutions. But it was never really meant to work for the long term, only to make enormous profits for the companies that built unsustainable structures and whole new cities. In China, many of these new cities have already had to be abandoned! Most extensive infrastructure projects were not really motivated by the desire of helping people, only for profiting some private firm, creating work for government agencies, or trying to patch up (but not resolving) something that was close to collapse. Cities require many actors on many different scales independently.

Second_ suburbia grew hand-in-hand with a massive government scheme that underwrote the infrastructure to help out developers. The citizens (i.e. we) paid, and still pay, a fortune to extend roads, water, sewers, and electricity out to farmland or desert so that private firms could build suburban sprawl. Cities became broke as a result: not only financially, but this expansion broke the spatio-temporal urban network by stretching it out too far beyond the limits of its working capacity. Those who want to fix this mess will need to especially study the mathematical problem of stretching networks beyond their breaking point; yet practical solutions do exist, and can be found in the way the Internet is maintained.

Third_ the creation of the shopping mall is simply a consequence of sprawl. Urban public space was intentionally eliminated, then sold back at a great premium to suburbanites and city dwellers who naturally craved it because it's part of our human biological needs. The mall was created as the substitute for the missing urban public space. Except that it was now private, and entirely profit-oriented, not society-oriented. Today in much of the post-World-War II world, society has access to shopping malls but not to urban public spaces. Unnoticed with the reversal of urban morphology, the polity of society itself was reversed because its common meeting places were removed. We have been forced into an entirely different type of socialization.

Fourth_ the question of scale is crucial to re-building the city. Just as with any organism, a healthy city is a fractal system: it exists on a carefully-distributed variety of temporal and spatial scales, from the very large to the very small. And all of these scales are tightly interrelated so as to support each other. A critical mistake of 20th Century urbanism was to eliminate many of the smaller and intermediate scales in the city as "unimportant". That was a mathematical mistake that has had disastrous consequences on the quality of urban life. Very simply put, a city lacking the appropriate fractal scales has absolutely no resilience: it is fragile, and it's only a matter of time before it eventually collapses.

Fifth_ the correct spatio-temporal fractal structure of a living city makes it possible to connect both to its ecological environment, and to its hinterland. Natural structures are intrinsically fractal, and a major one is an ecosystem. This is only a pre-condition for linking: more connective steps need to be taken, to be sure. Ecosystems are therefore unable to connect to another physical system (say, a human built environment) that is itself not a fractal, regardless of the effort put into achieving such a connection! A very simple mathematical result that has profound consequences for the morphology of what we build on the surface of the Earth.

Sixth_ the quality of heterogeneity is sadly neglected in today's cities. What we see is rather an insistent homogene-

ity is sadly neglected in today's cities. What we see is rather an insistent homogeneity, in most cases camouflaged as variety; but it isn't. True heterogeneity cannot be imposed — it evolves with time and the freedom to act and intervene on a local, especially small scale. It is an emergent phenomenon arising from the confluence of many separate actions on many separate scales, with more freedom allowed as you go down in scale. Curiously, today's democracies forbid genuine urban heterogeneity from developing over time, which was the healthy process that grew our best-loved historical cities. Rigid regulations instead enforce a bland and dangerous systemic homogeneity on all new urban fabric and new interventions. Even if they look "exciting", that is only a superficial appearance. This definitely has to stop because homogenous systems are terribly fragile and prone to collapse.

Seventh_ moral, economic, and political corruption has led to a reversal of priorities, where agricultural hinterland is converted to unsustainable sprawl. The city's population thus reduces its potential source for a local food supply in exchange for shoddy housing whose distance creates an energy consumption nightmare. After a major shock to this system, the former farmland within easy reach will turn out to be far more valuable to the city's residents in its original form. We sold out our collective sustainability and resilience so that some developers and construction firms could make a quick profit. But the solution here is not easy, since it has to deal with human greed, which is itself as old as the human race.

Eighth_ the correct application of boundaries in a city is an important matter, because they are part of the toolbox of the enlightened urbanist. I describe boundaries in Principles of Urban Structure. Every city is full of boundaries, yet living cities make their boundaries coincide with mathematical discontinuities, and do not cut living urban fabric with them. That is, the boundaries exist where they help urban life, not where they hinder it. By contrast, look at our post-war cities: the boundaries are mostly in all the wrong places. Formerly healthy regions were cut into pieces; connections that fed parts of the city were severed; while boundaries needed for containing stronger forces in order to protect a delicate place are simply not there.

The solution to all these collective problems is a political one. In the formal economy, people build only what they are legally allowed to. Everything depends upon the architectural and urban codes! After World War II, ideologues with dreams of a utopia created out of skyscrapers, superblocks, and suburban sprawl re-wrote the old city codes, and that's what we have today. They were well-meaning, but that is no excuse for making a terrible mistake and leading our cities into the mess they are in today. Just change the codes, making sure the new ones encourage small-scale, mixed-use, sustainable urban fabric, and also penalize unsustainable, disconnecting structures. Then we can finally begin to move in the right direction of reconstruction. Already, in the informal economy, everybody can build whatever they want to, but are constrained by the local geometry, available materials and resources, and pressure from their immediate neighbors. The resultant urban fabric has a much better morphology as a result. I would not try to impose any top-down rules for society, because that leads us into totalitarianism, which is the hidden flaw of today's zoning and urban codes in otherwise democratic societies.

The idea of future Detroit is the idea of generating new values through the reduction of the traditional metropolitan functions, the reuse of vacant and abandoned spaces and the recycling of surviving urban materials. The traditional tools of urban development are unsuited to treating the Pompeii effect which involves the city in its most striking forms.

MOSE RICCI

#1 I agree. It is a decisive moment for modern cities. The crisis has probably been a blessing in disguise for contemporary cities, forcing them to rethink to the environmental risks and social conveniences of their development targets. Detroit could be considered the operating manifesto of this new urban condition. I will use this manifesto to answer to your three questions as a point of reference or a case study to focus on or - better - to learn from. In Detroit, at the end of the last century, something crucial happened to the western metropolis future. More than 320,000 jobs were lost between 2001 and 2008, and about 57% of the population having left the city from 1970, and 25% in the past decade. Detroit no longer expresses a traditional urban figure. In Detroit the "Modern City" is dead, with the economy that molded its spaces.
Detroit is the American Pompeii.

In the space of just a few years its population fell from 1,850,000 to 740,000, more than 2,000 buildings were knocked down, resulting in the abandonment of the center for an area with an approximately eight-mile radius that is glaringly evident. Nevertheless, more than ten years later, something is happening. As a result of the crisis of the economy that had generated it, the Fordist metropolis of Detroit has been forced to think about the problem of its survival and its fate. And Detroit is slowly finding another dimension. Demolished areas, potential parks, manholes emitting smoke produced by the underground heat, huge abandoned public buildings, markets selling second-hand objects or where you can just trade things, Victorian houses taken over by nature, houses occupied by squatters, re-naturalized infrastructures, abandoned areas that become sites for artistic installations ... took the place of traditional urban figures and they give the ruins of this Fordist city back to narrative and nature by transforming Detroit into the first post-metropolis.

They are like new urban devices, either material or impalpable, which, in other terms, reduce reuse and recycle the little that remains of the city into a landscape. And nowadays living in the center of Detroit is not that bad. In the moment in which the city fails, landscape emerges as its infrastructure. Forests, urban farming, superficial lakes and water purification plants are replacing the obsolete activities.

From one side it is a sort of funeral of modernity that they are celebrating in Detroit and the Ruskin-like images of the "Stones of Detroit" are describing a kind of American archeology able to seduce, to identify a community and to attract scientific and popular interest. Everyone feels the horror and the charm of the dead body. As for any other archeological site. The strength of this, in a way, "romantic" figure of Detroit stands on the idea of having an history to tell, and on the concept of uniqueness. Nowadays there is just one place in the world where it is possible to be present, live, at the death of the modern American city. This place is Detroit. It is able to catch the fantasy of the people and to move tourism. Its new urban figure gives to the existing ruins a new value that does not consist in the industrial production of materials but in the production of sense. But from the other side the most important thing that is happening in Detroit is another one. Something that has to do with life more than with death. Neither with nostalgia.

The process of changing that the citizens of Detroit are carrying on does not look like they are aiming to replace what was there before. It does not look like a process of urban replacement or re-qualification. The idea of future Detroit is the idea of generating new values through the reduction of the traditional metropolitan functions., the reuse of vacant and abandoned spaces and the recycling of surviving urban materials. The traditional tools of urban development are unsuited to treating the Pompeii effect which involves the city in its most striking forms. In fact the new masterplan by Stoss Landscape Urbanism is working on systematizing spontaneous processes, on food production, on energy saving and production from renewable sources, on ecological performances of the city, on the open air spaces. With conceptual schemes and tactics for productive landscapes that can address spontaneous behaviors. Again giving new sense to the existing is the key. Detroit is slowly experiencing the post-metropolitan age. In 2012 Detroit was, in percentage, one of the best performing cities in USA for the rise of the housing market and for families that return to live inside the 8 mile divide. There are active social communities for the urban agriculture, for production of food and energy. A relevant number of young families go there to buy houses and live inside the eight mile divide. Detroit is becoming more and more important for artistic, and other cultural, events. The real estate market is growing again.

It is a new urban condition, one that

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traditional urban discipline is unable to deal with even if it was partially anticipated from diverse perspectives by the writings by Jane Jacobs ("the death and the life" she wrote...), David Harvey, Sanford Kwinter, Edward Soja. It depends obviously on the disaster of the economy and on the effects of the image of the nature regaining the city. But it is not only this. In the history of the city every new cycle of life keeps in itself the signs and the stones of the previous one. The interest of the post metropolitan condition of Detroit does not have to do that much with the charm of the ruins but with the substitution, of certain traditional metropolitan materials with regained quality open spaces for "slow", safe and intense social life and with social artificial vicinity means and abstract networks for instant communication. The Post Metropolis is an urban figure that works on the spatial effects of a social and economic organization based on ecological targets and artificial communication means. If it is possible to think of the city as a "field of relationships" - as Zygmunt Bauman wrote - the social relationships and the virtual worlds influence our ways of living, working, conducting business and even building the inhabiting space.

In this sense the Post Metropolis is detached from the modernity. And this is because it does not need the same kind (or the same intensity) of physical facts (mobility infrastructures, specialized inhabiting spaces, traditional industries) that represented the city of the modern age. If we can work, relate to other people and make things through non-material connections with computers, smart phones, interactive tv and other more sophisticated devices, why should we build our living spaces as we did until now? Why should we live in a polluted environment? Why shouldn't we adapt more spaces for the quality of our lives, for cultivating and eating food zero mile and so on?

This post metropolitan condition is particularly extreme in Detroit but it is not unique.

I think that we can learn a lot from this operating manifesto for the future city.

#2 A new geography of desire is modifying the development processes so quickly that it produces crises in the economic and cultural centers that are more inert or more resistant to the change dynamics, making them suddenly seem old and outmoded.

The conceptual theatre of this change is the shift in our idea of landscape.

As the geographer Franco Farinelli wrote in one of his latest books ("La Fine della Ragione Cartografica") the territory is over. There is no longer a need to measure the space that we inhabit to understand what it's like. In July 1969, the day mankind first set foot on the moon, while everyone was watching the sky, are more important thing happened on Earth, where two computers – one at Cape Canaveral and one in San Francisco – started to talk with each other and to share information in real time. With the advent of instant, artificial nearness and non-material networks that place different realities in instant communication or that create a new kind of reality, virtual worlds began to condition our way of living, working and spending. Cities started to lose their definition as a physical place and more and more become fields of relationships. Perhaps we no longer need territories to move around in and communicate, like Franco Farinelli says, but we still need the landscape as a foundation for identify and for quality of life. Our way of thinking about the future and its forms changed in a decisive way. And I think this has to have an impact on how we do projects.

The movement from landscape, as a way of measuring (a territory), to a system of values (a landscape) is the conceptual basis and the general goal of the most interesting studies and projects of the last years. We see ourselves in the landscape; and when we talk about it, we tell a story about ourselves, about who we are. We give value and sense to things that we do. In this way, in architectural projects and city planning, we continue to interpret the landscape. Landscape is, in some way, the only descriptive category within which the shapes of contemporary living become spaces and find sense.

The idea of territory that was developed in the past century wanted architecture to deliver stability and persistence in time. Architecture, in the end, fights against time. It wanted authorial projects that could measure the competition between places using the designer's signature. The idea of landscape, on the other hand, asks architecture for an undefined time. It asks for a chance to grow old together, to change continually like the landscape that changes continuously. And it asks a project to be polyarchic (decided by many, shared by many), and to contribute to the construction of the portrait-landscape of the beautiful picture of João Nunes, which is the portrait of a society and not of an author.

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That's it. Landscape puts these two categories together, and through projects of its continual change, tells a story about our society and our time. And it is able to produce in our city's beauty and new economies of culture, energy and food. That's all we need to better live.

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#3 Let's go back to Detroit as an operating manifesto. Even in Europe, cities are not so far from Detroit. The demise of the economy and the abandonment of built space involves existing and new constructions. In Italy, as elsewhere, this is the inevitable, yet unexpected, consequence of the most extraordinary boom in the history of the building sector. Cities have grown enormously in recent years. In Italy between 1999 and 2009 approximately 300 million cubic meters per year were built.

In Sesena, Spain, 45 minutes from Madrid in the province of Toledo, there is a sort of new little town for 30.000 inhabitants entirely empty. Sesena that should have been a residential suburb of Madrid for young families and elderly people is today a ghost city, a monument to the Spanish crisis.

In Rome, despite there is no public project for urban vegetable gardens in the recent years many spontaneous community gardens maintained by groups of citizens that share a common goal: to improve and beautify their neighborhood. Zappata Romana Map [1] shows about 153 community-run green areas: 66 small urban gardens and play yards, 57 edible gardens and 30 guerrilla gardening actions.

The Munich City Administration, in 2009 at the same time as the presentation of the variation to the overall urban plan, decided to hold a competition for young architects aged under 40. By means of Open Scale, as the project was named, Munich asked its young architects to imagine Munich in 2020-2030, the city that they would have to design and also live in. The winning project called "Agropolis", was created by a group of architects coordinated by Jörg Schröder [2] , which sets the rationale of metropolitan development beside the temporary occupation of spaces while awaiting new buildings, with agricultural areas for the production of food situated right in the city.

And Barcelona recycles through gardens as well. In a city bustling with synergic, contemporary and not completely integrated action. The Gausa-Raveau architectural firm with its Multiramblas project, the Urban Ecology Department directed by Salvador Rueda with its plan to wipe out the urban impact, and the geographer Francesc Muñoz, by means of a seminar called Recycling Barcelona elaborate a many-handed strategy for recycling Plan Cerdà. The concept behind the intervention is linked to the use of a pattern that is analogous to the one for the GATPAC-Le Corbusier plan that organizes urban traffic on a grid made up of three blocks by three blocks, instead of 1x1. This superteam is responsible for recycling thoroughfares and turning them into public spaces, green areas, urban vegetable gardens. The Municipal Council for Urban Ecology started up the first interventions to re-naturalize the streets in 2010. On the opposite side of the city, on the hills towards the airport, another exemplary project is being completed.

In Paris it was possible to visit until 2013 November first the Tour Paris 13a building that has to be demolished by January 2014 where inhabitants and other art operators invited 100 street artists from all over the word to make installations for free inside the building in order to avoid or to make much more difficult its demolition. There has been an incredible success with cues up to 12 hours to vistit the building made mostly of young students. All of this was possible till the end of October 2013 and then after one week the building has been closed and its traces in internet canceled unless somebody has saved the image of his favorite installation by connecting himself to the site and clicking pixel by pixel its virtual recovering.

As we can see the Detroit effect is already operating all around the western world. And finally What can we learn from Detroit in addition to "the science of muddling through"[3] that it's quite strategic too? I would say at least 5 things:

1_ The first is that Detroit demonstrates that the "Modern City" is death with the economy that generated its spaces. That the end of the modern city is decidedly changing the way we think about the future and the forms it is taking. That it is an issue that directly affects the lives of the citizens and sets different kind of qualitative targets for their future.

2_ The second thing that we can learn from Detroit is that one post metropolitan phase for our cities it is possible and it's not bad. It is something in the middle between the images that Jane Jacobs and Edward Soja provided to as. It consist in the attribution of a new sense to the existing more than in pursuing new development models. And this is strictly related to the relative harmony that the urban life has regained in Detroit inhabiting spaces unusual and not necessarily fast.

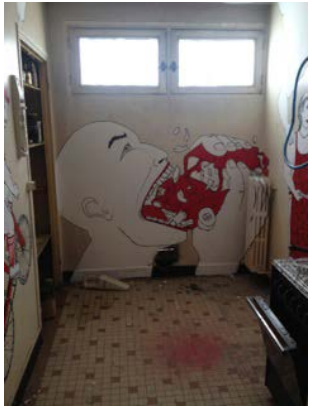
3_ The third learning is that this phase of demising modernity requires new paradigms (as Thomas Kuhn said new point of views on the future) for architecture urbanism and landscape projects e new design devices. Ecology, sustainability and landscape seems to be the most interesting point of views to drive the cities into the future.

4_ The fourth is that the most significant projects for the future of the post-metropolitan city are projects with shared authorship. That put together the initiatives of planners and designers and the spontaneous urban actions of the city makers in one collective idea of changing that builds a clear new urban figure. This is the real challenge that Detroit is launching to the design world.

5_ The fifth thing that we learn from Detroit is he shift in conceiving urban development from a system of measurements (the territory) to a system of values (the landscape). This seems to me the most radical change in respect to traditional urban culture. "Cultivating city" could be considered the key action of this process in the double sense of providing productive landscapes and producing culture as devices for new economies and

better quality of life in the city after the metropolitan age.

"If you want to be happy all life long, just provide yourself with a garden" it was a famous sentence by Carlo Scarpa and probably Detroit is showing us a possible direction for our future cities.



1: "ZAPPATA ROMANA": community-run green areas _by studioUAP http://zappata.botiq.org.
2: J. Schröder, K. Weigert + bauchplan, Agropolis München, Munich, 2009.
3: See The Science of "Muddling Through". Charles E. Lindblom. Public Administration Review, Vol. 19, No. 2 (Spring, 1959), pp. 79-88.
Blackwell Publishing

Developmentality provides a logic for planning that is ontologically natural, evolutionary, and vital. Today, this is not only the implicit basis of government planning policy, it is also the benign pretense by which financial capital reinvests its surplus into speculative land ventures. If there is an unforeseen proximity that is made visible by thinking of planning in terms of developmentality, it is this conceptual link between the banality of administration and the vitalism of the life sciences that is historically encoded in its discourse.

TIM IVISION

#1 The growth of cities, however you chose to measure their territory or population, have become a key indicator of the health and progress of modern society. The concept of 'development' is deeply ideologically linked to the material elaboration of the built environment as an expression of wealth, technical achievement, and cultural ascension. In the developing world, 'growth is good'. In the developed world 'regeneration' promises eternal life. The fact of growth and development is often given precedence over the origin, kind, or quality. These latter categories are, of course, the substantive political questions of urbanism. The gross abstractions of 'the endless city' tell us little about the distribution of these alleged assets or the means of their achievement. In assessing whether urbanism will survive or die (or continue in its zombie form) we must also ask whose urbanism is at stake.

The crisis then, is one of identity. The city grows, regenerates, develops, and yet fewer and fewer people see themselves or their interests reflected in these processes. The crisis continues, and widens, because the forces that brought it into being are still prevailing. The same political system is in place, the same forms of policing ensure its security and integrity. Furthermore, a strictly architectural approach to the problem will not work, in so far as the problem is not just the architecture of the city. It is the full technical and economic system that finances the endless infrastructural elaboration of urban systems as a method of its own propagation and colo-

nization of space. Even if we declare this model of urbanism as broken, or dead, it will continue to propagate as long as it is sustained by capital investment and sanctioned by the political ideology of the few individuals who see their interests secured and developed by these means.

#2 The critical epistemic framework that I have been working with is 'developmentality'. Drawing on biopolitical theory, developmentality tries to articulate the particular confluence of positivist discourses around health, the environment, and social and moral development that has characterized planning discourse in the UK. Although my research has been mainly concerned with British town planning at the end of the 19th century, it is a concept with fairly wide applicability. More so than the disciplinary character of most biopolitical analysis, developmentality is a formulation that emphasizes the role of the positivist spatial interventions such as sanitary reform and garden city and regional planning advocacy. The key shift that I am interested in – and it is a dialectic that still pre-occupies development discourse today – is the transformation in governmental thinking from the idea of the city itself as a vector of disease and degeneration, to the idea of an architectural technology of health through the science of planning. Developmentality provides a logic for planning that is ontologically natural, evolutionary, and vital. Today, this is not only the implicit basis of government planning policy, it is also the benign pretense by which financial capital reinvests its surplus into speculative land ventures. If there is an unforeseen proximity that is made visible by thinking of planning in terms of developmentality, it is this conceptual link between the banality of administration and the vitalism of the life sciences that is historically encoded in its discourse.

#3 The 'extensive infrastructural projects' mentioned above, as well as computational forms of demography and economy are extremely powerful forms of knowledge in the disciplines of the built environment. In order to get a handle on these forms of power, some architectural historians have turned to the history of science for their epistemological analyses; architects have turned to geography and military strategy for their readings of site, survey, and typology; urbanists have turned to cybernetics and statistical mapping for their account of the city. The turn by these disciplines towards the systemic, topological and technical systems of urbanization have the potential to help us understand the process of urbanization as an infrastructural and political phenomenon. Unfortunately, the complexity of these analyses also have the potential to obfuscate or overwhelm the possibilities of agency. Even less impressive is the fact that this increasing fluency in complex systems may actually have the motivation of merely improving the technocratic control of the systems in question.

People must decide for themselves the kind of city they want to live in. If a sense of scale and limits are to be recovered and the jurisdiction of the city redefined around regional and ecological systems of sustainability, then the technocratic forms of control that perpetuate unsustainable albeit immensely profitable forms of global trade and infrastructure must be addressed politically. For designers, theorists, and policy makers, this means rethinking both the spatial and temporal scales of their work.

But Instead of merely discarding the technologies, frameworks, and geographies that we have inherited, we should first look for ways to renovate, repurpose, and haunt their ruins. By ruins I don't mean the abandoned buildings and remains of industrial revolution. I mean the corporate offices, gated communities, the military outposts and the urban mega-developments of today. The ruins of tomorrow should be rethought today. This is the proximity we have with the rest of the world - living amongst our ruins and repurposing them towards new ends.

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… WATERSHED ARCHITECTURE is much more all-encompassing. It accepts all scales and all disciplines and most importantly all built occupations of the land.

DEREK HOEFERLIN, RA

#1 Honestly, I've never heard Part 1 of this question about cities posed this way. I like it because it's an optimistic question.

But I've heard Part 2 posed in similar ways over and over again the last decade. I don't like it because it's a pessimistic question.

To Part 1 of the question. It's quite an interesting prompt, for instance, when we pose the question place specifically. Take the delta city New Orleans as an example. I lived, studied and worked there from the early '90's (the Clinton years) until 2003 (the Bush years), and continue to work on various projects and teach public-engaged architecture, landscape architecture and urban design studios. In other words, I feel comfortable speaking about the complexity of such a place, based on my sustained and collaborative efforts. I haven't quite left, even though I no longer live in the "city that care forgot."

It's definitely true that New Orleans exhibits pre- and post-Katrina faces, but oftentimes they're indistinguishable. New Orleans is an old city by American standards. But it was strategically founded—and continues to precariously exist—in what are almost an impossible site and an impossible problem. Once a dynamic delta, in geological terms the landscape is insanely young—only a few thousand years old. Once a river dominated delta, the Mississippi is not unique. We know deltas are the economic ports and lifebloods of ingress and egress for most nations' economies. As a result, amazing urbanized and cultural regions occupy these significant gates. Since deltas are so young, they're anxious and always wanting to grow and change. Maybe like teenagers?

But adults have cut off the rebellious growth. In the face of climate change and extreme weather events, the threats are clear and present: sea level rises, sinking lands, saltwater intrusions, resource uncertainties, "at-risk" assets, ecologies and communities. Again, this is not just specific to New Orleans (think post-Sandy New York region, London, The Netherlands, Shanghai, only to name a few). But NOLA indeed is an explicit case of such threats. And what's interesting—and potentially an asset over other places like New York City—is that New Orleans is not right on the coast. But (once was) over a hundred miles away, protected by wetlands.

However, four 20th century human-induced alterations to the Mississippi watershed have caused the deltaic landscape to radically deteriorate and ultimately threaten New Orleans. 1) The leveeing of the entirety of the Mississippi River—first and foremost for navigation purposes—expedites and elevates the flow of the fresh water directly to the Gulf of Mexico. Rather than seasonally flooding and depositing the 2) precious sediment to grow the land—or what's left of the sediment due to the entrapment of such sediment by the far up-watershed Missouri river dams—the fresh water, sediment and 3) excess nutrients from agricultural run-off (again, far up-watershed) are forced to the Gulf of Mexico and off the continental shelf. This creates what is known as the hypoxic "dead zone." 4) The systematic construction of navigation and oil and gas pipeline canals throughout the wetlands have allowed for the direct conduit of saltwater that both ultimately kills the wetlands and provides direct path for storm surge (think the Mississippi River Gulf Outlet [MRGO]—the main conduit for storm surge during Hurricane Katrina that directly led to levee failures and lost lives).

Just as explicit are the methods by which the New Orleans landscape was completely altered by humans—mostly during the 20th century for urbanization purposes. It boils down to one critical statement. "New Orleans—when founded—was all at or above sea level." I'll say that again: ALL at or above sea level. That's the definition of a deltaic landscape. It's simple gravity. Land can't be below sea level or else water and rivers have no reason to build it or ultimately make their way to the sea (level). However, the local invention of the A. Baldwin Wood Screw Pump in 1913 changed all of this, and some would argue many parts of the rest of the world, since the pump technology was exported to places like The Netherlands. You could say the ubiquitous Wood Screw Pump is to 20th century delta urbanization that the AK-47 is to 20th century warfare. The pumps allowed for the systematic drainage of the city, especially the "back-swamps" for post-WWII suburbanized (slab on grade ranch-burgers) urban development. However, like the levees and canals in the delta, this urbanized pumping had unintended consequences. By draining the ground, the pumps removed the critical component of the delicate landscape—WATER. Thus, cavities in the unstable organic soils were opened, in turn causing the heavier sands, silts and clays to crush these soils, thus causing subsidence. Simple as that. This is why half of New Orleans is below sea level—and still sinking. Pumps and levees did this, not nature. If nature had its way, the mighty Mississippi would continue to seasonally flood and grow the land. But how to occupy such a dynamic landscape? And how to adapt to the very means that created it?

Which brings us to Part 2 of the question. We must get pro-active, not re-active, always in stunned crisis mode (I write this as the aftermath of the Philippines ty-

phoon unfolds, one week later, and supplies still haven't arrived). To treat the patient (the delta and its city), put the region on a prescription of full-dosage integrated water management. That sounds strange because the region is already fundamentally surrounded by water, but the 20th century arguably completely mismanaged this precious resource. In other words, let the freshwater in. Live with the water. Don't hide from the water. Replenish the soils. Don't force the water out (of the delta and out of the city). Hold the water in. Re-grow the delta. Re-grow the city. Rather than living with water "on crack," it should be more like living with water "on pot." To accomplish these two scales of operating with water—the region and the city—multiple scales of intervention are required within each.

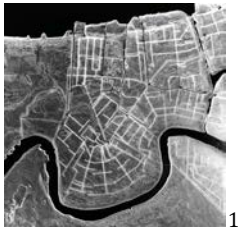
For the delta/coastal scale, the all important and adopted Louisiana 2012 Coastal Master Plan, led by the Coastal Protection and Restoration Authority of Louisiana (CPRA), calls for multiple projects, set under the main recommendation of large-scale Mississippi River diversion projects to replenish the wetlands with fresh water and (theoretically) sediment. A project I have not directly participated in, but am acutely aware of its importance. In other words, this is real, and billions of dollars are Congressionally and urgently at stake (some of which ironically from the BP oil spill settlement). In turn, the Coastal Master Plan has led to the current solicitation for interdisciplinary teams to compete on the "Changing Course" competition to chart future spatial visions for such diversion projects.

For the New Orleans/city scale, I've been part of multiple interrelated initiatives advocating for living with water in New Orleans: Gutter to Gulf, Dutch Dialogues and the Greater New Orleans Urban Water Plan. Begun in 2009, Gutter to Gulf advocates for multi-scaled water management strategies for the New Orleans region, from the scale of the gutter of a building to the Gulf of Mexico. Gutter to Gulf is a multi-disciplinary effort between architecture, landscape architecture and urban design faculty and students at the John H. Daniels Faculty of Architecture, Landscape and Design at the University of Toronto, led by Jane Wolff and Elise Shelley; and, the Sam Fox School of Design & Visual Arts at Washington University in St. Louis, led by myself. The documentary research and multi-scaled mission for the Greater New Orleans Urban Water Plan. Completed in September 2013 and the first of its kind of plan in the United States, the Waggonner & Ball led team of American and Dutch experts charts the future course for living sustainably with water for the long-term resiliency of the city. Since the project is incredibly complex in scope, its message is simple. According to the Living with Water website (www.livingwithwater.com), there are three problems to address: 1) urban flooding, 2) subsidence; and, 3) water assets wasted. There are three principles for adapting the flow: 1) water (when it rains, slow and store; when it's dry, 2) ecology (live with water, work with nature); and, 3) people (work together, design for adaptation). Achieving this requires prioritizing design, and as stated again on the Living with Water website:

"Addressing today's water and soil management challenges requires a new paradigm in which stormwater and groundwater are managed as valuable resources rather than as nuisances. The Urban Water Plan outlines a 50-year program of systems retrofits and urban design opportunities for achieving a safer and more sustainable balance between ground and water. The retrofits emphasize slowing and storing stormwater rather than pumping, circulating surface water and recharging groundwater, creating vital public spaces around water, and incorporating natural elements and processes into the operation of an integrated living water system."

So back to the first question. I truly believe Gutter to Gulf, Dutch Dialogues and the Greater New Orleans Urban Water Plan are proposing the radical transformation of New Orleans by the very means that have made it (canals, levees and pumps). Rather than starting clean slate, these three initiatives advocate for the re-working of the tools and infrastructures of the 20th century in a completely new 21st century mindset that primacies adaptation over control.

But…as I alluded to above, in terms of issues impacting the delta and New Orleans from "far up-watershed" (i.e., sediment starvation and nutrients excess), there is a much larger scale looming…that hopefully I can address in question 2.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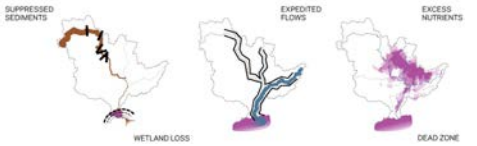

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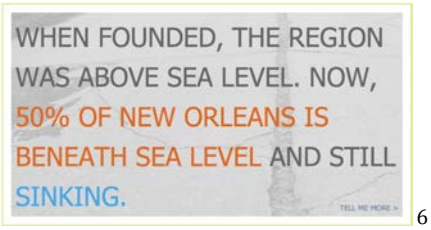

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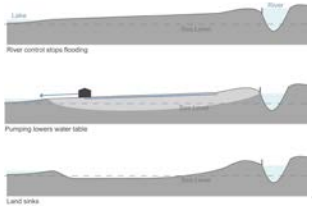

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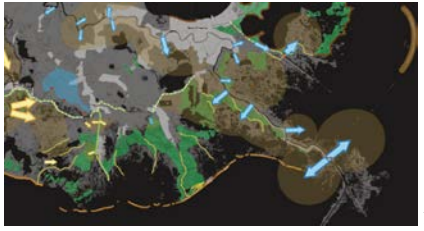
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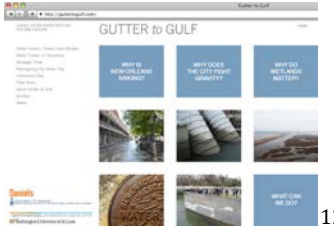

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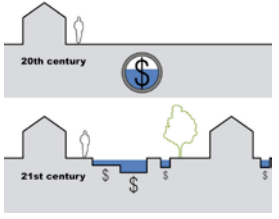

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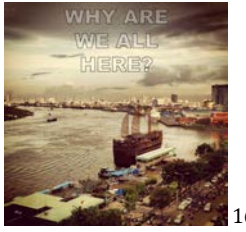

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#2 I think one potential and radical framework option is a NEW DISCIPLINE.

As designers, we're all skirting around the issue of multi-trans-inter-disciplinary…always struggling to assert one's disciplinary strength, and all the while flirting and engaging other disciplines that ultimately may be one, two, three in the same.; i.e., architecture/landscape architecture/urban design? I guess this blurring of boundaries has been especially necessary post-9/11-HurricaneKatrina-SuperstormSandy-TyphoonHaiyan-#whateversthenextdisaster?

But then the more important challenge is how these mutually informative design disciplines actually engage other disciplines, agencies and most importantly the decision makers that ultimately rule on the policy changes. Let's face it…most of the multi-scalar design proposals we've promulgated over the past decade ultimately resolve themselves in significant land-use/infrastructural/policy shifts. And this isn't just pertinent to the mega-scale, but the micro-scale too (rain barrels are still illegal some places!). Conversely, many of the proposals that have any hope of being accomplished aren't just municipal in scope, but may land in the laps of Congress having to reform the charge of the US Army Corps of Engineers. No small feat, but completely attainable (again I'm an optimist architect).

I've found this multi-trans-inter-disciplinarity incredibly challenging…and maybe even ultimately naïve. Not from the myopic standpoint of defining whether the work is academic, research or professional; or who has authorship or whatever. I could give a crap about that. That's just the snake eating its tail. What I do give a crap about—first and foremost—is getting work done (especially when situated in post-disaster contexts). An only then, whether the work is set within the question posed of the issue of recasting cities within a much broader, spatial, temporal and political (or possibly apolitical) context.

So, I argue this complex context must specifically be the large-scale influences of the WATERSHED and its fundamental and primary molecule—WATER (learning from New Orleans). Water may be the most politicized thing on earth, but ironically water is apolitical—water flows where water wants to flow!

So let's call this new discipline WATERSHED ARCHITECTURE. As far as I may not know, maybe something like this has already been proposed (or maybe "landscape urbanism" alludes to it?) WATERSHED ARCHITECTURE just seems common sense to me. It would be a discipline that always begins with the source, and ends with the mouth, then fundamentally and poetically reconstitutes itself over and over and over again. Landscape urbanism doesn't do this. Taking the name literally, it prioritizes landscape and urbanism, and therefore is exclusionary to others. But WATERSHED ARCHITECTURE is (dangerously) much more all encompassing. It accepts all scales and all disciplines and most importantly all built occupations of the land.

WATERSHED, defined by scientist geographer Wesley Powell: "that area of land, a bounded hydrological system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they became part of a community."

ARCHITECTURE, according to trusty source Wikipedia, classically defined as "both the process and product of planning, designing, and construction, usually of buildings and other physical structures." But more contemporarily, both micro and macro in scale and now "adopted to describe the activity of designing any kind of system, [such as] information technology."

WATERSHED ARCHITECTURE at first may seem like a horrible idea with unforeseen and unintended consequences…like the formation of the Department of Homeland Security that bureaucratically gobbled up FEMA…and we all know the disastrous effects this had with FEMA's response to the Gulf Coast after Hurricane Katrina.

But I think this discipline is already implicitly happening and it's really not that bureaucratically "big." It already exists in the form of design-based interdisciplinary and community/stakeholder engaged workshops, such as the abovementioned Dutch Dialogues in New Orleans. But while Dutch Dialogues importantly addressed the city of New Orleans scale, and referenced the delta and coastal scale, it did not relate explicitly to the Mississippi watershed scale.

Along with John Hoal at Washington University in St. Louis and Dale Morris of the Royal Netherlands Embassy, Washington D.C., I organized a workshop in spring 2013 that began to take on larger watershed-scale issues in the Midwest region. MISI-ZIIBI: Living with the Great Rivers, Climate Adaptation Strategies in the Midwest River Basins was the first in a series of multi-disciplinary workshops that investigated spatial design strategies through the studying of innovative, integrated approaches for climate adaptation along the Mississippi, Missouri and Illinois rivers in the Midwest. Initially focusing on the St. Louis Bi-state region, the first workshop outcomes were a broad-based set of proto-typological, multi-scaled planning scenarios worthy of more detailed study and intended to be transferable to other Midwest city regions. In the United States Midwest, the 2011 floods and tornados, followed by the 2012 drought, and once again followed by the 2013 floods and tornados, demonstrate that increased climate variability and weather extremes across the Mississippi/Missouri river basins are a fact for which we need to plan. Such diverse weather events have direct impact on natural resources, economies and communities. MISI-ZIIBI brought to the Midwest experts from The Netherlands' current Room for the River program – a government design plan intended to address climate change, flood protection, drought tolerance,

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integrated land use and the improvement of environmental conditions of areas along rivers to ensure the continued sustainable development of The Netherlands' river region. The workshop partnered with local and regional experts to build upon the wealth of existing efforts underway.

Current additional efforts are taking on the watershed scale, such as America's Watershed Initiative and America's Wetland Foundation, both of which bring together multiple interests together from across the entire Mississippi watershed. Both are wrestling with mingling top-down and bottom-up approaches. I've been fortunate to participate in these initiatives, but unfortunately the design disciplines are mostly absent from such important discussions. However, this past May 2013 America's Wetland Foundation hosted the DELTAS2013: World Delta Dialogues conference in Ho Chi Minh City, Vietnam. It included design workshops and I co-organized one with the Dutch landscape architect Stijn Koole, partner in Bosch-Slabbers Landscape Architects. Originally delta scale in scope, Koole and I re-cast the net of the workshop to understand the much larger cause and effect implications of the entire Mekong watershed on the future development of the Mekong delta. Obviously, there are many issues at stake and the Mekong is fascinating to study because the river system is still mostly wild and "natural" in its current form. But this is starting to rapidly change with the proposals of major dam projects up and down the river system. Our multi-disciplinary group proposed the need for an integrative approach that directly takes on how the dams can be designed more dynamically in the future to better accommodate fresh water and sediment supply to the downstream delta.

And finally, directed by myself and set within an international multi-disciplinary network, Deltas + Watersheds (D+W) is a multi-year research effort that investigates complex issues of water management in relation to design (www.deltasandwatersheds.com). The ambition of (D+W) is to network comparative deltas and watersheds around the world in an effort to transfer knowledge among them—legibly in a visually graphic manner, to be utilized by multiple disciplines. The initial deltas and watersheds researched are the Mekong, Mississippi and Rhine/Meuse. (D+W)'s three inter-related foci are:

1_ Geo-spatial field documentation: in Internet format, legibly foreground geo-referenced field documentation of aspects of living with water in multiple deltas and watersheds.

2_ Generate watershed-based taxonomies of living with water for comparative purposes.

3_ Speculatively propose future adaptive design strategies and/or toolkits.

#3 What are the strategic issues we should target for the future?

Water Management, plain and simple (supply/scarcity/trans-boundary/coastal communities/deltas and their cause-and-effect relationships to larger scale watersheds)

What is the agency for these outcomes to be 'positive?'

Design Workshops (engaging all disciplines/interests/stakeholders set within a non-jurisdictional hierarchical setting) Gutter to Gulf/Dutch Dialogues/NOLA Urban Water Plan and MISI-ZIIBI

Has there been agency in consumerism, commercialism, capitalism, and subsequently in sprawl, suburban developments, malling, infrastructure, and as a result in extensive infrastructural projects?

I differ to others' expertise and responses on this…i.e. my colleague Ian Caine.

Is there an agency in how we strategize growth, land-use, density, transportation, and technology?

Again, I differ to others…

…or MISI-ZIIBI pushing for more intelligent floodplain developments, aware that such floodplain developments are inevitable and unavoidable…

Or how we make and shape social, cultural, political and ecological systems?

My multi-scale/program/venue approach to NOLA post-Katrina…

Can we recover scale and its limits in order to understand boundaries and jurisdictions that depend on how to hold a heterogeneous contemporary city together?

I think WATERSHED ARCHITECTURE can take this on and potentially synthesize…

Is there agency in securing our resources for the future?

Yes, but what/how do we define resources? I would not cast it in the net of Sustainability, but rather, again I'd prioritize WATER as fundamental molecule to creation of all other resources...

And how does this relate to city design and setting structures for growth that will guide investments, both for the public and private sectors organizing sustainable developments for future cities?

It's potentially place specific set within the larger scale watershed? But tied to much larger shared frameworks/infrastructures…

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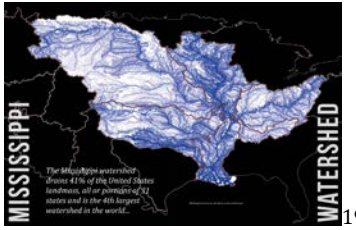

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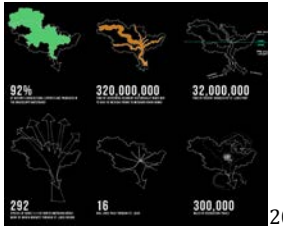

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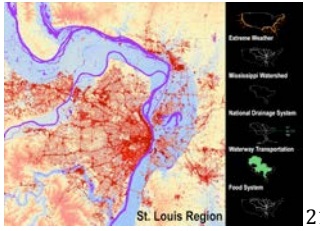

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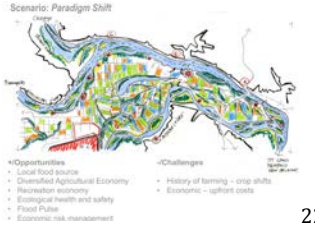

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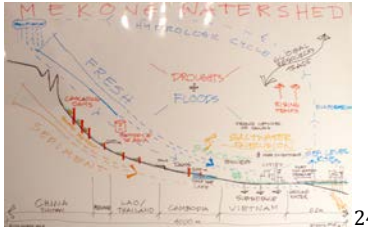

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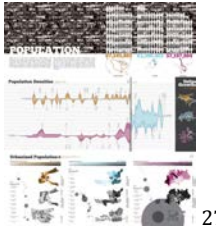

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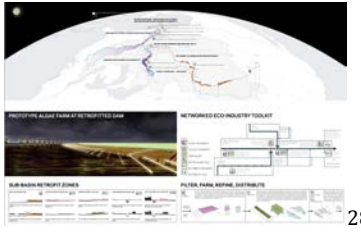
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Within the contemporary context however, the territorial power of states is being restructured and interwoven with multinational corporations that tend to monopolise the production and distribution of food, energy, and raw materials. The global hinterland can thus be conceived as a hybrid socio-techno-geographical construct: on the one hand flexibly articulated by a set of multiscalar actors and on the other hand still grounded in the specificities of natural geographies and the development of massive infrastructures that mutate them.

What Ever Happened to Hinterland?

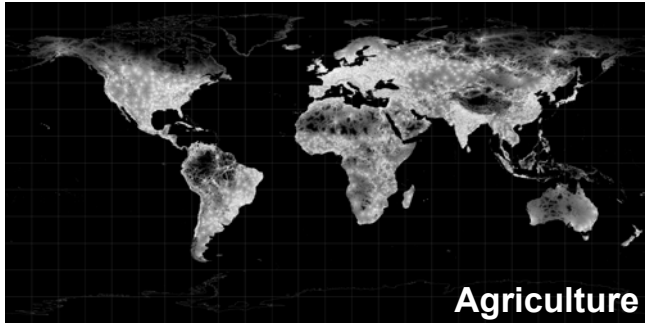
NIKOS KATSIKIS

#1#2#3 In the past two decades there has been a growing fascination with understanding the structure and spatiality of emergent urban formations. Within this context, a lot of effort has been invested in decoding and mapping the form, structure and evolution of the extended, 'post-metropolitan', 'polycentric', 'diffuse', 'regional' forms of agglomeration. However, agglomerations constitute only one side of the urbanization process: Urbanization has always been characterized by a complex process of socio-material exchange between agglomerations and a complex web of surrounding or more distant territories. This relationship of service and supply has been the basis of shifting and interdependent patterns of influence between cities and what could be conceptualized as their broader hinterlands. And while the expansion and reconfiguration of complex agglomerations has coevolved with an equally unprecedented reorganization of their hinterlands, little analytical and systematic investigation has been put in the understanding of this changing interrelationship.

Indeed, the city - hinterland relationship that has been central in explaining patterns of interdependency and occupation of the earth's surface, has become extremely hard to define in territorial terms under contemporary conditions of generalized urbanization: The construction of contemporary hinterlands appears to be dissolved in the operations of logistical networks and detached from any geographic association. At the same time however, social and environmental concerns regarding the geopolitical and ecological implications of urbanization are urging a territorial reinvestigation of the extended geographical 'imprints' of the global system of agglomerations in their global hinterlands. What ever happened to hinterland? Is a synthetic territorial association of the exploded geographies of production and resource extraction to the shifting forms of agglomeration still possible?

In 2008 the Joint Research Centre of the European Commission released a state-of-the-art "Global Map of Accessibility". Part of a background study for World Bank's 2009 "World Development Report: Reshaping Economic Geography", the map offered a visualization of the whole surface of the earth as a gradient corresponding to changing travel time to major cities (Map 01: The Global Accessibility Map). Agglomerations appeared not only associated with size and density but also as a function of the operationally of transportation networks. But furthermore, it offered a rather striking observation regarding the relation of agglomerations to the organization of the planetary terrain: 'Almost 60% of all cultivated land is within two hours of a city (...) These patterns of land use around urban areas mirror one of the most important models of economic geography, Johann Heinrich von Thünen's model of The Isolated State'. The famous model developed in 1842 by the German economist, aimed to address the optimum configuration of agricultural land around a hypothetical town in pre-industrial Germany. The model assumed a centralized market at which all exchange between producing farmers and consuming buyers occurs and differentiated the value of agricultural products and the resulting patterns of cultivation in successive rings according to the changing transportation costs from each part of the region to the sole nodal agglomeration. This model probably showcases the most persistent conception of the city – hinterland relationship in the form of a 'nodal-region': The conception of the city as a node of agglomeration and its hinterland as a surrounding bounded territory; and the understanding that agglomeration and the surrounding territorial patterns form an indivisible unit connected through transport and exchange. Trade (in agricultural and other goods) and the functional areal organization of the territory are two sides of the same coin.

And while until the 17th century, the socio-metabolic relation between cities and their productive hinterlands coupled was confined at the regional scale, industrialization and consecutive waves of capitalist development have largely exploded these boundaries. Already in the early 20th century the principles of von Thünen's model were scaled up to the world: The densely urbanized and industrialized core of the developed countries in Europe and the United States was conceptualized as comprising a single 'World Metropolis' or a 'World Thünen Town'



controlling and depending upon the global hinterland that extended to all the areas of the earth that participated in the commercial system of exchange. And while these speculative approaches reflected the early globalization brought by the opening of trade and the increase in the range of transportation systems that characterized industrial capitalism, the contemporary condition of neoliberal globalization seems to introduce an unprecedented complexity in the patterns of human occupance of the earth that can hardly be abstracted to the determinacy of transport costs (Map 02: The global system of agglomerations overlaid upon the global agricultural production landscape).

A series of parallel processes seem to destabilize the city hinterland relationship and challenge its definition: First of all, the nature and spatial morphology of agglomerations are far from the nodal conception of traditional models of city-region. Where the region used to correspond to a unit of functional interrelation between city and hinterland now it assimilates more a unit of agglomeration. Moreover, continuous agglomerations stretch across vast territories creating interregional patterns generalizing and surpassing the megalopolitan phenomenon that Gottmann first studied in 1964 over the north-eastern seaborne of the US (Map 03: The diffusion of Agglomerations in Europe). At the same time the intensity of infrastructural networks is becoming more and more interwoven with processes of spatial reorganization. While this interweaving has characterized the 7000 years of urban history, a number of factors has made the study of this interrelation even more crucial in the last decades: the intensity, power, spread and reach of technological developments which has largely led to the pervasiveness of reliance on urban life on material and technological networks; the duplicating, extending variety and density of networked infrastructures; and the speed and sophistication of the more powerful and advanced infrastructures. The resulting social, spatial and technological interrelations, that mediate that city hinterland relationship, have thus created an extremely complex infrastructural landscape extending far beyond even the most extended agglomerations. And while agglomerations become more and more continuous and the infrastructural equipment of the earth's surface densifies, the resulting patterns of association and development are far from isotropic. Contrary to simplifying neoliberal aspirations of a flat world, what seems to best describe the contemporary urban condition is the concept of 'splintering urbanism' highlighting the selective interconnection of territories to the global circuits of capital accumulation and the resulting fragmentation and geographical disassociation of cities and hinterlands.

Most importantly, the management of the circulation system of exchange is increasingly consolidated to a few multinational corporations that aim to benefit from the reorganization of commodity trade. While up

to the 18th century the cities were largely defining their hinterlands, either through controlling their surrounding regions or through establishing long distance trade connections (e.g the Dutch or Italian cities that operated largely as city-states), with the development of the sovereign states their administrative power over their supplying territories were largely lost and absorbed into the national organization of territories. Within the contemporary context however, the territorial power of states is being restructured and interwoven with multinational corporations that tend to monopolise the production and distribution of food, energy, and raw materials. The global hinterland can thus be conceived as a hybrid socio-techno-geographical construct: on the one hand flexibly articulated by a set of multiscalar actors and on the other hand still grounded in the specificities of natural geographies and the development of massive infrastructures that mutate them.

Within this context designers are struggling to position themselves within what appears to be a paradoxical condition: While the urban fabric (in its broader sense including both settlement patterns and infrastructure systems beyond dense agglomerations), seems to be thickening across the world, the modes of engagement with it seem to invest more in the understanding of processes that activate it and less in its inherent spatiality, its formal dimensions, geometries, materialities. With global hinterlands increasingly mediated through infrastructural systems and logistic operations there is a growing interest in understanding and addressing in design terms modes of flexible occupation and accumulation. Fascinated by the elasticity of flows and processes, designers have largely ignored the possibilities stemming from appreciating and manipulating the more sclerotic territorial typologies that have been crystalizing around them as means not only for operational but also formal control over territories. What ever happened to the global hinterland should make clear that design has to go beyond the binary rapprochement between the self- consciously designed centres and unconsciously engineered peripheries and consider shaping their formal relationship in a projective way.

Once we accept that our effective field of action is the transformation of the physical environment, maybe it is time to be comprehensive and radical, and that invasive surgery, prosthesis and new organs in cities might be the only way to go.

VICTOR MUNOS SANZ

#1 Both in such complex organisms as the city and the body, non-invasive treatments are winning the game to other, more aggressive, options. However, those micro-interventions have a radically different approach in each field. In medicine, research in nanoparticles or genomics has set a horizon towards targeted treatments; by affecting the most essential and primary elements in our body, those would trigger a systemic reaction ending up in recovery. The body and its physicality is a given. In cities, acupunctural actions are still limited to physical transformations, since affecting the essential particles, the individuals, is lengthy, uncertain, and in some degree undemocratic.

Why not looking at the other trend in medical research as an option? Stem cells and miniaturization have shown their potential to build new prosthesis and organs. Even if such treatments are invasive, require periods of adaptation, and rejection is a possibility, they have proven to be effective. Once we accept that our effective field of action is the transformation of the physical environment, maybe it is time to be comprehensive and radical, and that invasive surgery, prosthesis and new organs in cities might be the only way to go.

#2 Probably the first thing to do would be to reimagine a new terminology that would overcome the limitations of the meanings of words like city or region. The new spaces we inhabit, physical and virtual, our mobility means among them, and their relationship with time require a radically different coining of terms. Their frontiers would be mainly intangible, but in the end with a physical footprint and therefore able to be mapped: submarine cables, cell phone coverage areas, Wi-Fi networks, firewalls...

#3 The issue of scale and the recovery of the agency of planning are in my view the key to a sustainable development of human environments. Laissez-faire and micro-tactical interventions working at a local scale have not been able to solve some of the most pressing problems in the contemporary city-regions and hinterlands. Most of these are what Rahul Mehrotra calls “wicked problems”, those whose specific and one-sided solution triggers new problems, and the progressive involution of the urban structures. Learning from past experiences, Re-thinking the agency of planning and of speculative and comprehensive visions, with neither fear of scale nor big politics, hold the largest potential for future practices and therefore future environments.

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In capital, spontaneity promotes entrepreneurship, risk, and critical cycles; in ecology, it offers energy and material flows; in society, it offers self-discovery and empowerment, deep mystery, and freedoms. But how to curate spontaneity in the city? And how to conjoin spontaneous systems? More specifically, how to harness spontaneity to inform, activate, and support the public realm?

Spontaneous Civic Tactics

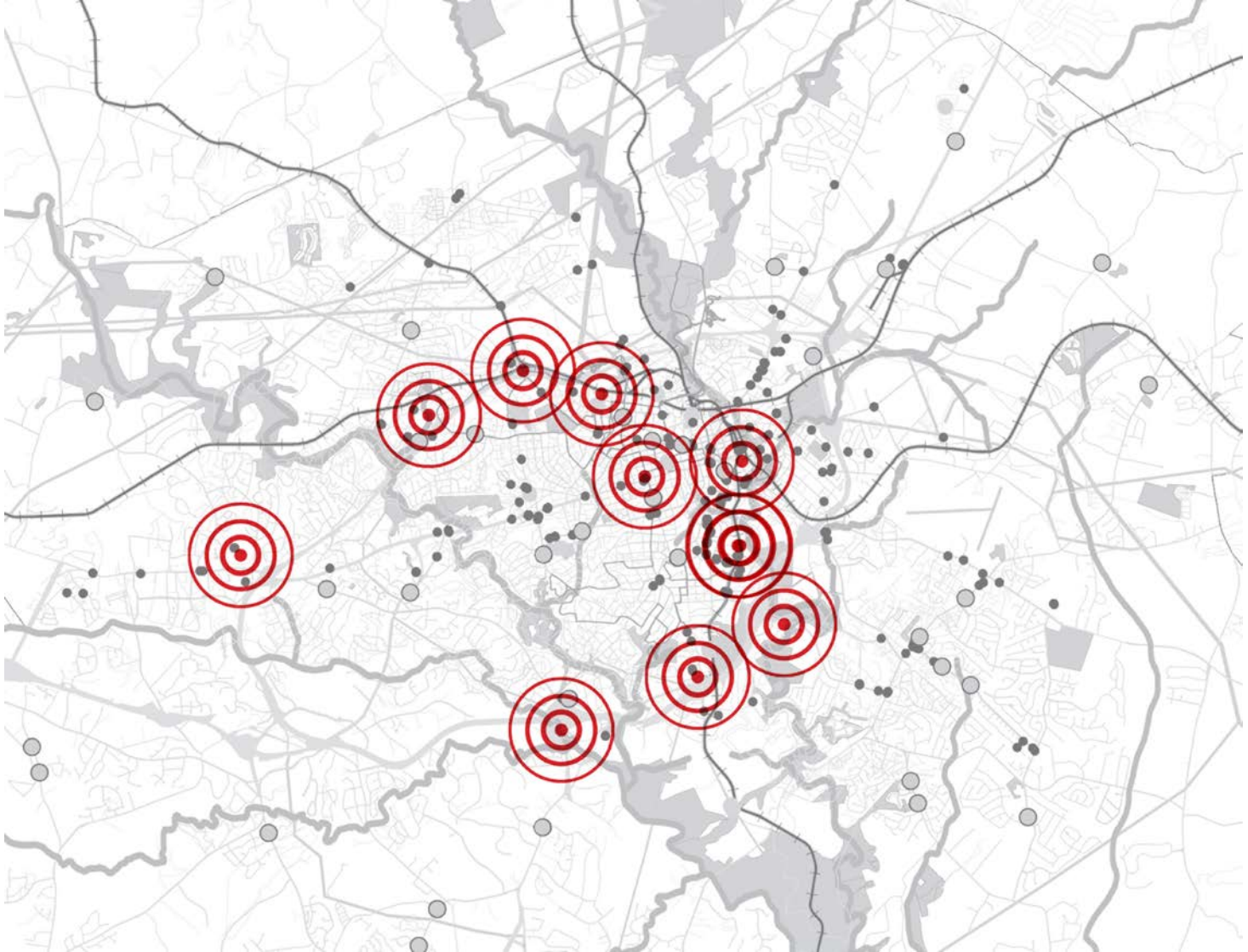
STEPHEN RAMOS & DOUGLAS PARDUE

#1#2#3 Spatial interest in the 1990s bifurcated into local and regional foci, establishing bipolar conditions in which localism was too small to regulate, and regionalism was too diffuse to politically congeal. In response to 1980's crises, constellation strategies such as Barcelona's Proyecto Urbano had prompted the emergence of new political and economic scales of civic intervention and spatial morphologies, framed largely in the rhetoric of global forces and deterministic inevitabilities: a simultaneous expansion of city towards regional identity and shrinking from nation-state. The recent European crisis has witnessed a regression to clear North-South poles, allegiances, and unevenly-distributed, disproportionate consequences, where nation-states have decisively emerged again, and questions of urban agency once again opened.

The shifts from national, to local, to regional, back to national do not intone a death of the city as much a change in the parameters used to gauge and inform scalar and spatial interventions in the city. Current political, economic, and ecologic climates suggest new roles, realities, and potentials for the agency of the city to harness not one scale over the other but extremes to affect the spatial weft and warp of urban fabrics. This agency requires new approaches to the middle ground of the city as mediator between tactile, tactical architectural objects and critical but intangible regional systems. Here, civic projects operate along intertwined axes: as architectural typologies capable of being both specifically luxurious, responsible and catalytic; and as inclusive and supportive frameworks for larger spontaneous systems of capital, ecology, and society.

The myriad current landscape -isms-- landscape, ecological, post-Darwin, infrastructural-- all strive to shape the project and city through attention to and even invention of systems. However systemic tactics often neglect the instrumentality of the city in curating processes of spontaneity, which offer continuous and new life to the city as means for continual experimentation, rebirth, and regeneration along critical fronts. In capital, spontaneity promotes entrepreneurship, risk, and critical cycles; in ecology, it offers energy and material flows; in society, it offers self discovery and empowerment, deep mystery, and freedoms. But how to curate spontaneity in the city? And how to conjoin spontaneous systems? More specifically, how to harness spontaneity to inform, activate, and support the public realm?

What is the city without a boundary? The parameters of natural systems have emerged again as guide and sherpa to the process of recalibrating the city. Megalopoli have yielded a new reality, in which in and out, city and hinterland are no longer distinguished. The city embraces in and celebrates natural systems, and then yokes them to enable civic needs. Olmsted suggested the precursors to this over a century ago with Central Park and the Emerald Necklace, tapping natural processes to convey and clean water and air, and natural constructs to enlighten the citizen. This foundation can be built upon through new spatial morphologies and architectural responses that target and frame constellations of civic needs and system flows. Impoverished areas at risk of extreme natural process, polluted areas endangering communities, or legacies of social or ecological capital stamped out in the rush of infrastructural adrenaline offer new spatial and programmatic logics and new unions between once adversarial forces: Vitruvius's commodity, firmness, and delight reimagined in the context of permanent flux.



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**The city is a funny place.
Something like a circus
or a sewer.**

_Lou Reed

Cities should rightfully be celebrated, defended, and enriched, but we should keep in mind that mayors are not saviors, infrastructure is not neutral, and that there may be a grain of useful critique in the backlash from those in the excluded territories.

JUSTIN FOWLER

#1 The idea of an "endless crisis" as deployed to represent the complexities of neoliberal space (or spaces) — it would appear that the proliferation of qualifiers is perhaps the most acute symptom of this crisis—is little more than a means of saying: "we don't know what we want, and we're upset we aren't getting it." The problem here is less one of the postponement of judgment than it is a lack of awareness about the locations of the positions from which judgments can be rendered. Architects, designers, and historians are thoroughly capable of rendering judgments on the work of their peers, but only within the walls of a school, an office, or a discipline. Yet, when engaging with the complexities, commodities, and contingencies, etc. etc. of the outside world in the mythical quest to attain "agency" we balk and turn due diligence into its own form of art, as though the entire world must be demystified before action (and judgment) can commence. Those not wanting to wait have assumed the ranks of a class of innovators capable perhaps of saving the world via an app, though often unable to save the design disciplines themselves from the scourge of un- and under-paid labor. But, such an expectation of moral parity across all scales of life is the product of a strange cocktail of classical utopianism and post-colonial guilt. To claim that one must attain a moral high ground in order to judge is to condemn the world to inaction.

If the neoliberal Grendel has stripped us of our ability to act (note: it hasn't), then presumably there is nothing to lose by engaging in judgment. If there is something to lose, then it follows that there is some notion of value one wants to protect by surfing, evangelizing, or drowning in complexity rather than taking the risk of making a judgment. That this calculation is itself a judgment should be obvious and should lead us to believe that one who feigns a refusal to judge thinks the current situation is not so bad—that our cities are indeed "livable" or "smart" enough, that some level of exploitation is tolerable, that growing wealth inequality is a side-effect of progress, that those not part of the service and creative industries will rightfully fall the way of the dinosaurs, that every waking hour can be colonized by one's employer, and that we'll be hit with a meteor or with technological singularity before we have to suffer the consequences of resource finitude. It is perfectly reasonable to adopt any, if not all of these positions, and a great number of people do tacitly subscribe to the entire list, but would not rush to broadcast the assent. It is also perfectly reasonable to take issue with or reject each of those positions, but to do so requires a plan and a set of priorities—a capacity to judge without apologizing for the necessity of doing so. Such a capacity is not of the "shoot first; apologize later" variety where willed naïveté (a judgment in its own right) substitutes for an alternatively considered judgment, but rather is an acknowledgment of human limitation and the fact that judgment always comes from a place in the middle of things, of times, of systems, of spaces, and of other people with whom we bargain.

#2 I'm still very much interested in the framework of the nation-state and remain unconvinced that it will become any less relevant in the near future. It is a vehicle in which a great deal is invested and whose boundaries are formed not through a single allegiance, but instead are the product of a thick range of associations from the geographic to the economic. As state boundaries rarely map with perfect accord along ethnic or religious lines or even along prosperous trade routes, the state scale already acts to prepare or condition people to expect some measure of diversity within their political lives. Such work then also prepares inhabitants of one state for interaction with those of others—breaking down barriers of exchange even while asserting somewhat arbitrary geo-political lines. While a city can function in a similar manner, there is a tradition of walled cities; a nation-state is somehow more fragile and is often forced to renew its strength through a broader appeal.

The danger, as it were, with "regional" thinking is that it replicates the scale of the state, yet jettisons much of its function and/or fragility. A state crafted along the lines of BosWash or the Blue Banana would facilitate economic exchange at the expense of other linkages and reinforce privileged zones of influence. Such a move might ultimately downplay if not remove the need for exchange at all, as the state would no longer frustrate the more solipsistic tendencies latent in the cosmopolitan idea.

The question of high-speed rail in the U.S. is a particularly interesting one and not solely because of its centrality to infrastructural investment debates. It speaks first to the desires and needs of a particular class to live and conduct business in a number of complementary urban areas. It may suggest that people do not want to live where they work or that couples are unable to secure

work in the same city or that job security and/or loyalty has diminished to a point where a person must keep many cities in play (within a certain commuting radius) in order to sustain a desired quality of life should a job change suddenly arise. The portrait here is less of a vibrant interdependency than an anxious attempt to mitigate uncertainty and risk. High-speed rail is the megalopolitan deus-ex-machina which removes the temporal, spatial, economic, and familial costs of movement. Its arrival would herald a region as a place or city unto itself. Then, assuming that each newly-minted megalopolis possessed a different character or economic profile, we would be back to where we started: with a handful of cities and a need to move between them to leverage or exploit whatever differences happened to remain. Is this yet another postponement of judgment on what we suppose the good life to be? If one chooses to live on an express line in Manhattan in order to be able to accommodate a work schedule that requires visits to multiple locations throughout the day or if one chooses to live in that same place in order to be able to meet weekly obligations in Boston or Washington D.C., this apparent fluidity does not make up for the prohibitively high New York rents or the fact that so much of one's budget is devoted to travel.

All of this is not to argue against the need for drastic infrastructural improvements, but rather to suggest that such advances are not substitutes for a more comprehensive and value-laden debate. Both city and nation-state could benefit from a more robust working relationship, perhaps too at the expense of local districts, states, or provinces. Should a New Jersey Governor be allowed to scuttle a vital commuter rail project with implications far exceeding the boundaries of his constituency? Should a city such as Toronto be burdened with a mayor like Rob Ford because of the political sway of its suburbs? Should an entire national government be held hostage by a predominantly rural cadre of representatives whose knowledge of urban and socio-economic complexity is second-hand at best? At the same time, however, Bloomberg ramped up amenities by transforming citizens into consumers. Was this a fair bargain? Cities should rightfully be celebrated, defended, and enriched, but we should keep in mind that mayors are not saviors, infrastructure is not neutral, and that there may be a grain of useful critique in the backlash from those in the excluded territories.

#3 Scale has not disappeared, though it has been backgrounded for a time in an effort to explore the imagined limitlessness of the digital. While many have been under the spell of that imaginary, others, such as those in major financial institutions, have become specialists in exploiting minute differences in scale—be it in fluctuating asset valuations or in geographic proximities between local servers and those which now constitute the trading floor. Groups or platforms such as reddit and Anonymous have capitalized on similar asymmetries, and persons such as Snowden or Assange have managed to temporarily secure their own safety by wielding and distributing massive amounts of information across portable hard drives and far-flung servers. Cyber-shaming is becoming commonplace and has demonstrated a peculiar efficacy with regard to certain scales—primarily that of the individual who has committed a cruel act or the politician who uses Twitter as a vehicle to promote his sexual wares. Can a business or a government be shamed through similar measures and should an economy of shame be the first resort of a concerned citizenry? That this blunt weapon can quickly devolve into perpetual cyber-bullying is beyond question and might give us pause, as too might the tentative relation between personal shame and public image. Plebiscite is perhaps a more moderate version of this phenomenon, but the amount of frivolous petitions interspersed with some truly substantial ones on Change.org speaks to the precariousness of using the referendum as a model of governance, while a service such as NYC's 311 produces a topography of data in the service of a managerial approach to political challenges. However, if "agency" is the aim, then one might look to press such models further.

Recovering the idea of scale—as a sense of limitation which tempers and enables our agency—is a somewhat different project than the above, but could be simultaneously pursued. Part of this recovery will come out of frustration with the immensity of the questions on the table and part will come from a manner of education that stresses a certain modesty—to produce an awareness of a finite global ecology without demanding that an individual or even a profession assume the weight of the world in its entirety. Here, it's worth ending with a passage from the largely forgotten realist, George Santayana:

> Great buildings often have great doors; but great doors are heavy to swing, and if left open they may let in too much cold or glare; so that we sometimes observe a small postern cut into one leaf of the large door for more convenient entrance and exit, and it is seldom or never that the monumental gates yawn in their somnolence. Here is the modest human scale reasserting itself in the midst of a titanic structure, but it reasserts itself with an ill grace and in the interests of frailty; the patch it makes seems unintended and ignominious.

Urban Protocols organize the description of the society as archipelago of unrelated protocols towards a constructive perspective. They stress the relation between architecture and the norm, the rule, the law. The relation between the user and the limits of the proposed ready-made frames he can enter to, the possibility of a change of rules, the investigation about what could be common for all.

ARISTIDE ANTONAS

#1 The cities we live in will lack soon some of the conditions we were used to consider as given for them in their recent, modern past, at least in Europe. What is changing in an invisible way is related to what we meant as the city's legislative frame; the hidden target of civic "modernization", omnipotent for the city's transformations till now seems not possible to be operative any more. Through the change of this perspective the contemporary cities do not envisage any more the same, future , the shared desired destination of their material structures; seen suddenly as remains of a fallen order the cities lost their normal view to the future; this is not only a problem; it marks an opportunity; we do not know where the cities will "conclude" "after the financial turmoil" we entered some decades ago. Some derelict modern city centers become emblematic not only because they call us to invent some possible life for them but also because they open a field of investigation concerning a representation of the core to the financial problem of today; the empty modern urban ensembles condense the problem; the provide an image of it. Emptiness is not however a neutral word; it marks an emptiness of something precise; the investigation concerning the city centers we refer can start as an elaboration of the concept of emptiness; a history and a theory of emptiness may proceed our thoughts. The empty city center is a field destined for archaeology and in the same time it is in its empty field where we can investigate possibilities for the new conditions that derive from the violent recent urban transformations.

Some of the cities we know become emblematic fields of unforeseen transformations; their legislative concept, the framework that proposed –sometimes hypocritically- a place for equal inhabitants and equal services for all as the ideal city of the banal welfare state (as imaginary place) is not needed any more. The city does not prescribe any more the common tasks it used to assign. A new era of crudeness will need no justification for the acts of injustice that will follow. Even if never accomplished, the dream of the modern city and the perspective leading to are not anymore part of the commonsense. Infrastructure, the machine of distributing equally the city's services starts to operate differently. At the same time the citizen of the past, the monad of this machine is vanishing; this figure of the modern city with prescribed minimum civic rights is giving its place to another type of actor of the urban life: the user: the user we refer to is first and foremost obliged to accept rules in order to enter the platform or the system he uses. The user functions under the legislative model of this particular use. The multiplication of this use creates the most important legislative field of today. State law seems impotent in front of this small scale legislative network that operates as a system of parallel applications.

We think in this context that some new ad hoc legislations run by invented protocols may use existing empty spaces in order to found alternative urban functions: occupancies or privatizations of the city center present the most "immediate" urban future. Rent provides already a model for a division of time; duration of the situation and use of the constructed pre-established situation; This application-like order of time is adopted by the market, in order to regulate anew the urban world and a post network financial order.

The use of space, objects and devices of every type is transformed thus already to protocols of time. The operating rule of an object becomes the possibility of having it for a while, borrowing it from an always abstract power. This abstract power is identified with the infrastructure. Renting parts of a huge infrastructure transforms all possible object hood to a function of debt: we always already owe to any materiality the immaterial relation to its performance, its use. The rule of the user is a time function. An urban reading of Maurizio Lazzarato's Making of the Indebted man could drive to an always rented - no more public space for the cities; can we resist to such a future? We may have to change our design strategies towards other more inventive ways of abandoning what was conceived as the public domain.

#2 The framework in which cities and peri-urban regions could be explored today is related to a different reading of the nowadays, urban, declined ensembles. These ensembles are identified by the forms in which they were realized in the past, corresponding now to no single syntactic property; the loss of any homogeneous regulated function is an important characteristic of many city centers and their peripheries. We can already describe what we experience as urban life in different ways. Urbanity found its continuation in the abstract, abstract, deterritorialized Internet-based society. Within the same move the

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neighborhood becomes more important than the city. The neighborhood represents a partial homogeneity; the city was structured till yesterday by a legal frame and a system proposing the amalgamation of differences. Nowadays invisible neighborhoods are rigid and strong, even if they are formed as the result of immaterial structures. This immaterial and strong part of the society is a relatively new fact; it is the western city that prepared it as a particular construction of normality. The new invisible neighborhoods we live into are opposed to the city's homogenizing power. Furthermore, the normalization of everything entered the core of social life: social life is not only regulated by an infrastructure, it is performed as infrastructure "itself". We inhabit the data infrastructure and understand ourselves as part of communities because of this "life within the infrastructure". The priority of data flow as core of every infrastructure characterizes of course the traditional networks of water and electricity; this became a banal observation. Nevertheless the unrepresented data flow became today an abstract, infinite, interior space in which we also perform the experience of the community; the city life up to a certain point happens in the infrastructure; in the same time the Internet, the same live archive, functions as the technical basis of an operating machine. All of its scripts seem now fragmented; they do not form discourses, they are produced while they are already archived; they do not open questions; they propose a multitude of ready made answers.

Small uneconomic systems, available or not to use, replace all open structures that could drive to investigations. These structures form rigid interiors and are configured as a mass of letters, sentences or propositions that may only define functions. I do not suggest here any nostalgia for the lost power of discourse in the past but let us face the field we find ourselves when we say we live in cities or in their peripheries. We also and maybe foremost live in abstract, deterritorialized neighborhoods. As a prolongation of urban experience the life in the infrastructure drives the community of the Internet in an always already archived "present". If our responsibility as architects is to construct different descriptions of the urban phenomena in order to think about cities in a different way we have to consider the schism between this function of the common and the scene on which it is played: an empty scene and a theatrical performance. The consciousness of this fact needs a level of representation: we have to investigate about this schism of the empty scene and the theatrical performance; we may directly propose that this performance seems to follow predetermined scripts.

We could deal with the new operating model of the "modern city remains", described now as an empty scene; we immediately relate this investigation to Aldo Rossi's concept of scena fissa. Today what is performed as a theatrical act in front of this dead scenery is expected as an over defined field of distinct, separate "systems of rules"; the separate rule systems form already a confused archipelago; this archipelago of protocols replaces what we were used to conceive as city in the recent past; including islands both in the Internet (as the usual series of unrelated applications) and in the empirical scene of the "city remains" a system of rules provides isolated micro structures that can act in parallel, in different layers, sometimes overlapping one another and defining the urban experience of today; autonomous small scale legislative forms are more and more frequently operating; we belong to them when we interact with others or with different type of services. They happen in determined Internet platforms; they start colonizing our experience of the common.

The tension of the city to be conceived as a system of coexisting, different, rigid protocols forming pseudo-autonomous spaces has two facets: the first one drives us back to the barbarian pre-urban condition where historic city neighborhoods would be well defined, sometimes restricted or enclosed; the second reminds us the concept of "application" in the post internet era. Both concepts mark the obvious loss of unity performed in the urban ensembles today; their difficulty to condense differences; this loss of unity remaps now the concept of the urban. The withdrawal of the state as a guarantor of the city structure marks a first loss of "the unity of the multiple". A field of inertia replaces the hierarchy of intermediary meeting spaces of the city. By naming this post-urban condition Archipelago of Protocols we insist on the form of the new, different city we experience already: an interface for application-like-"common" structures; more than determining space hierarchies this city globalizes the urban as an experience of entering differently ruled areas, within a field of homogeneous time; the homogeneity of the archipelago is only interrupted by the urban experience of the city cut in distinct thematic fields. This description of the city delimits and isolates parts of the urban experience and propose them as "open durations". By proposing the term of Urban Protocols we question what architecture could do while confronting a city already transformed into an archipelago of protocols. If we agree that this description of the city could be valid we would only have two possible ways to react to it; refuse it and try to return to our lost hopes concerning the modern welfare states or accept it and try to confront it: work within it trying to prepare a different future for it. If the first only names a heroic way to negate the question or a nostalgic idealization of the past, we are left with the second possibility; the question for architecture then will be a question of script: how to define new protocols, theater plays or city applications, shaping structures for the communities that could prepare other uses of space? Can this procedure de-flatten some parts of the homogeneous urban remains? Can it bring back some of the power of architecture to organize emptiness?

#3 We will have to remodel the limits of architecture and its possible definitions. What frame do we still call architectonic? Where does the investigation of the urban start? Nowadays Athens could serve for example as an open urban laboratory, a place where we project the remains of the past to possible futures in a procedure that resembles an idiosyncratic archeology. Experiencing obvious rapid changes, Athens became the urban research field par excellence. Athens became for me the exemplary city of the western decay. It is not an exception but rather a test field for the west; we do not see there an effort to restore something that is happening elsewhere but rather to inaugurate a new season for the relationship between capital and state; the withdrawal of the state and the taking over of another type of invisible power is now presented crudly an with no civic argumentation.

The concept of Urban Protocol names a strategy concerning a possible answer in this frame, investigating the condition of the city today. Urban Protocols organize the description of the society as archipelago of unrelated protocols towards a constructive perspective. They stress the relation between architecture and the norm, the rule, the law. The relation between the user and the limits of the proposed ready made frames he can enter to, the possibility of a change of rules, the investigation about what could be common for all. Hegel argues that "Law is not beyond appearance but is immediately present in it…", in his 'Science of Logic'.

Law is a script of its own architecture. We expect law to be visible when it functions; it establishes space relations. We do not understand law here in a bureaucratic description but only as a technical function of a script. A consciousness of the scripts that are performed forms the core of the civic character of tomorrow.

There is a theatrical side in the performance of law; an urban device (a construction equipped with a regulation) can transform an area; what is still challenging here, what makes the Urban Protocols intriguing is that they already exist; they provide the easiest way for the capital to colonize public space; If the Urban Protocols are not decided by a communal voice, they will only be imposed by the capital in a more or less smooth way. They can conclude to a simple system for converting the public space to private. With our work in the office we want to depict the common possibilities of this type of urban devices that work application-wise. The imaginary of occupancy is only one minute away from the concept of privatization. They both propose pauses of the public. This is why I use the term "legal occupancy"; I believe that occupancies are showing an imaginary power of this hidden sinewless condition of nowadays societies; they release an abstract desire of possession and of grounding groups to the traditional empirical space; it is a good moment to think about this imaginary force; an obvious desire for occupation can be transformed to a different concept of city where the Internet should play a different role. The legal regulation about the Internet forms the most important factor of the next city. I do not agree with the radicalization of the opposition between the category of gentrification or occupation; we see clearly in Athens that the concept of gentrification is leading to a conservative isolation of specific city areas and to their further decline. The dilemma "gentrification or occupation" is not yet productive, at least till an occupation claims a legal structure for itself. Rules for legal occupations could lead to different cities. We have to think about alternative renting systems. Occupancies per se do not help this important legislative reform that has to be operated democratically.

Our law is derelict, it is slow and now in Greece so regularly neglected, even when its basic constitutional parts are touched. We keep investing in the hypocrisy of a law system that is not valid anymore; Agamben wrote a captivating book about the state of exception. Nevertheless we are now in Greece experiencing a different problem of hypocritical performance of law. No state of exception at all in Greece!; the exception forms the rule but it is not even pronounced as exception. What happens now in Greece is the opposite. People have to believe that the law operates while it doesn't. The most important part of this new experience is a lack of representation in all levels. An unrepresented power is what is the most scaring part of the Greek experience. The left became the conservative power that wants the law back. The terrible "welfare state" we knew represents the only hope for Greeks. The cities need more than ever the unprecedented. We entered a research period concerning the regulation of a space that is structurally mediated by the network. The materiality of the cities would form a different architecture. In the same time we can think about possible architectures shaped by different legislations; their written form has an evident material part, linked to the possibilities they open. A conscious social contract concerning the micro legislative operations seems the most important intellectual task for today. Giving sense in this idiosyncratic immaterial basis of materiality, experimenting with different types of deterritorialization, understanding the system of rent as an open question about use: all these form the questions of a legislation warth to be be compared to its modern western past.

Viewing an "exterior side" of the nowadays society we live into is a political task. This may sound bizarre: the suspicious representational character of any discourse will be needed as part of the strategy that claims to deconstruct a power that is proposed as unrepresented. This same exterior facade can be constructed and restructured from the beginning at once, in the form of a social contract. We do not postpone all possible representations forever when the main operating power to be deconstructed remains hidden and un-representable; the functioning machine of neo-liberalism, the abstract,

deterritorialized, always moving capital flow has no stable representation. It is always already self-deconstructed and in the same time it presents the most problematic hegemony. We need conventional tools of the past, namely a legal system that will reposition in a new manner some rules for the fragmented protocols within which the nowadays society functions and mostly to guarantee the minimum human rights in the unprecedented legislative fragmentation this hidden power proposes to us. The political plan of today, the one that could deconstruct the stability of an un-representable power needs a certain representation. We can only de-construct this un-representable power by structuring it as a representation and by elaborating on it.

Urban Protocols could provide an experimental pseudo-methodology for a different urban activity; they would explore and transform parts of the city at the same time that the observations on its changing character are done; trial and error legislative regulations can be tested; Athens could serve as a research field or as the example of a decadent modern construction, emptied in its center and unable to return to any conventional revival of its past. The Urban Protocols are meant to introduce legal temporary occupancies of the abandoned city center that will be accepted and controlled by a new type of municipal authority or within a wiki frame via Internet; the purpose of an Urban Protocol would be to establish cluster-like micro-legislative constructions with communal functions. Urban Protocols could form then an experimental answer to the reading of the city as being already transformed to an archipelago of protocols; they form a proposal that needs the consciousness of takes advantage of the current situation of the declined city in order to propose a transformation of the urban landscape; formed as systems of rules the Urban Protocols need a legal frame to be operated and a period of experimentation concerning their possible application. Using a video game terminology we may say that the Urban Protocols could be “play-tested” in the city. They challenge the relation between the city and the Internet; they could be performed and updated via Internet. The system of rules they represent could be transformed and re-established easily.

The concept of user would function better for their performance than the one of citizen. Nevertheless their most sophisticated part would have to deal with the relation between user and citizen. Their most challenging legislative part is performed by the relationship between the Internet and the state or whatever power took its place while it slowly withdraws; the Internet is understood as the quick functional basis for the formation, installation and function of Urban Protocols but the relation to the empirical space cannot be conceived without rules.

Architecture is formed as a system of empty fields; emptiness is prescribed as a function of receiving. Different empty fields; are easily defined in cities like Athens. Their overlapping is what we have to imagine as a radical set of proposals. All the city devices we designed in the office challenge emptiness. Empty is the city center, finished, not promising a future for itself any more; empty structures can be also placed like traps, inviting new time structures and creating different unprecedented space structures; but space is not to be though here as an abstract continuum; space could rather be shaped through the performance of readable protocols that can deconstruct the given conditions of urban space through the use of the most simple things. Providing free water, free wifi, stools, tables and lamps is already an elaborated architecture for the city even if when it is proposed with no help of any conventional design. The city asks for a new programmatic phase of architecture.

I think that, distinction and particularity are in play again. Today when everyone is traced via mobile phones or internet it looks like particularity of identity takes shape. In the Western Balkans this shows well on the relatively small scale by innovation that each particular city wants to put forward.

SRGJAN JOVANOVIC WEISS

#1 The issue I think is rather non-territorial, but capital, such as capitalization of major cities into capital cities, like in the Western Balkans. The territories do not matter nor the nation state building as long as the capitals gain their status. What is new is that the capitals are not simply centers of knowledge, practice and production. They induce exchange in a sort of a traditional way the exchanges were established. The second issue is that aspects of urban distinction is taking its turn now. To go back to the reality of creating capitals in the Western Balkans, none of them want to be similar as the other. So now you have eight capitals there, including Tirana, and similarities are simply hard to be found. Every capital works on their distinctions to present them beyond the region. It is perhaps countryside that connects more than the capital cities with their similarities of operations.

#2 I think that, distinction and particularity are in play again. Today when everyone is traced via mobile phones or internet it looks like particularity of identity takes shape. In the Western Balkans this shows well on the relatively small scale by innovation that each particular city wants to put forward. The second thing is that as the region has a vanished ideology of socialism, to become communism one day, individualist principle has take the stage. Beyond that, this principle has take large parts of economy like in illegal, or academically more suited term: informal architecture. Simply the form of cities is far ahead even from the utopian versions of the future just because they work as they are. And who is brave, powerful or stupid enough to tell them what to do? They work the way they found it themselves. The challenge will be how to upgrade what they already do well and add quality of life to it.

#3 I am not sure about the current capacity of agency to work with all these accumulated problems. It looks like individuals have far more power to contribute to the crisis in most differentiated ways. The idea of an architectural agency was pretty, and it is not the first time that it has been evoked. However it lasts as long as the desire for it lasts. I think that we need to fully embrace contemporary modes of production, which are more and more individualized and work towards problems that are ahead of us.

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For some time now, my knowledge base has been focused progressively more on religion and philosophy as they relate to my belief that the ethics of an architect looms large in the context of the built, or for that matter the imagined, realm. No matter the jargon used to describe our current state of affairs globally and/or locally, one's behavior is a sign of one's individual character and our collective character is a sign of the times.

STANLEY TIGERMAN

#1 Understanding architecture as an ethical pursuit, architects traditionally believed in the perpetuation of the species. Building well was a vital demonstration of that belief. Unlike Deconstructionists (or their architectural counterparts - Deconstructivists), more conservative designers believed that "making something from nothing" was sufficient to fulfill their ethical obligation to society. Virtually a decade and one half into the 21st century, that position is under fire from more action-oriented architects. Reasonably so: it seems that, among the other pressing issues of the day, our collective carbon footprint challenges architects to require a moratorium on building until and unless we understand what damage we have already done and become responsible for our actions moving forward.

I don't believe that, once sensing a problem, one simply restrains from any action to contend with that problem. In the spirit, if not the fact of the 3rd part of Kaballah (Tikkun) – or as the title of my forthcoming book stipulates (Failed Attempts at Healing an Irreparable Wound), we are responsible to try to fix things, even as we understand that, once wounded, nothing ever can fully recover without a palimpsest of that injury. Furthermore, even because something bears the trace (scar) of its own imperfection, ultimately that flaw bears on character (something that architects would do well to consider instilling into their buildings.

#2#3 For some time now, my knowledge base has been focused progressively more on religion and philosophy as they relate to my belief that the ethics of an architect looms large in the context of the built, or for that matter the imagined, realm. No matter the jargon used to describe our current state of affairs globally and/or locally, one's behavior is a sign of one's individual character and our collective character is a sign of the times.

So far, in the first decade and one half of the 21st century, the sign of the times in architecture, collectively speaking, is abysmal. Architects increasingly "follow the money," even as that pursuit is ever more tainted by governments more interested in prestige than morality. We still pollute our ever more bereft planet, even as "man's inhumanity towards man" is alive and well throughout the world.

But it is the respect towards an 'other' that remains our most significant challenge. The writings of the 20th century philosophers Martin Buber and Emanuel Levinas should be required readings for American and Western European architects alike who, at this writing are virtually without any ethical course work while still in school, presaging professional work that seems to prefer marketing and branding to morality and ethics. Of course, there is the one-off example like the Pritzker Prize-winning architect Wang Shu and his partner (and wife) Lu Wenyu whose sensitive re-use of the detritus of demolished buildings stands in stark contrast to 'ambulance-chasing' Western architects who insist on wallpapering their country with glass curtain-wall behemoths, virtually ignoring any and all contextual cues.

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WORKSHOPS

Over the last century Daniel Burnham's city has experienced unprecedented urban transformations that positioned Chicago as a global city. Known as City of the Big Shoulders, Chicago and its cultural heritage casts infinite stereotypes on the city and its citizens. However, when we look at the larger Chicago region the connections between the city and its hinterland remain unknown. The truth is that there is a spatial phenomenon of much larger implications that merits greater attention. The "thickness" of the Chicago/Great Lakes region has not only historically been constituted as a strategic region that converges complex ecologies and infrastructural system, more than ever it continues to be a critical space. In response to the ecological, economical and cultural challenges of the 21st century, the Chicago Expander is a new research initiative at Archeworks that brings together thinkers, designers and practitioners from a variety of disciplines to construct a new discourse on architectural regionalism and develop new design models addressing large scale and small-scale design. Within this interdisciplinary framework we aim to reconceptualize Chicago's position in the region and the world. In order to meet these challenges the workshops aim to spatialize the formation of Chicago as a larger geographic entity and recast the city and its region as a spatial model to expand the understanding of the interrelationship of the boundaries between the city and its regional ecology.

#PROGRAM

Within this broader ambition the Chicago Expander will focus on the idea of dismantling the regions prevailing geographic, spatial and cultural meanings to activate critical questions that challenge conventional boundaries [and perceptions] about the city, its hinterland, and position in the world. We are interested in analyzing new urban- and regional formations, microgeographies, boundaries, networks and systems, and how questions of Energy, Food, Economy, Water and Agency shape and reshape region making and region formation processes in Chicago. We argue that within the ambitions of Chicago positioning itself as a global city (with local ambitions), the understanding of the regions microgeographies, new infrastructures, ecologies and demographic flows are crucial in recovering new meanings of urban and regional configurations that are greatly affecting Chicago as a strategic region.

#METHODOLOGY

Throughout the twentieth century, the relationship between nature and the city was displaced and dissolved by the homogeneity of modernity. Within this milieu the domain of representations subsumed the city to the extent that it erased any traces that define it. Today, globalization and rapid urbanization have generated new territories and wider angles from which to illuminate these issues. However, these discourses not only lack the vocabulary to articulate new conditions of urbanization, but there is also a lack of perspective on the reciprocality of the urban and non-urban. In response, our program stepped away from the confines of the singular city to cast wider nets to establish a more nuanced perspective. We argued for a new language, not only in terms of how we communicate, but also in the way we address new conceptualizations, theories, and methodologies. This not only included new definitions for the exchange of knowledge, but the expansion of the terminologies we use to better determine how and where we live and how we perceive an architectural promiscuity that currently defines the differences between the city, the suburbs, the countryside, and the hinterlands. However, in order to get a clearer perspective of the problematique, for us it was not simply about drawing larger circles around problems emanating the architectural, urban, or regional dimension into a geographic, or even planetary angle. With larger circles drawn around our cities, or as what Jacques Ranciere refers to as "le partage du sensible," or the distribution of the perceptible, the perception excludes as it includes. The problem comes from the fact that the "code" for the representation of the differences is not enunciated from outside, from some absolutely universal or objective theoretical place; it is enunciated from within the conflict, or as Etienne Balibar argues, "it totalizes the world in a comprehensive representation." The problematique, thus, is not concerned with issues of representation, but with the fact that the epistemological frameworks we heavily rely on, continue to create blindspots in research, policy and execution. The way we are absorbed within the network and the sheer multiplicity of our output, not only leaves us ill- equipped to handle challenges of the twenty-first century, but it make it evident that our ambitions continue to address complexity with even more complexity. In this sense, the Expander workshops had the agenda to avoid continuing to shape our world, primarily cities, based on cartographic understanding and how they frame "the real" world. We believe the world does not evolve around this analysis. It gives us perspective, and with the evolvement of technology our views become more diffuse and powerful. It is an illusion to continue believing that we are able to approach the city––as it is, and continues to be the measurement. Richard Florida notes, "[it] is cities, not nations, that are the fundamental economic, political, and social organizing units of our time," making them major players for a sustainable and equitable future––and its perfect description through quantitative resolution that is forever increasing, and as said before, with it its methodological frameworks. There is this idea that the best description of the world is the one with the highest resolution. But this is totally an illusionary framework. It says nothing about the underlying processes." High resolution, in other words, is not a substitute for sound theory. True nature emerges out of resistance and it is a response to conditions that are no longer lived and understood practically. In order to most effectively approach these issues, we chose the workshop format at Archeworks as the ideal framework to close the gap between multi-disciplinary applied research and policy applications, and develop a smaller scale network of scholars, scientists and theorists. Our interdisciplinary outlook, collaborations with other research programs/labs, as well as open source platform sets the foundation to constantly self-adjust to facilitate col-

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laborative co-creation environments for open exchanges of knowledge between local and international entities. We build bridges to universities, other institutes, businesses, government, centers for culture, society and environment, law and public health institutions in order to position research at Archeworks at a regional, national and international scale to better engage with the challenges of Chicago's future.

As part of the workshop, we have also launched a lecture series with local, national and international lecturers. Our first lecture featured Neil Brenner from the Harvard University, Graduate School of Design. In his lecture at the Graham Foundation, Brenner addressed "The Urban Age in Question", arguing against contemporary ideologies of the "urban age."

#WORKSHOPS

Energy and Economy

In the first two workshops, we propose to call to attention the persuasiveness of Chicago as an epistemic frame, and recast it as a spatial framework in order to bring new issues into focus that will allow us to explore unforeseen proximities between concerns separated by time and space. We propose to talk about Energy and Economy in workshop one, and Agency and Consumerism, and its implications on architectural, urban and regional developments in workshop two. The objectives of the workshops are to contribute to a larger understanding, not only of the subsets that make the urban fabric, energy and economic networks, but to also look at the agency that drives it in order to con- tribute to new understandings, what is at stake in the development of cities and regions. In New Geographies 2 "Landscapes of Energy" Rania Ghosn argues, "Energy needs space. It exploits space as a resource, a site of production, a transportation channel, an environment for consumption, and a place for capital accumulation. Whether oil pipelines, dams, solar panels, nuclear plants, or wind parks, all industrial energy systems deploy space, capital, and technology to construct their geographies of power and inscribe their technological order as a mode of organization of social, economic, and political relations."

In the first workshop we explored what the spatial "potentials" of energy are in the Chicago region and how this can strengthen the location within the potential of a leading role in a sustainable global economy. The second workshop will build on the first subject and will develop methodological and theoretical frameworks to set the foundation for critical global, regional and urban perspectives. We argue that after two decades of financial capitalism and a certain attitude that came with it, it is time to reclaim Agency and shape larger scales and contexts addressing questions related to infrastructural problems, urban and ecological systems, and cultural and regional issues. In the workshop we will lay the foundation to reexamine tools and develop new strategies to link what has been understood to be either separate from each other or external to the design disciplines.

Much of the analysis of the two research subjects we are pursuing comes from critical urban and regional theory, environmental geopolitics, ecology, social anthropology, and economy. Our discussions will focus on situating Chicago and its region within the contexts of Energy, the Economy, Agency and Consumerism, and with the aim to develop arguments on the impact of global changes on regional and local spatial dimensions, as well as the emergence of new local and regional networks.

Agency and Consumerism

While The first workshop engaged with Energy and Economy, and examined how the potentials of both determine Chicago's future in playing a leading role in a sustainable global economy, The second workshop will build on the first and will develop methodological and theoretical frameworks to set the foundation for critical global, regional and urban perspectives. After over six-decades of mass-consumption and two decades of financial capitalism, it appears as if we have lost the ability to critically mediate between ethical positions and aesthetic formulations. With the decisive battles of the future for the quality of life fought for in the cities and its regions, we are asking for a renewed advocacy of spatial practices. At question are the ramifications on the planet's environment and human relations. What are the strategic issues we should target for a future? What is the Agency for these outcomes to be positive?

The objectives of this workshop are to contribute to a larger understanding not only of the subsets that make the urban fabric, but to also examine the Agency that drives it, in order to contribute to new understandings of what is at stake in the development of cities and regions. Has there been Agency in consumerism, commercialism, capitalism, and subsequently in sprawl, suburban developments, malling, infrastructure, and as a result in extensive infrastructural projects? Is there Agency in how we strategize growth, land-use, density, transportation, and technology? Or how we make and shape social, cultural, political and ecological systems? Can we recover scale and its limits in Chicago and its hinterland to understand boundaries and jurisdictions that depend on how to hold a heterogeneous contemporary city together? Is there Agency in securing our resources for the future? And how does this relate to city design and setting structures for growth that will guide investments for the public and private sector to organize a sustainable development for future cities?

All over the world, whether in the Mediterranean, the Texas Triangle, China, India, Brazil, or Chicago, the hinterlands and its related infrastructures are begging for refreshed morphological models. Architecture has for too long been burdened with the re-

sponsibility of expressing place, of grounding itself in context. Some of the new responses suggest that the next synthesis may be between architecture and geography, helping us to find a more active role for architecture in shaping geography.

In this workshop we aim to shed new light on the Agency of architecture, which perhaps more than ever, struggles to keep up with fast-changing regional structures that are morphing faster than the architecture is actually making them.

Transportation

The third workshop examined Transportation. Whether in the transportation of passengers or goods, since it's founding, Chicago's critical position in the region, the country and the world has been defined by its transportation infrastructure formed by waterways, rail, highway and airports. The city is a major hub in global distribution with one of the largest intermodal ports and the second-busiest airport in terms of traffic movement in the world. From the Encyclopedia of Chicago:

"Chicago's relations with the wider world changed as its transportation links extended its geographical reach. The white areas on these four maps show how far a person could travel from Chicago by scheduled service in a 24-hour period, calculated for four dates at 50-year intervals since early in the city's history. In 1850, travel was restricted to lake and canal boat, stagecoach, and a single railroad line west of the city. Consequently, the zone of access with a day's travel reached little farther than Peoria, Milwaukee, and some other local centers within the region. By 1900, railroads had supplanted all other means of fast long-distance travel, and Chicagoans could reach most of the remainder of the United States and some parts of nearby Canada and Mexico within a day. In 1950, air service had joined railroads to extend 24-hour travel from Chicago (often in combination) to much of North and Central America, as well as some localities in Western Europe. By 2000, this combined reach, together with road service, had effectively expanded Chicago's reach to much of the rest of the well-populated world." H. Roger Grant Source: http://www.encyclopedia.chicagohistory.org/pages/1269.html

In this workshop we aim to investigate the role that transportation has in shaping Chicago and the region while also exploring its spatial conditions, and the visible and invisible consequences of this transportation network.

Water

The fourth theme of our workshop series will examine Water. When the Greek philosopher Thales talked about "water" as the origin of all life, he didn't just fathom water as the material-origin of life, for him it was also about its mystical powers and the understanding of its higher ontological nature. In our first workshop we aim to continue to draw on the geographic as a research and design paradigm and explore water as space. The challenges of the coming century are not only the protection of water––amongst others natural resources––but also how we as designers engage with it spatially. How does water, the access to it, water as a natural resource, water as necessity, and the rescaling of the political questions around water and its urban, regional, national and global interests consolidate decision-making processes? How does water surpass typical boundaries of jurisdiction and governance, and impact larger geographies? With a focus on all scalar dimensions and its intersections and possible overlaps with other systems, we will place water as a central question and reexamine and develop new design-driven strategies for reshaping region formation processes around water in Chicago.

In this workshop we aim to investigate the role that water has in shaping Chicago and the region while also exploring its spatial conditions and the visible and invisible consequences of this water network.

The fourth workshop explored Water. The challenges of the coming century are not only the protection of water–amongst others natural resources–but also how we as designers engage with it spatially. How does water, the access to it, water as a natural resource, water as necessity, and the rescaling of the political questions around water and its urban, regional, national and global interests consolidate decision-making processes? How does water surpass boundaries of governance, and impact larger geographies?

Food

The fifth workshop engages with Food. Food is not only a shared necessity, or a shared way of thinking, but looking at food, its networks, and how food is space will allow us in "an unusual and illuminating way" to explore and reimagine how cities evolve in the future. This is the time to think about Food as a subject and how its socio-economic, cultural, and ecological implications affect the shape and qualities of our cities and regions in the future. Responsible and sustainable Food agriculture and food consumption are crucial not only for world stability, but also for local and regional networks. Food as a subject has critically shaped Chicago and the Midwest; "The city's very existence was generated in the mid-nineteenth century by the ex- change of commodities between the food producing regions of the rural Midwest and West and the hungry masses of the burgeoning nation." Food cannot be understood without the transportation network created around it. Chicago's position at the eastern edge of the nation's agricultural heartland makes it the center of multiple transportation networks. Food lies at the center of the city and region, defining its transportation, economy, ecology and politics.

In this workshop we aim to investigate the role that food has in shaping Chicago and the region at the same time as exploring its spatial conditions and the visible and invisible consequences of this water network.

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All workshops aim to challenge Chicago's global position and examine at its regional micro-geographieswith the goal to understand the dynamics and the changing relationships between the elements (the water, city and hinterland) that define Chicago. Furthermore, we will focus on the slow but visible shift from land use to programming. We will speculate on more productive approaches towards the shaping of specific frameworks—both urban and architectural—that produce a more active relationship between the population, program and form (architectural, urban and regional) influenced by Energy, Economy and Agency.

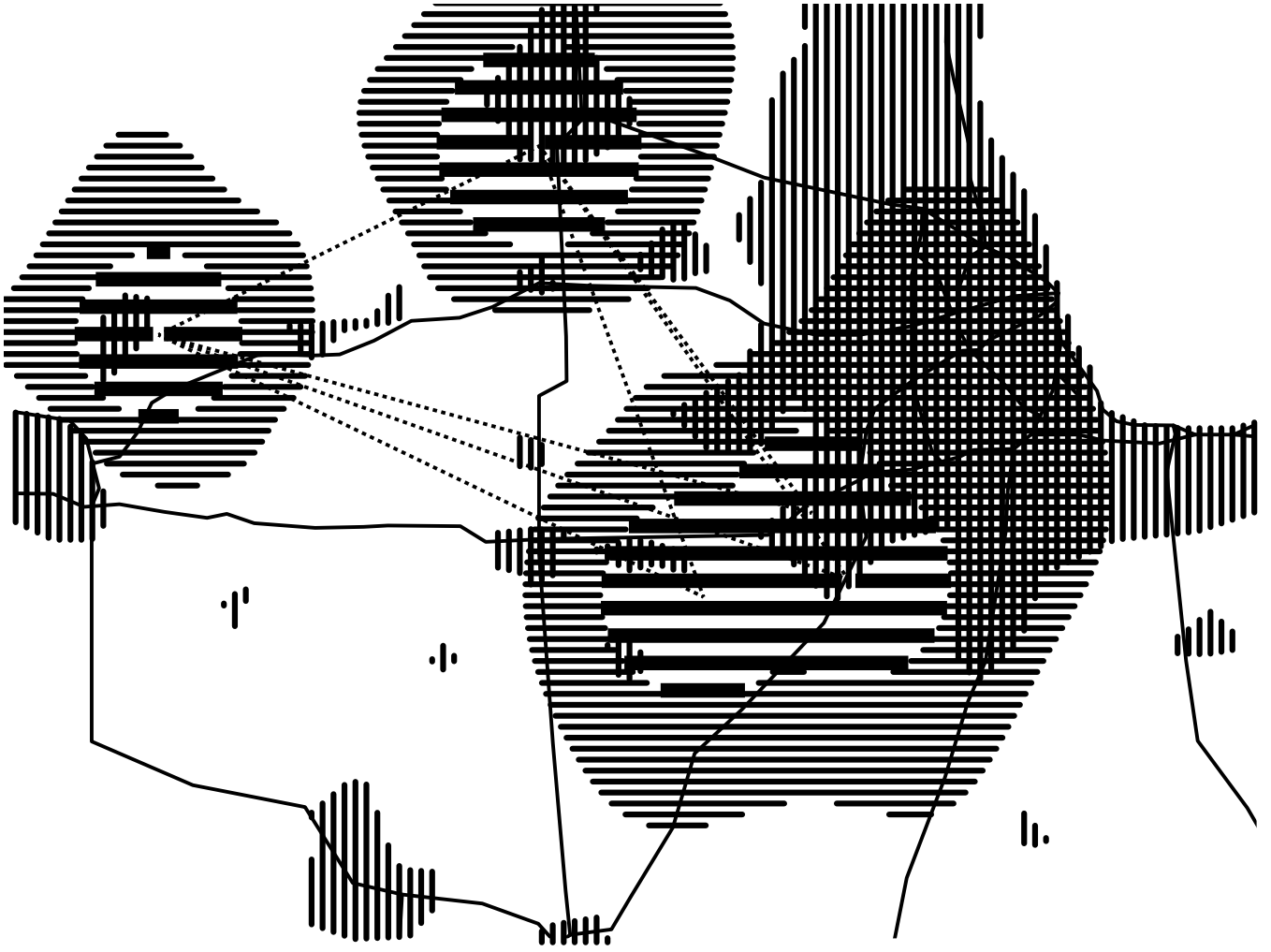
WORKSHOP #1
energy and economy

Andrew Corrigan

In the United States we lose an average of 7% of our electricity during transmission. On average, using mid-range capacity lines, we lose 4-5% every 100 miles (American Electric Power). As we continue to deplete our fossil fuel resources and the production of energy becomes more and more expensive, energy companies will begin to pass on these loses to the end user. In this scenario, energy becomes cheapest when the end user is closest to the source.

Traditionally power plants occupy (and produce) some of the least desirable areas for habitation. Within 2 miles of a given power plant, home values (and rents) decrease an average of 3-7% (Davis, 2010). But this relationship could flip, as energy becomes more expensive. Given the right conditions, with the right buffer space, development could move towards power plants as centers of new urban forms.

Illinois generates half of its power from Nuclear Power Plants and it ranks first in the United States in Nuclear power production (U.S. Environmental Information Administration). Nuclear reactors offer an intriguing possibility as new centers of urban concentration because of their lack of carbon emission. Development would not have to contend with air quality issues inherent with fossil fuel plants. But then there is the issue of radiation…..Fortunately, acceptable habitation zones have



been defined by the United States Nuclear Regulatory Commission. They have defined zones of exclusion, low population, and high population that can be developed, depending on the size and capacity of the nuclear plant.

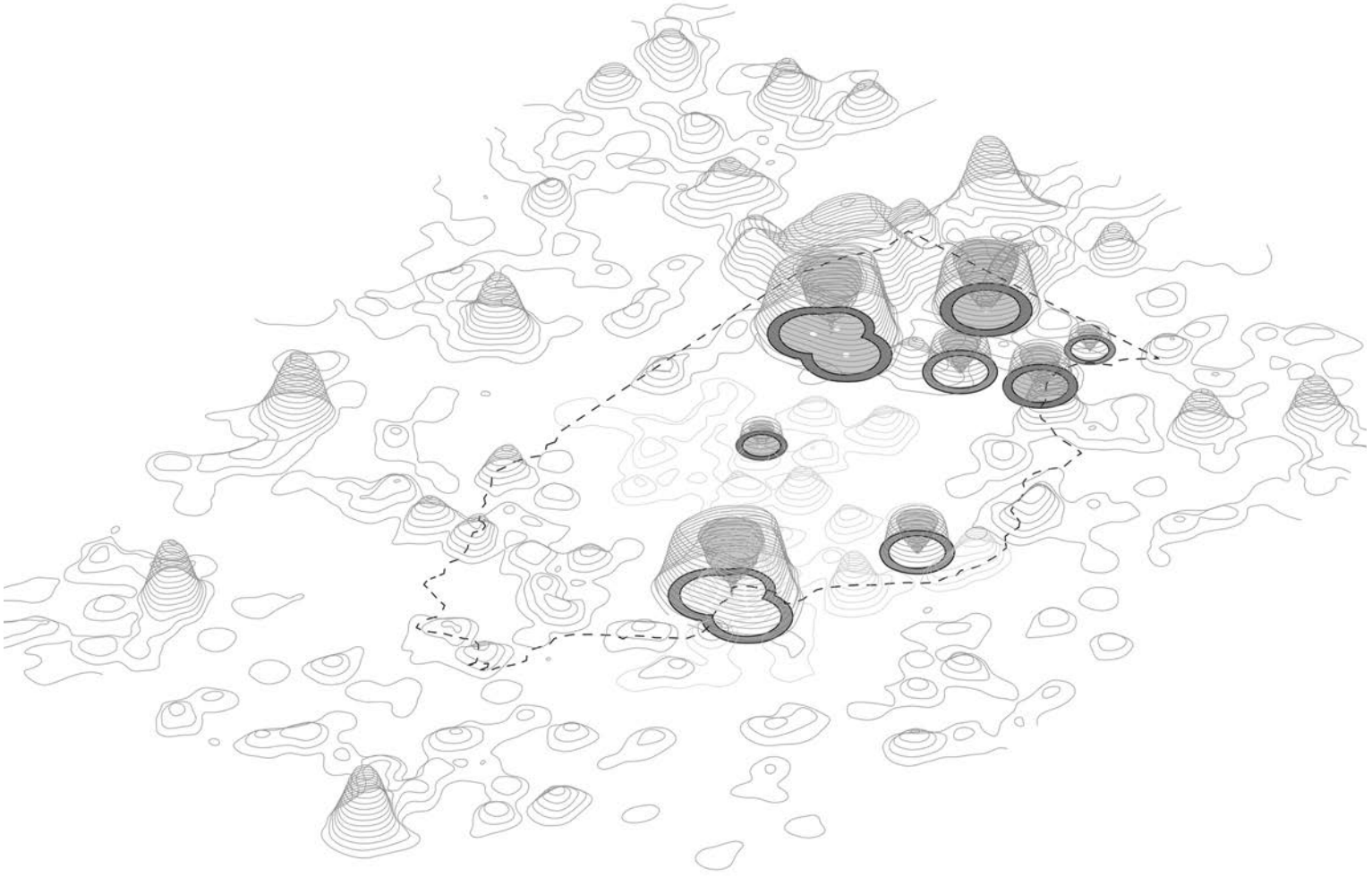
Nuclear Exclusion Zones per US Nuclear Regulatory Commission

1500 MW
Exclusion Zone .88 miles
Low Population Distance 13.3 miles
Population Center Distance 17.7 miles

1000 MW
Exclusion Zone .67 miles
Low Population Distance 10.3 miles
Population Center Distance 13.7 miles

500 MW
Exclusion Zone .43 miles
Low Population Distance 6.5 miles
Population Center Distance 8.7 miles

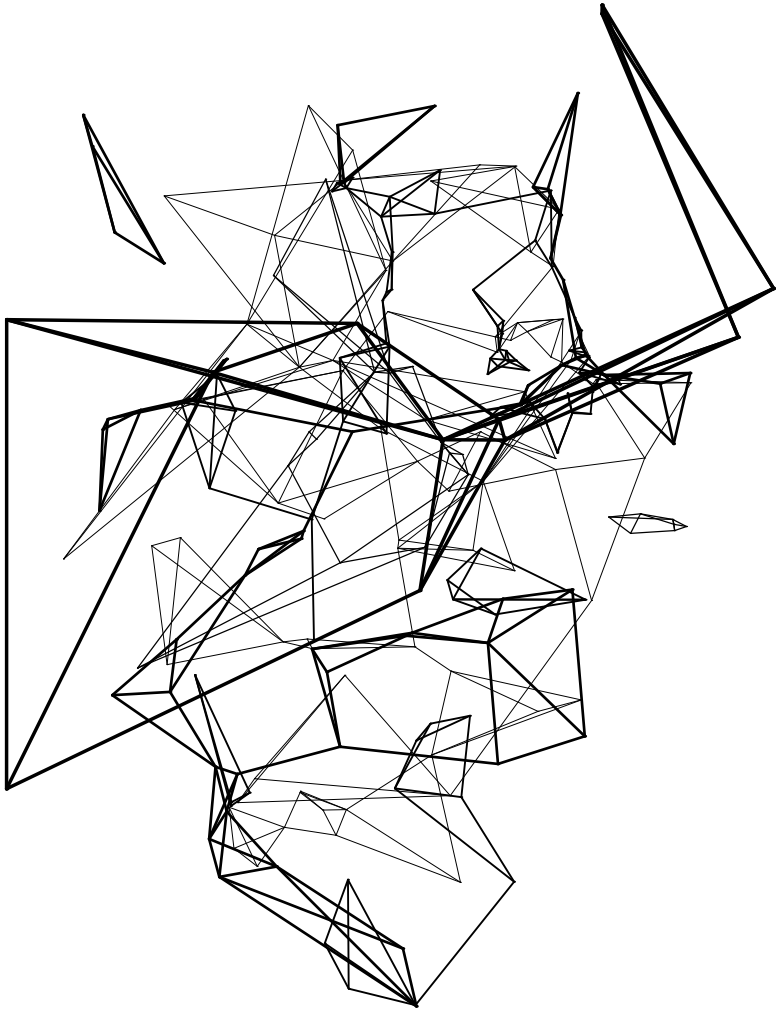
What if these voids began to structure a development driven by a necessity to be as close to the production of energy as possible? What if companies are willing to build headquarters as close as legally possible to the nuclear plants to realize large savings on their increasingly high energy bills? What would the resulting energy megalopolis look like, and what advantages might arise from its formation?



Chirag Patel

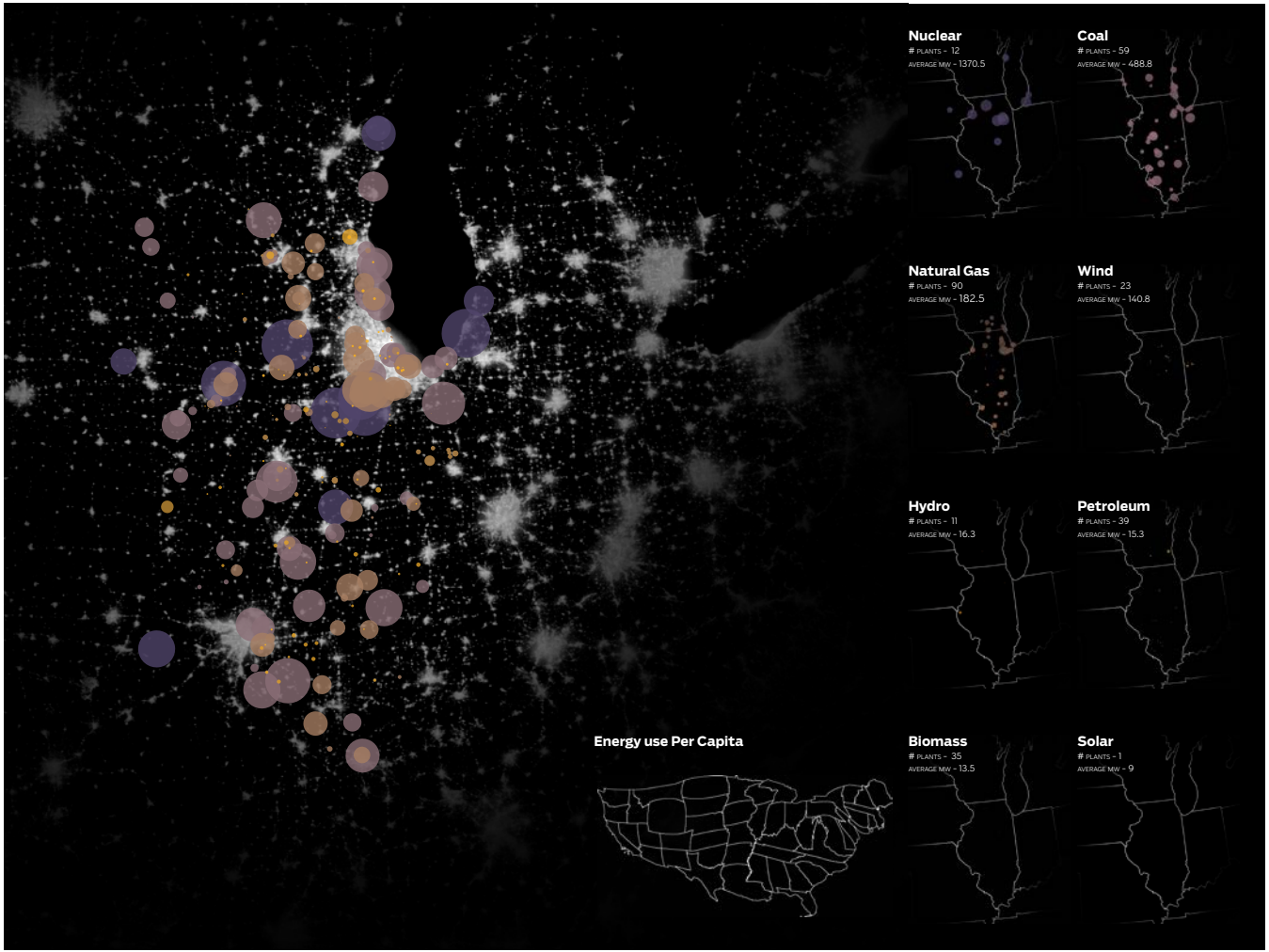
The incandescent light bulb was invented in 1879 which led lighting to become one the first publicly available uses of electrical power. The 1893 Columbian exposition held in Chicago was a tipping point for this transformation in our built environment. Prior to the fair Thomas Edison's patented direct current was the standard for the transmission of electricity. However when it came to lighting the fair Westinghouse Electric was able to outbid Edison using Nikola Tesla's alternating current induction motor and transformer designs. The use of alternating current at the worlds fair was both economical, efficient allowing electricity to be transmitted over greater distances through by using transformers to step up and down voltage. The use of alternating current at at the fair showcased its possibilities to the world, it is now the standard for the transmission of electricity.

This innovation allowed us to move our power sources farther and farther away from where we live. This NIMBY approach to power generation has allowed us to flip a switch to light our homes without acknowledging where that energy is coming from. Energy companies disclose yearly percentages of the electricity generation. Approximately 3% of the energy produced for the city of Chicago comes from a renewable sources. We can pay a surcharge on our monthly bills to receive this small percentage of the total , but there



is no real connection to that power source. In a society that is becoming increasingly aware of what they put into their bodies, and bring into their homes how do we bridge this disconnect?

This exercise aims to analyze and dissect the network of electricity production that feeds Chicago in order to visualize the independent networks of power transmission grouped by energy source. This in theory would create new territories that would link the production to the user in in the network. These new networks would allow us to better understand the real cost of our energy economically and environmentally.

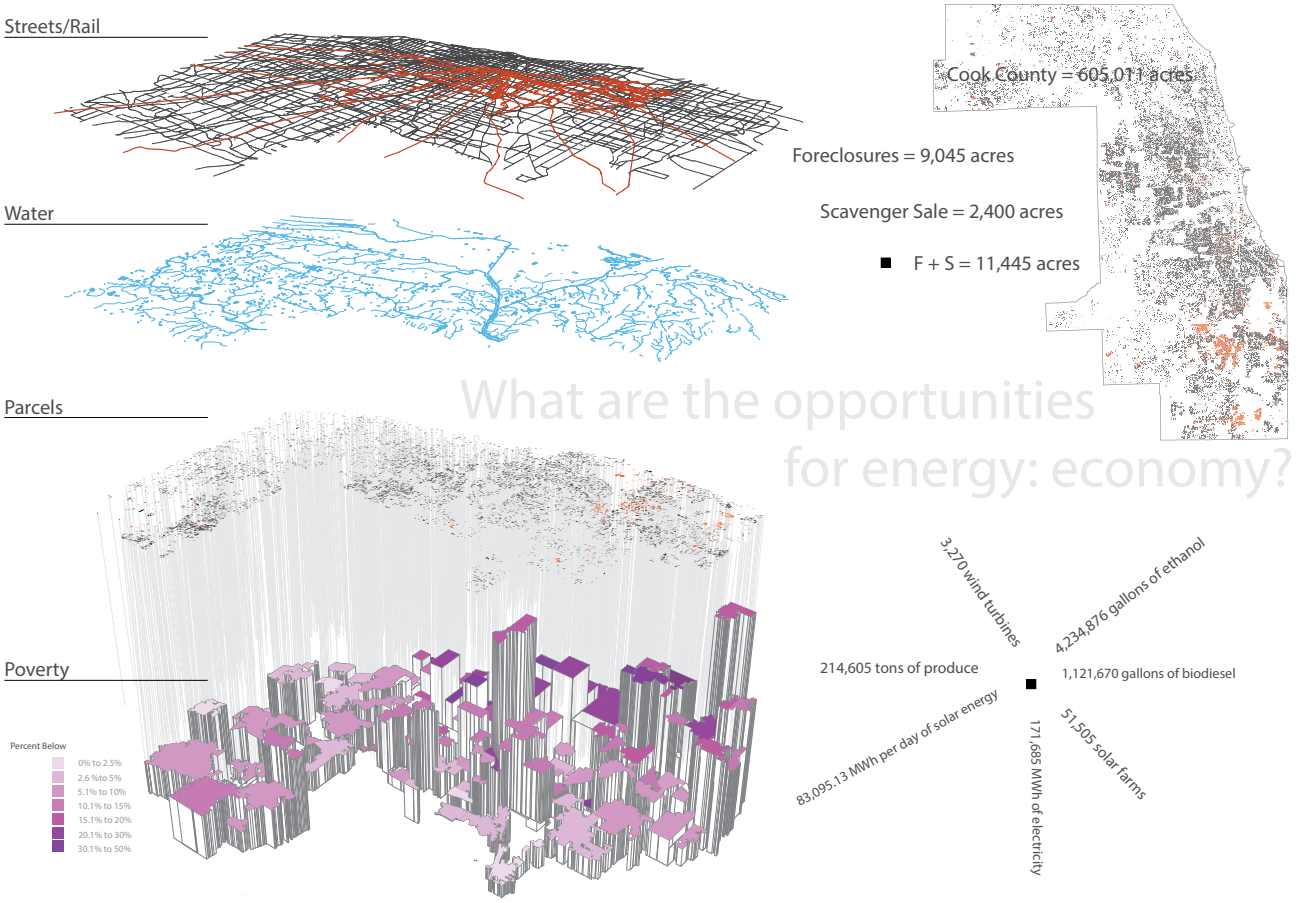


Christina Harris

Poverty : Population : Parcels

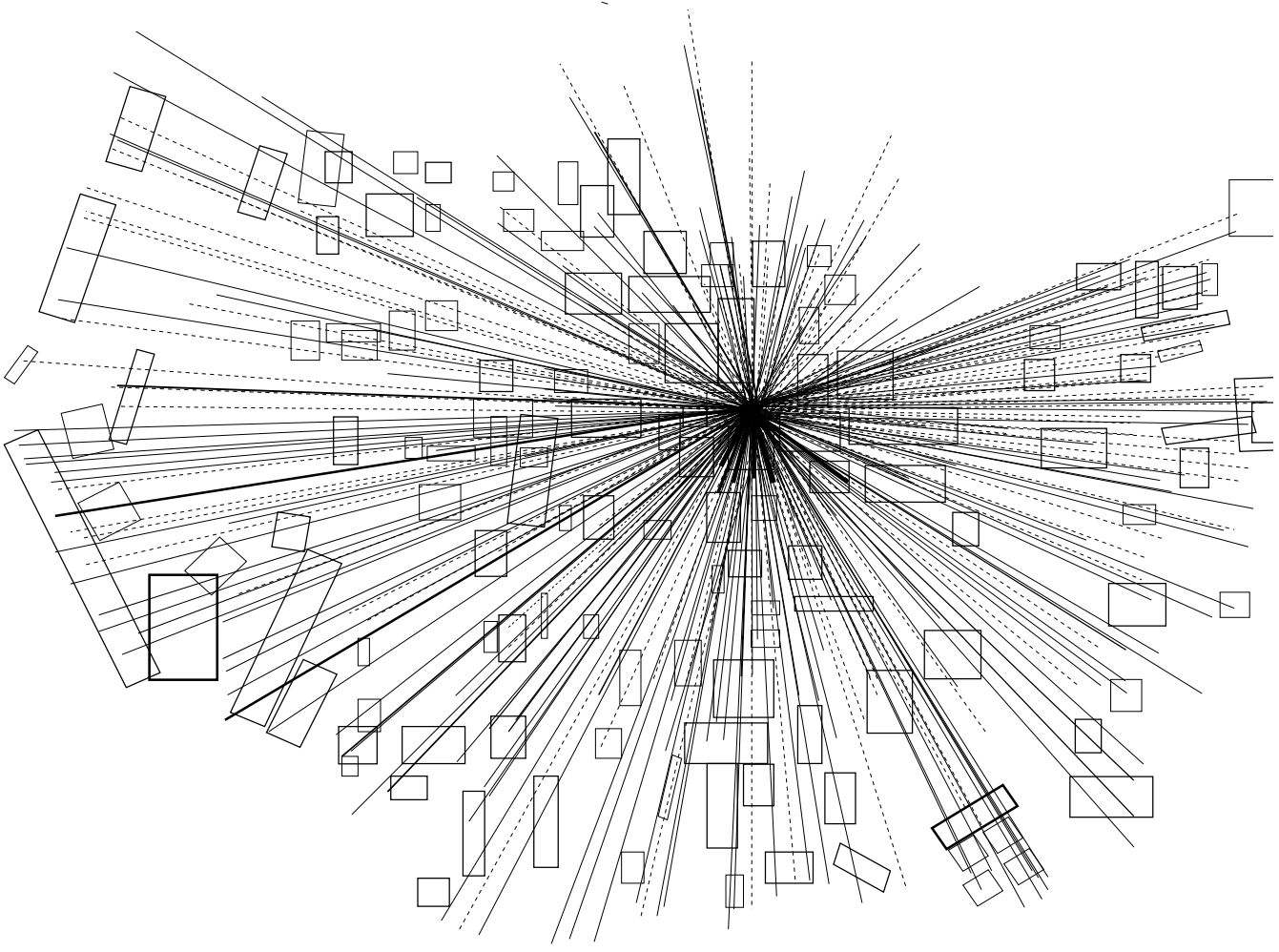
In order to determine the regional energy and economic demands of the future, it is necessary to conceptualize how population and income dynamics are shaping the landscape and potentially altering the relationship between Chicago and the rest of the region. The population in both the city and its surroundings has been decreasing. From 2000 to 2010, the number of people living in Cook County declined by 3.4 percent, and 200,000 left the City of Chicago. Many residents leaving Cook County relocated to other places in Illinois with population increases generally occurring in Chicago's suburbs.

The recession that occurred in the latter part of this decade also had a significant impact on the region's demographics. The foreclosure crisis has resulted in abandoned properties. In 2012, 21,197 properties completed the foreclosure process in Cook County while there were 41,764 foreclosure filings. This number combined with the 18,000 properties with unpaid taxes included in the 2011 scavenger sale increases the number of potentially vacant properties to more than 70,000 in Cook County. This represents approximately 11,445 acres of land. This rise in foreclosures has had a particularly devastating impact on the south and west sides of Chicago and Cook County.



Beyond the spatial implications of the great recession in concentrating underutilized parcels, the recession has also increased the percentage of people living below the poverty threshold. This increase is most starkly seen on Chicago's south side and in the city's south suburbs. As the population of the suburbs has increased, so has the poverty rate. The number of people living below poverty in Chicago's south suburbs has increased by five percent in the south and three percent in the west but has only grown by about two percent in Chicago. The number of impoverished residents is increasing at a faster rate in the suburbs than the city, while Chicago's population is decreasing and the suburbs are increasing.

This project establishes a baseline in order to consider the latent opportunities produced by this changing landscape, and whether there is the space to establish a new economy based on energy production. The adjacencies of potentially vacant parcels and properties as they relate to infrastructure systems, such as the rail and road network, as well as their relationship to water, will impact how a parcel could be used in this new economy (i.e. a site adjacent to rail might be more appropriate to grow biomass while other parcels could have benefits for stormwater management). In examining the region's current dynamics, potential strategies for recreating the region are revealed.

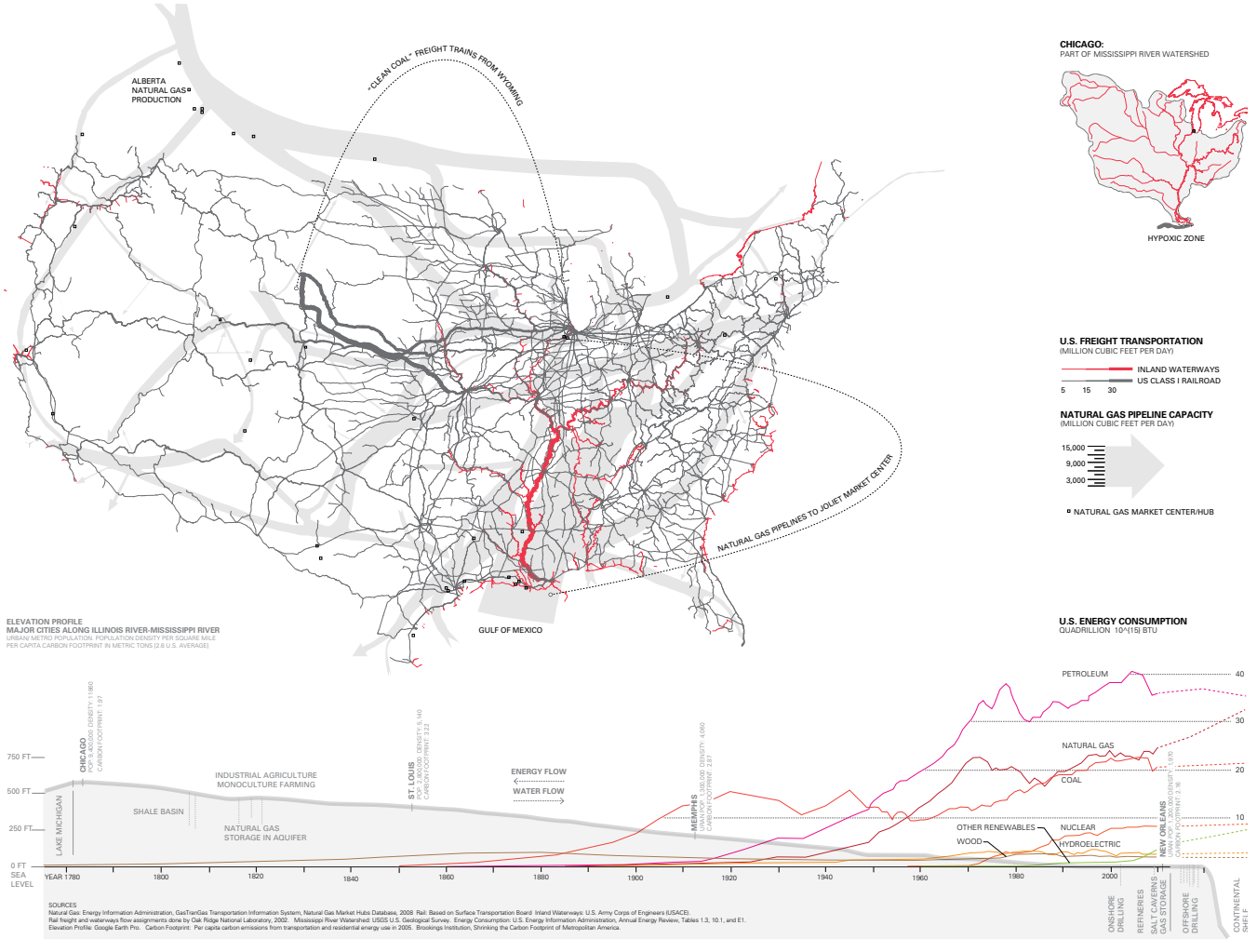


Kerrie Butts

Displaced Geographies: Territory of Energy Production in Chicago

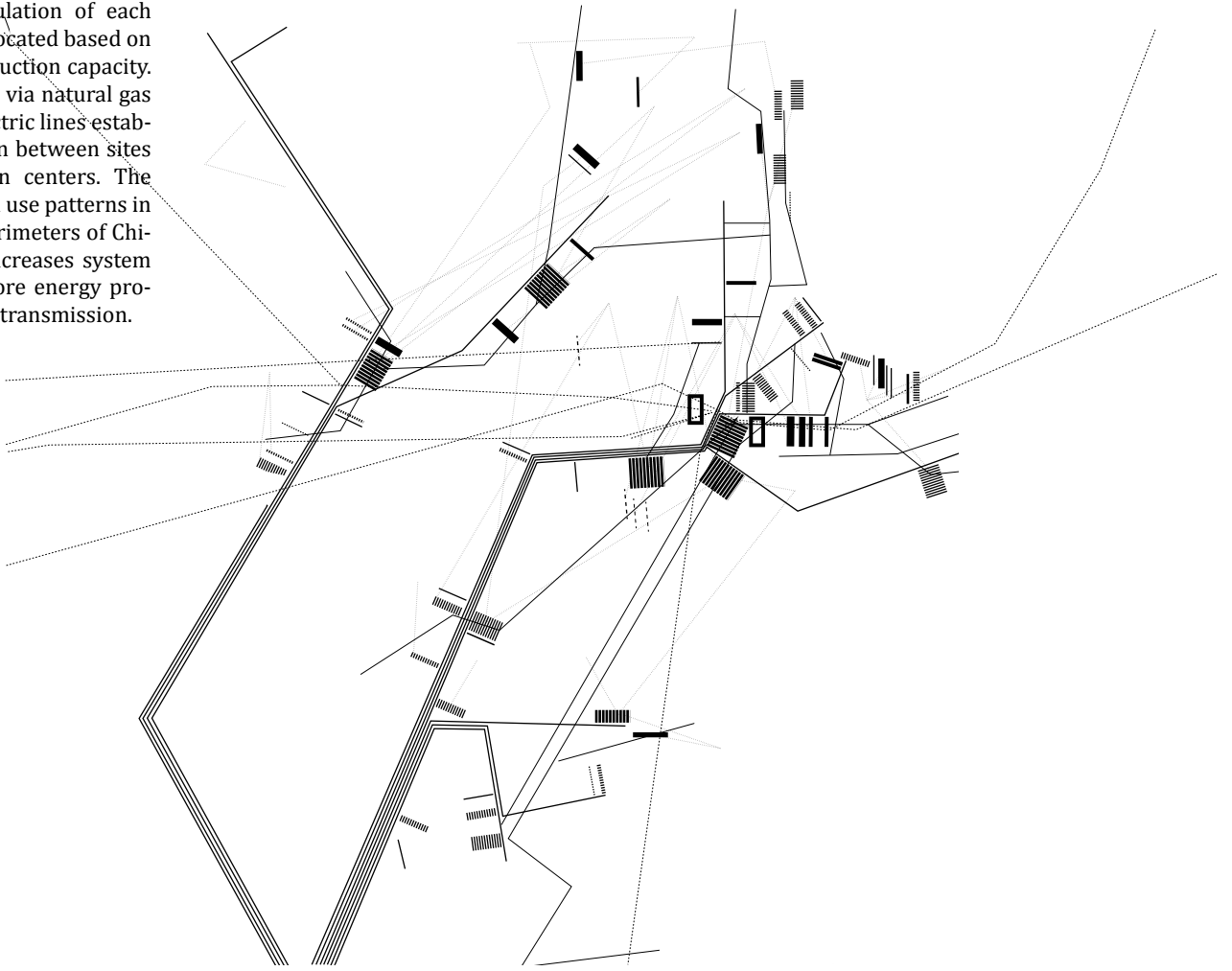
The Mississippi River and its tributaries have evolved to a landscape of production due to its scale and topographic conditions. The natural and manmade water corridors serve as a form of infrastructure. The processes of energy production, agricultural production and waste management rely on the various waterways that compose the Mississippi River Basin. The main sources of energy production, natural gas, nuclear and coal utilize steam for electricity generation and require easy access to massive amounts of fresh water. The cycle of water consumption by power plants elevates water temperatures, lowers oxygen levels and introduces toxins. This has a direct impact on river and gulf ecologies. As a society, we largely ignore the externalities produced by energy consumption. Cities have adopted an out-of-sight, out-of-mind mentality pushing power plants further and further away from populated centers. In Chicago, hundred-year old coal plants are being closed within the city's boundary due to health risks but the increased consumption of natural gas and nuclear energy pose their own unique hazards.

Chicago straddles the watersheds of the Great Lakes and Mississippi River. By engineering the reverse flow of the Chicago River, the city of Chicago is interconnected to



the vast productive network that flows south. High yield agricultural land and ease of transport fueled the twentieth century growth of Chicago and its ongoing sprawl across the flat land supporting the city. Chicago's regional population of 9.4 million and industrial development is primarily located in the river basin in comparison to the lake watershed. A superimposed network of pipelines and high-voltage electrical transmission lines connect points of production to the areas of settlement and industry. Chicago Sanitary and Shipping Canal, the great engineering project that connects the Chicago River to the Des Plaines River and Illinois River, is mostly seen in glimpses as one moves along roadways since limited access points provide direct contact to the water's edge.

The two maps produced look at the flow of material and energy from different scales. At a national scale, energy use projections show little change to patterns of consumption or energy sources, which is realistic but also alarming. Much of the coal that is burned in Illinois is transported from Wyoming and natural gas pipelines extend from Northern Canada to offshore drilling sites in the Gulf of Mexico. Two natural gas market centers redistribute and store natural gas reserves near Joliet, an exurb 40 miles southwest of Chicago. Natural gas is stored in underground chambers in high concentrations across the southern gulf coast and northeastern Rust Belt. At the city scale, waterways are abstracted as spines with power plants scaled based on capacity. The population of each county is then displaced or allocated based on the availability of energy production capacity. The pathways of transmission via natural gas pipelines and high voltage electric lines establish the territory of production between sites of generation and population centers. The mapping reveals different land use patterns in the northern and southern perimeters of Chicago. Dispersed population increases system inefficiencies and requires more energy production and infrastructure for transmission.

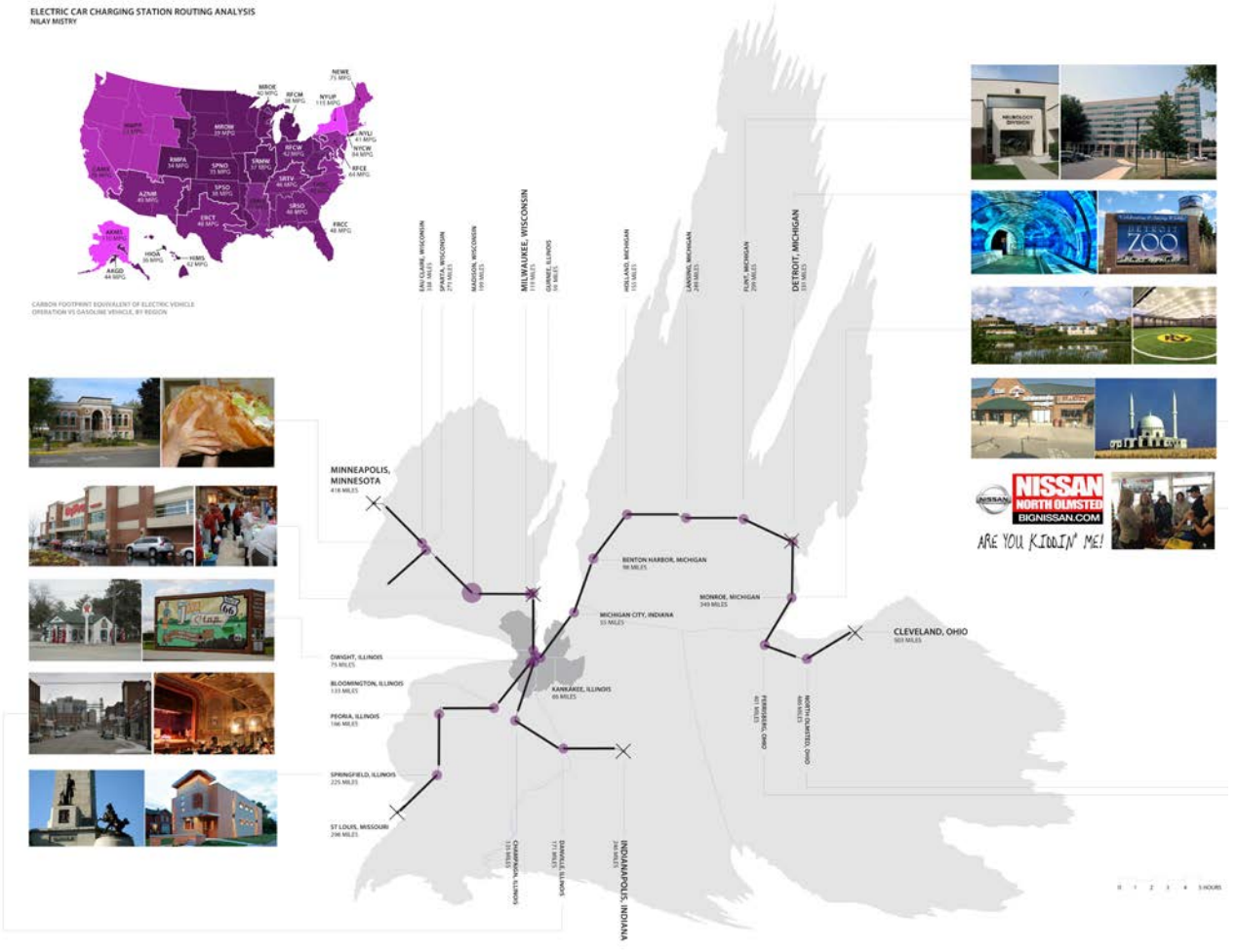


Nilay Mistry

Electric Car Charging Study
Research Summary

The distribution of energy plays a critical role alongside production methods in evaluating the costs and opportunities of an infrastructural construct. In the case of automobile transportation, fossil fuels are burned throughout a given car trip after extensive efforts are made produce, distribute, and store gasoline at points readily accessible to the consuming public. A recent rise in electric car manufacturing is beginning to reorganize the infrastructures to fuel private vehicles and therefore offer opportunities to calibrate the spaces associated with the fueling process. This study explores the change in experience within the physical and cultural landscape of expanded Chicago through altered transitions to the hinterland brought on by electric vehicles.

Current mid-price electric vehicles suffer from a deficiency of drivable range between fueling versus conventional gasoline powered counterparts. An average distance of approximately 70 miles between fueling limits common use of these vehicle between short distances and along well planned routes where charging stations are available. These vehicles are sized to serve residents of densely populated cities where charging stations are presumably plentiful and smaller vehicles easily navigate in traffic.

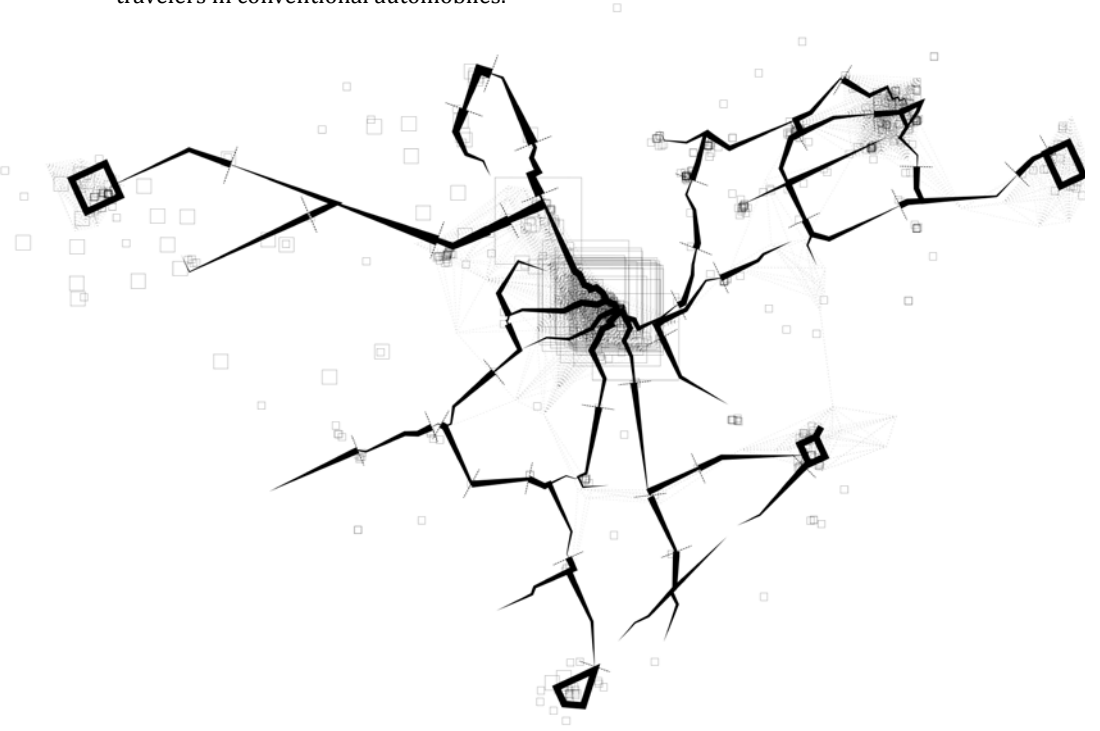


Various private companies have established electric charging stations throughout parking areas of businesses and public thoroughfares where vehicles can stop and recharge for a predetermined rate. The charging stations, a small box usually mounted on a pedestal or wall, vary in charging speed that makes faster stations far more attractive facilities for use. A low cost Level 1 charger, easily retrofit into residential applications, will take nearly 14 hours to charge a vehicle while a Level 2 commercial grade charger can reduce that time to 6 hours. Recently introduced Level 3 chargers can refuel in 30 minutes and are the most costly to service. Commercial charging companies position these often position stations at shopping facilities and recreation areas where the landowner can offset the installation costs with additional profits from the driver's time at the facility. The lack of coordination between competing charging providers and the erratic occupation of charging stations has been met by emerging networks of electric vehicles owners who publish the availability of chargers in real time on mapping websites. The lack of a large program specific fueling facility, like a conventional gas station, allows many electric vehicle owners to recharge at home overnight, during other activities of a daily routine, and rely on a growing network of electric vehicle owners. Where access to electricity is ubiquitous in the area, so is the potential to fuel electric vehicles.

Positioning Chicago in the region, the black and white line drawing explores the routes of connection to neighboring population centers. Assuming interstate highway travel, the route of shortest distance to each city is charted where existing charging stations would serve vehicles that can travel within a 70-mile range. Squares mark the location of charging stations and with the size of each figure reflecting an inverse relationship to charging time. The journey to Cleveland is now only possible by way of the heavily populated corridors of Michigan instead of a direct route through much of Indiana. Minneapolis can be reached through an efficient route where Iowa City is rendered inaccessible. The failures of normal routes and discovery of successful alternatives reveal a reorganization of the reaches of Chicago's connections and flows within the region. In contrast the highway network, volunteered residential charging stations made known by internet postings are connected to reveal a secondary network of charging stations that is growing by the day.

The additional time spent at fueling stations for interstate travel skews the experience of road travel toward the immediate surrounding of an electric charging station. The color mapping distorts the geography of the region Chicago is within to reflect a new condition of travel time. The 38-hour journey to Cleveland, for example, would now enable participation with local amenities such as medical testing centers, the Detroit Zoo, and large prayer facilities. Culture of the hinterland could be a larger part of the highway infrastructures that segregate vehicles from local settlements.

The spaces that charging stations inhabit, and ultimately affect at a pedestrian scale, are documented in the video contribution. A rare Level 3 charger is located at a government operated highway oasis where visitors can make use of franchise eateries and information kiosks for a timeframe similar to travelers in conventional automobiles. A more common Level 2 charger at a suburban shopping mall is given privileged parking access to reward alternate fuel users. At a junction with regional train access, a series of chargers provide an amenity of free parking to charger customers. A Level 1 charger is positioned innocuously on the side of a single family home in a quiet neighborhood but serves as a new hub for electric vehicle users.



WORKSHOP #2
agency & consumerism

Emily Bernstein

Neighborhood_ identity_autogeography_subjective mapping_home

_ Initial ideas

Chicago as segregated; Chicago as a city of neighborhoods; Ethnic neighborhoods—connections to other (global) places; Imagined communities and the formation of a location based identity that is separate from a nationality, racial or ethnic category, but is grounded in an urban place; Chicago neighborhoods as changing, dynamic. Chicago as not the same it used to be.

There are many ways to define a place. There are political boundaries, commercial and real estate boundaries, cultural boundaries, imagined boundaries, maybe places without boundaries. In Chicago there are wards, school districts, neighborhoods, communities, residents, visitors, and other sorts of transients. How does how a person defines a place reflect upon he or she as a person? How does how residents define a place influence or define the character of a neighborhood or community? What about this tautology/circularity/inherently connectedness.

What makes home, what makes people change homes to a similar, but different and not far place.

_ Questions

How do people define where they are, where they live, or where they belong. I am interested in how people perceive and define home as part of a community or neighborhood, how this connects with the authentic, and how that may (or may not) vary across a socio-economically similar group of people. Because of time constraints, I will probably have to rely on information from people who I know, and people who know people who I know. In a sense, this project will be quite introspective, seeing as it's mostly about me (or people like me)-and I plan to participate. I would wish that I could gather information that's more reflective of a broader cross sample of the population, and perhaps that could be a next step. From these initial steps, I hope to be able to recognize some connections so that I could formulate some interesting questions. Ultimately, I hope to connect this information that I gather with more qualitative data to investigate more of the why, how, and so what. I don't think this is an anonymous study because I would like to have a discussion and somehow, be able to tell as story. I'm not looking for the definitive word or any sort of answer.

_ Strategy

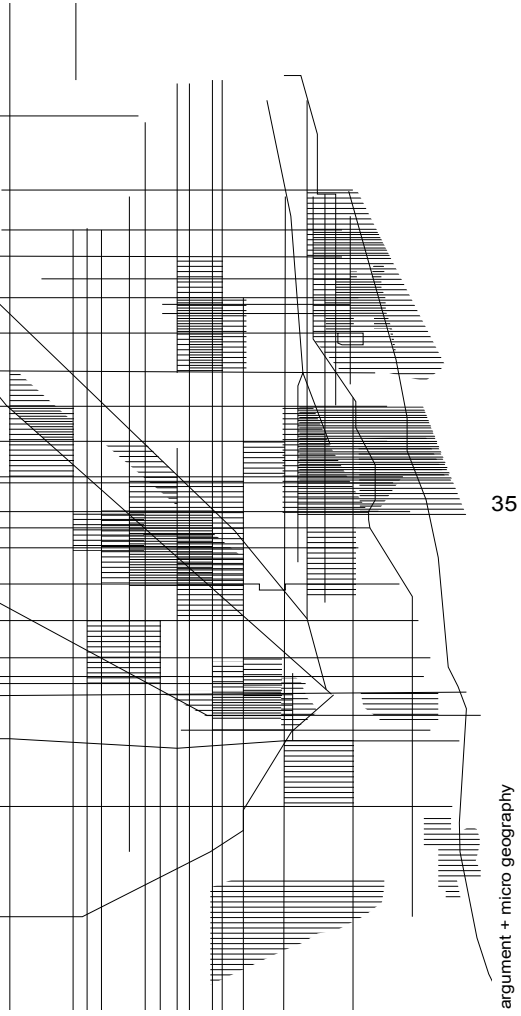
Maybe this could start small, work like a snowball study, and the people who I ask could also pass it on to their friends. I'm going to ask some basic questions that I suspect might influence/be related to how people define and then ask them to draw their neighborhood. How can I link the information to the map that they draw?

_ Findings: some more interesting than others

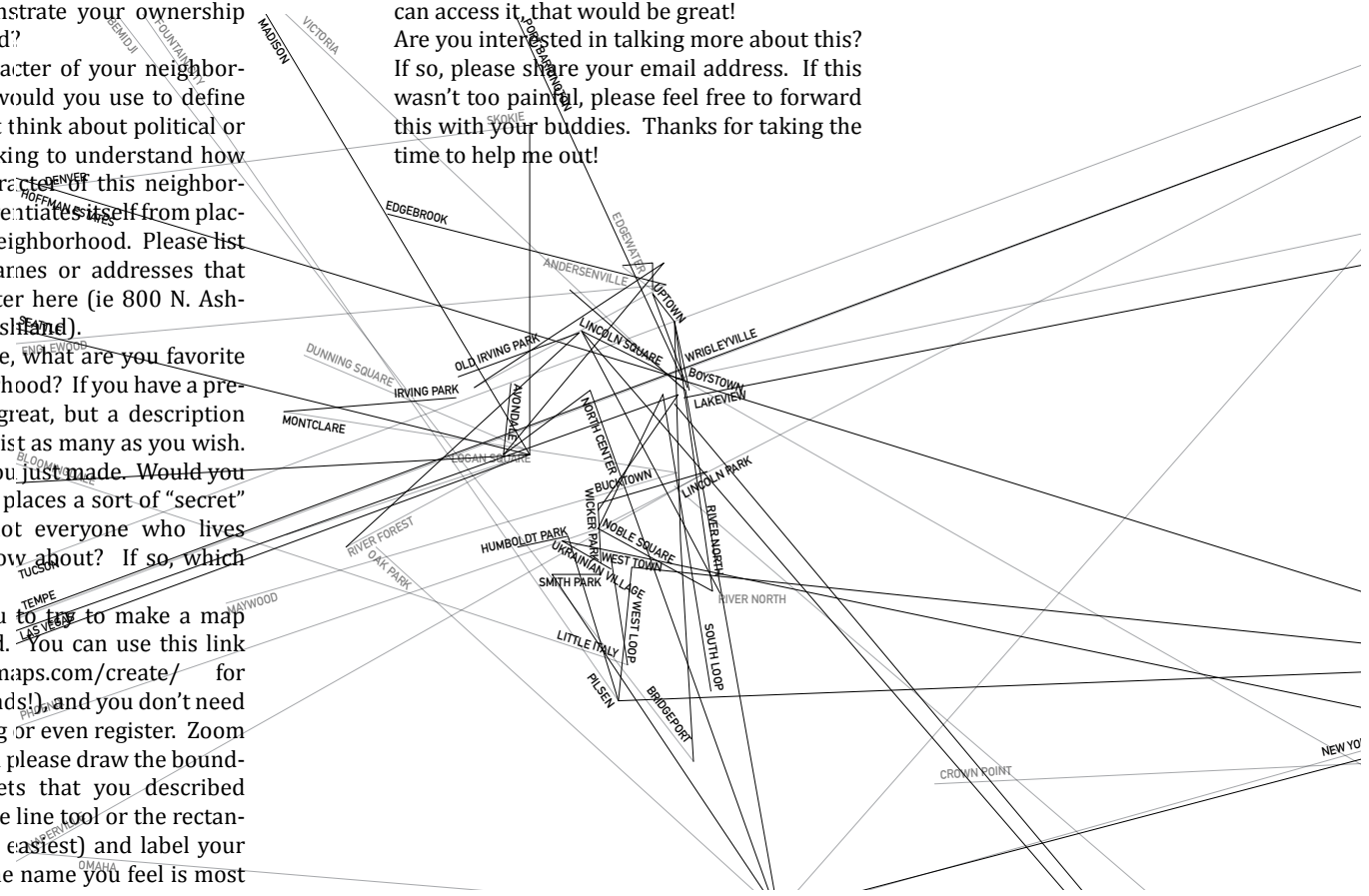
People move to Lakeview their first time in Chicago. Then they move away to other neighborhoods. The longer you've been here the more likely your neighborhood isn't just a box divided by main streets. I have a lot of friends from New York State or who have lived in New York, and a lot of people have been through Arizona, Minnesota, too. Many people have lived in other countries but that usually does not get shown in my data (people have moved several times since being here). People inconsistently define their neighborhood in words versus when they draw it on a map. Sometimes their favorite places in the neighborhood are not within the boundaries of the neighborhood. People don't feel that they have any secrets special neighborhood places but I bet they're holding back. Favorite places usually have to do with food, or some sort of outdoor experience (a park, the lake), but sometimes it's a "corridor" or "six corners" which really gives the area an identity.

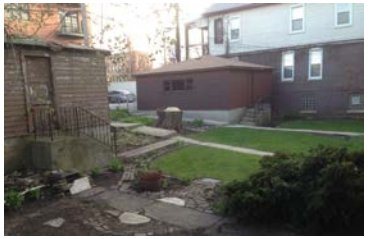
_ I would want to know

How others would photograph their boundary and how they would re-draw the line. What the criteria would be for your neighborhood versus not your neighborhood. What people think of other neighborhoods. Where you lived in between. Why. I would really need to talk to people in person, in depth. A walking-focus group with some ethnograph-

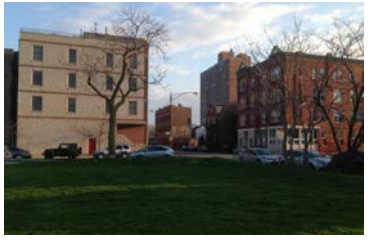
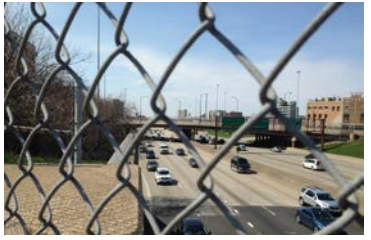


ic observation would be really helpful, too.
_ The questions
Name (first name only is ok!)
Age
Current address
Where did you grow up? If you moved around, where do you identify as having the most influence on your upbringing?
Length of time in Chicago (years)
Length of time at current address (months)
What neighborhood do you live in?
Where did you live prior to this address?
How much time did you spend at your prior address (months)?
Why did you move to your current address?
How about three addresses ago, where did you live then?
How much time did you spend at this address (months)?
Why did you move from this address?
Thinking about your current neighborhood:
Does this neighborhood have any other names you might use to describe it? If so, what are they?
How connected do you feel with your neighborhood? Feel free to interpret connection as you wish: Would you say you are not so connected, fairly connected, or very connected?
Please elaborate on what you feel being "connected" means and why you feel this degree of connection.
How much ownership do you feel over your neighborhood? Feel free to interpret ownership as you wish: Would you say you don't feel much ownership, you feel some ownership, or you feel quite a bit of ownership?
Please elaborate on your feeling of ownership with regards to your neighborhood. Why do you feel this degree of ownership? How do you think you demonstrate your ownership over the neighborhood?
Think about the character of your neighborhood. What streets would you use to define its boundaries? Don't think about political or official maps, I'm looking to understand how you perceive the character of this neighborhood and how it differentiates itself from places that are not your neighborhood. Please list street intersection names or addresses that make up this perimeter here (ie 800 N. Ashland or Chicago and Ashland).
Aside from your home, what are you favorite places in the neighborhood? If you have a precise address, that is great, but a description will be fine, as well. List as many as you wish.
Think about the list you just made. Would you consider any of these places a sort of "secret" or something that not everyone who lives in Chicago would know about? If so, which one(s)?
Now I would like you to use to make a map of your neighborhood. You can use this link http://www.scribblemaps.com/create/ for free (sorry about the ads!) and you don't need to sign up for anything or even register. Zoom into your zip code and please draw the boundaries along the streets that you described above (you can use the line tool or the rectangle tool, whichever is easiest) and label your neighborhood with the name you feel is most important. Now add a place marker with the name of your favorite or secret places. If you could save your map with your first name and insert the link that they give you here so that I can access it, that would be great!
Are you interested in talking more about this? If so, please share your email address. If this wasn't too painful, please feel free to forward this with your buddies. Thanks for taking the time to help me out!










I like the wise guys






Lindsey Fiola

The Image of the City

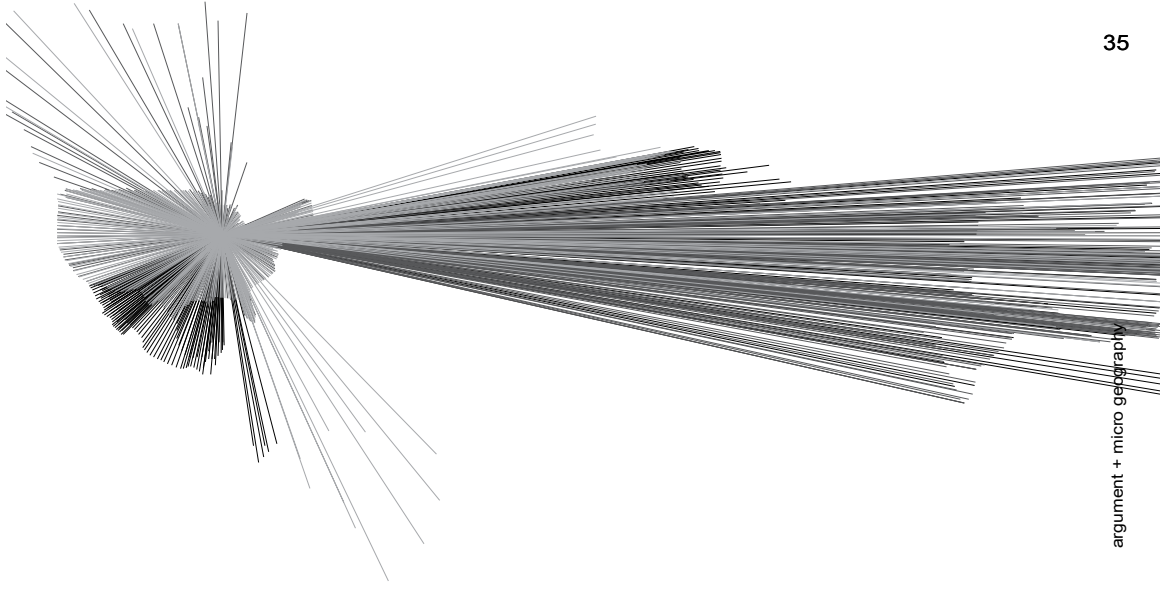
"Chicago is a global city." This is a big statement, an expansive statement. Cities are shaped by their environment, their geography, and by human constructions, economy, commerce, and politics. A city's culture is shaped by the people who dwell in it, study in it and visit it. People are a city's best resource and the best way to enhance or destroy it. Chicago's people (residents, students and visitors) come from every region, but mostly from within the United States and more specifically from the Midwest region. The Chicago Expander seeks, in part, to define and reveal Chicago's hinterland, itself considered the hinterland of the United States. A hinterland of a Global City demands a new definition. Historically large cities have relied on their hinterland for goods, agriculture and resources. This project defines Chicago's necessary resources to maintain and advance its claim to the title of Global City as its people. Chicago needs to attract more people. The city has had a contracting population since 2012 and a shrinking city is not a Global City.

Initially I wanted to reveal the divide between the official, sanctioned, Illinois and Chicago bureaus of tourism and a visitor's, dweller's and student's actual experience of the city. This topic addressed one of the most obvious ways for Chicago to attract more people and to achieve the status of a "Global City."

As I studied these narratives, I realized that one isn't the true image of the city and the other a false facade. Both of these Chicagos are true Chicagos. Chicago is in the middle. It is ambiguous. It is two-faced. Chicago doesn't reveal its secrets easily. This is the image of the city and what makes Chicago special. One of the reasons that international tourists in the United States, cite for why they didn't visit Chicago, is that it never occurred to them. Chicago doesn't stand out for many visitors. They might only know half of the story.

If one draws only from the media, Chicago is a veritable Dr. Jekyll & Mr. Hyde. Image searches for the city paint it as a glittering metropolis on the lake – almost all of the images contain water. News searches are dominated by violence, controversy and losing sports teams. Chicago writer, Joseph Drogos referred to Chicago as a Janus city. He was speaking of its historical status as a gateway from the east coast to the west coast, afforded by its waterways, later its railroads, and today by its two busy airports. But Chicago is a Janus city not only because it is a gateway, but because it is nostalgic & innovative, prairie wild & asphalt gridded. It is secretive & bombastic, it is a big American City pushed along by neighborhoods, named for, and often still defined by their immigrant populations.

Mayor Emmanuel has challenged Chicago's Tourism arm, Choose Chicago, to increase the city's annual visitors from 40 million to over 50 million. This effort is focused both regionally and internationally. Achieving the goal will bring $14-15B in associated visitor spending and approximately 35,000 jobs. Chicago is home to 588,000 foreign born residents, representing about 22% of the city's 2.7 million residents. The cover of Chicago's official tourism guide boasts about Chicago's neighborhoods, featuring among them, Lincoln Square, an historically German neighborhood and Wickerpark which has been an immigrant neighborhood since the city was founded; first for the Irish, then Norweigan and German immigrants and later Ukranian. The guide also steers visitors to shopping on Michigan Avenue, Navy pier and other enclaves where few locals ever venture on a weekend. The dichotomy between the scale, sound and smells of Chicago's neighborhoods and the phantasmagorical experience of Navy Pier is Chicago. The image of the city lies in the in-between. It takes patience to find it and many visitors, even regional visitors who come to the city many times never do. Chicago makes us work to know it and resists definition… It is a living thing, this city, oscillating, belying and surprising us.







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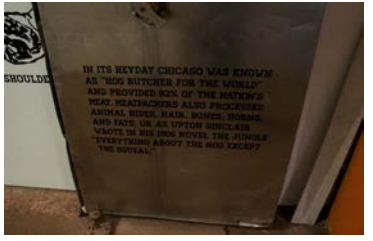

IN ITS HEYDAY CHICAGO WAS KNOWN
AS "HOG BUTCHER FOR THE WORLD"
AND PROVIDED 82% OF THE NATION'S
MEAT. MEATPACKERS ALSO PROCESSED
ANIMAL HIDES, HAIR, BONES, HORNS
AND FATS. UR AS UPTON SINCLAIR
WROTE IN HIS 1906 NOVEL THE JUNGLE
"EVERYTHING ABOUT THE HOG EXCEPT
THE SQUEAL."




NO
BALL
PLAYING
ALLOWED

WORKSHOP #3
transportation

Eugenia Macchia
Transportation - Chicago Railroads

The city of Chicago is the hub of transportation for both people and goods in the United States. The development of such an extended net of transportation played a vital role for the growth and prosperity of the city.
In 1850 Chicago was already the point of junction between the flat lands of the south and the Eastern markets, to become later the focal point of the American trucking industry. Today, the 40% of the American freight arrives to Chicago: a little part of it stays while the majority of it is stored, checked and later sent to new destinations.

In 2010 Chicago hosted 12,850,000 TEUs containers and the 30% of them reached Chicago through the railways (the remaining 67 % used trucks and 3% used other ways).

The objective of the research is understanding how this process started and what's the impact of the railroad on the city it-self. How did the railroad develop during the years? What did it connect? And what are the consequences of such a big structure in the city?

The photo essay is used as an instrument of exploration to verify the type of landscape generated by the system of transportation. Since the appearance of the city depends on both natural resources and built environments,the camera tries to catch the highways, railways, bridges and others ways, with a particular attention on the railroad which has a really strong impact in a city such as Chicago, which hosts the famous 'L' system in the heart of the historical center determining its image all over the world.

The story of this city changes in terms of population, economy, industry and even architecture thanks to this big system. That's why the first part of the research focuses on the general territory of Chicagoland to understand the macro connections between Chicago and other main American cities. The drawing produced transforms the territory in an abstract image: as it happens for different pieces of fabric, the railways look like seams able to join pieces of lands where the tracks of the railroads are reduced or enlarged depending on the amount of freight transported during the day with the aim to highlight the principal arterial roads of transportation. Besides, the drawing also shows particular spots corresponding to the principal intermodal rail terminals, where hundreds of warehousing are placed.

On the other hand, the second part of the research focuses on a particular area of the region where the railroad was essential for the birth and development of the surrounding neighborhoods and where one of the biggest Freight Cluster is located. The different layers present the changes happening in the southwest of Chicago to verify the impact of the big intermodal yard of Bedford Park on the rest of the city.

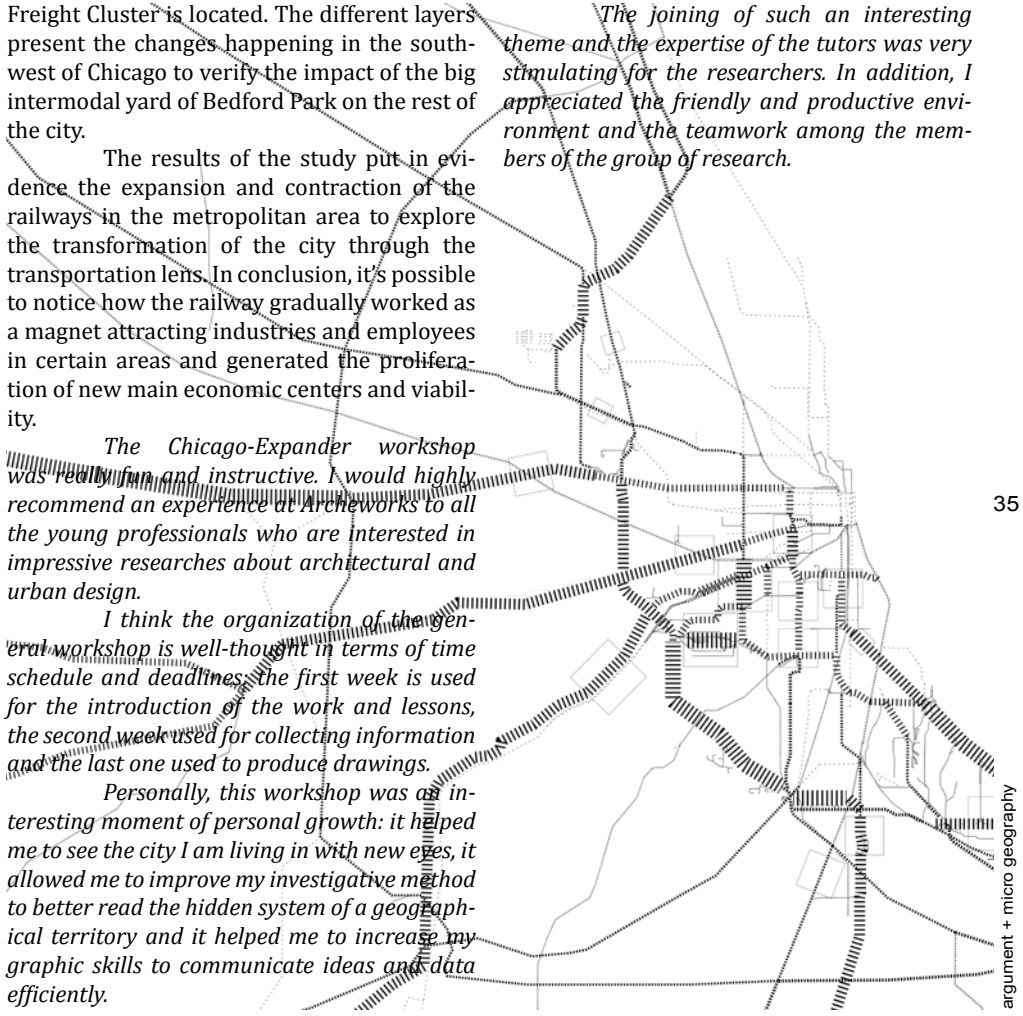
The results of the study put in evidence the expansion and contraction of the railways in the metropolitan area to explore the transformation of the city through the transportation lens. In conclusion, it's possible to notice how the railway gradually worked as a magnet attracting industries and employees in certain areas and generated the proliferation of new main economic centers and viability.

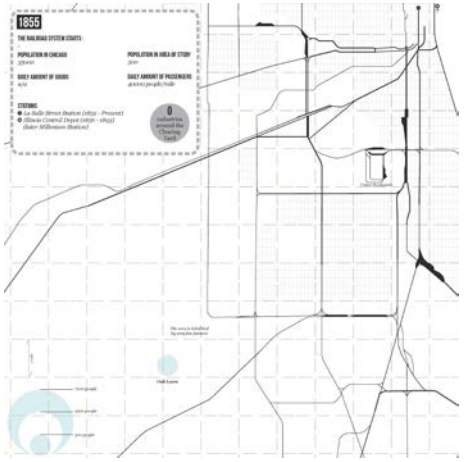
The Chicago-Expander workshop was really fun and instructive. I would highly recommend an experience at Archeworks to all the young professionals who are interested in impressive researches about architectural and urban design.

I think the organization of the general workshop is well-thought in terms of time schedule and deadlines; the first week is used for the introduction of the work and lessons, the second week used for collecting information and the last one used to produce drawings.

Personally, this workshop was an interesting moment of personal growth: it helped me to see the city I am living in with new eyes, it allowed me to improve my investigative method to better read the hidden system of a geographical territory and it helped me to increase my graphic skills to communicate ideas and data efficiently.

The joining of such an interesting theme and the expertise of the tutors was very stimulating for the researchers. In addition, I appreciated the friendly and productive environment and the teamwork among the members of the group of research.

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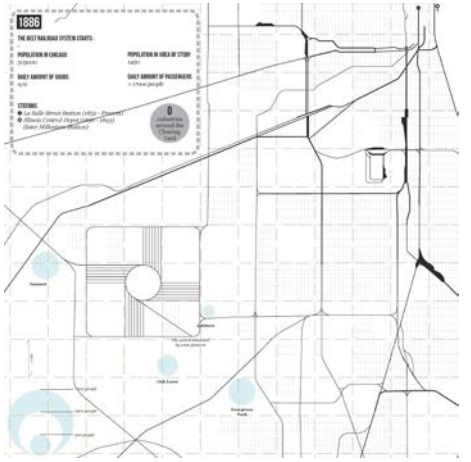
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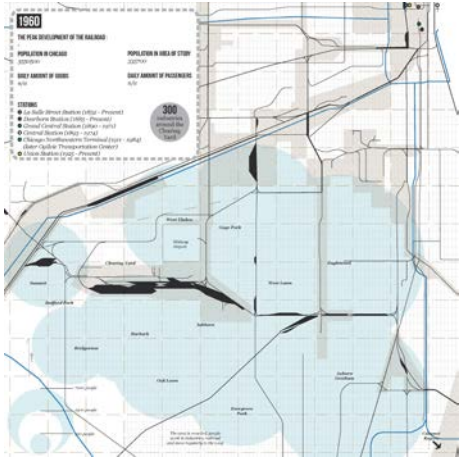
1960
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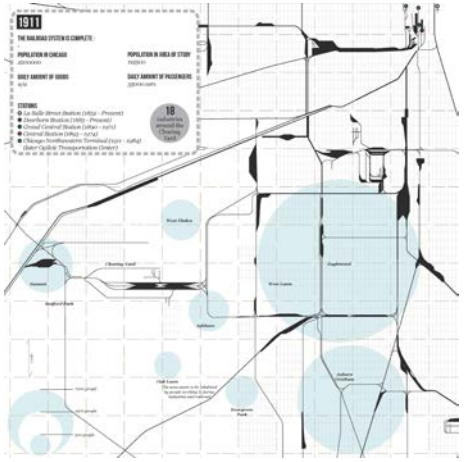
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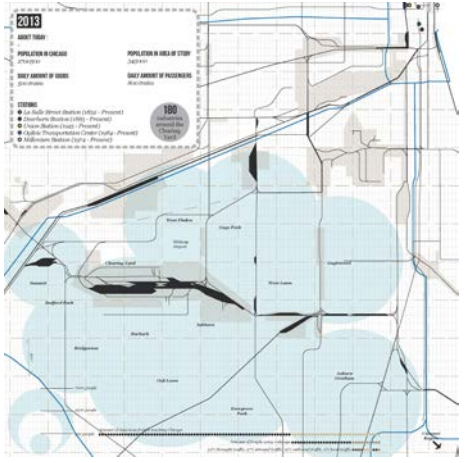
2013
180

Jackie Xxxxx

Cattle Industry and the Evolution of Chicago Transportation

Chicago is historically a trading post. Various evolving modes of transportation, created in large part for the movements of goods, shaped the city into what it is today. The transportation of livestock is one of the most famous commodities which passed through Chicago, one which dominated the meat packing industry and railway construction for North America through the 19th and 20th centuries. From its very beginnings as a fur trading post in the 1770s, the sale of meat was part of then Chigagou. As the game died off and the ownership of the land moved to the British and then the United States, meat became a dominating trade. The first slaughter house was located behind Fort Dearborn in 1827 supplying to local traders and those moving west. A well-known location for slaughter was a group of trees located behind the current Art Institute.

As Chicago evolved as a city, the stock yards multiplied and grew. Tavern yards were created at major road intersections. Originally created as a resting point for those traveling, they soon became points of sale and auction for livestock coming into the city. As the meat market demanded better transportation routes these roads were turned into wood plank toll roads. This trail is now known as either a rail route or the street named Old Plank road in the west suburbs today.

Animals were typically brought in from farms on the outskirts of the city and as the demand rose and transportation evolved to rail they were brought in from further and further west. The nine rails which ran through Chicago soon had stock yards associated with them. Chicago became the port through witch most of the meat of the US traveled, and the demand directly changed the shape and use of transportation between the city and the nation. Its central location, the demand for meat for soldiers and the cut off of the Mississippi river during the Civil War, made it the new trading point for livestock from the plains to the east. After the war the Union Stock Yards were funded by the rail roads as a common point of sale, creating an efficient meat processing center for the nation. This transformation caused an even larger influx of immigration to the city and a basis for the creation of the diverse industry we see today.

The yards are currently shut, having been turned into a tech park. Today's version of modern factory beef transportation travels in packages refrigerated in trucks. The rail lines constructed by the cattle industry can still be seen through the city and some are still much in use. The neighborhoods that once housed the workers for these yards exist now with many of the similar and forgotten characteristics that had once created them. The Cattle industry is a major commodity of the United States, an economy which has been both controlled by innovations in transportation and been the driving force for its geometry. Cattle are now slaughtered close to the fields in which they feed and are then transported by truck for sale, leaving Chicago to be a purchaser rather than a producer.

Looking at the history of the slaughter houses, and the current character of their past locations the relationship between the cattle market and transportation evolution of Chicago can be seen.

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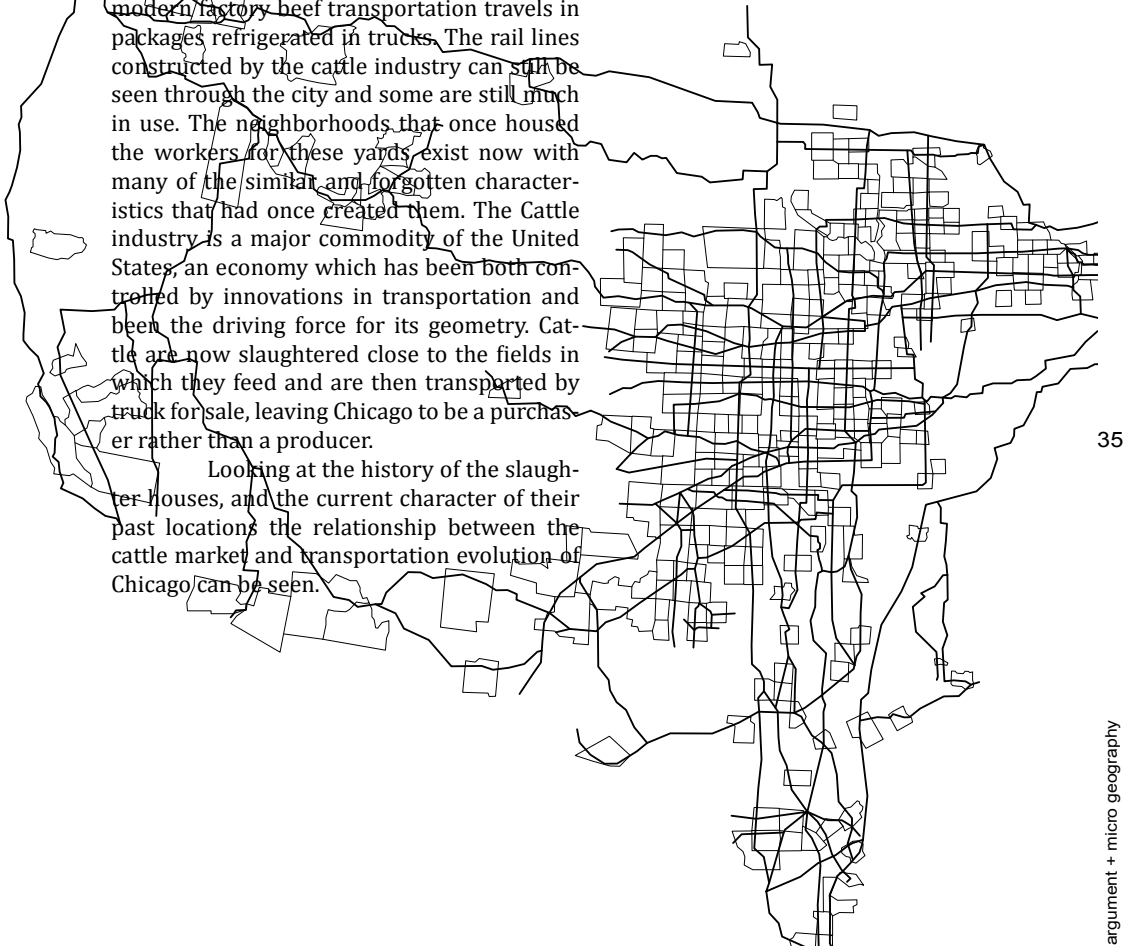
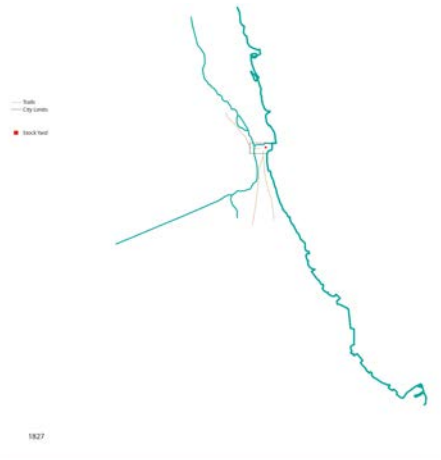
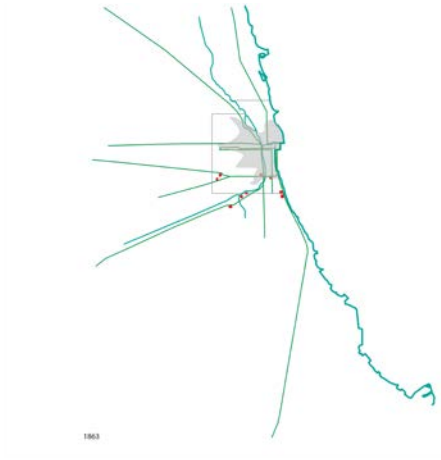



Hull House
1900


Highway
1970


CHICAGO TRANSPORTATION AND
THE STOCK YARDS
2013


Trails
City Limits
Stock Yard
1827


1863

Jayne
xxxxxxxxxxx

highways, railways, bridges and others ways, with a particular attention on the railroad which has a really strong impact in a city such as Chicago, which hosts the famous 'L' system in the heart of the historical center determining its image all over the world.

The story of this city changes in terms of population, economy, industry and even architecture thanks to this big system. That's why the first part of the research focuses on the general territory of Chicagoland to understand the macro connections between Chicago and other main American cities. The drawing produced transforms the territory in an abstract image: as it happens for different pieces of fabric, the railways look like seams able to join pieces of lands where the tracks of the railroads are reduced or enlarged depending on the amount of freight transported during the day with the aim to highlight the principal arterial roads of transportation. Besides, the drawing also shows particular spots corresponding to the principal intermodal rail terminals, where hundreds of warehousing are placed.

On the other hand, the second part of the research focuses on a particular area of the region where the railroad was essential for the birth and development of the surrounding neighborhoods and where one of the biggest

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Freight Cluster is located. The different layers present the changes happening in the southwest of Chicago to verify the impact of the big intermodal yard of Bedford Park on the rest of the city.

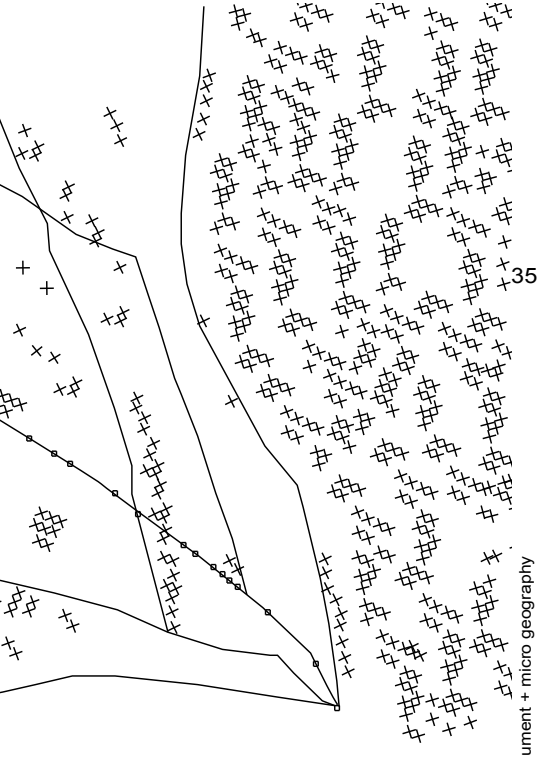
The results of the study put in evidence the expansion and contraction of the railways in the metropolitan area to explore the transformation of the city through the transportation lens. In conclusion, it's possible to notice how the railway gradually worked as a magnet attracting industries and employees in certain areas and generated the proliferation of new main economic centers and viability.

The Chicago-Expanded workshop was really fun and instructive. I would highly recommend an experience at Archeworks to all the young professionals who are interested in impressive researches about architectural and urban design.

I think the organization of the general workshop is well-thought in terms of time schedule and deadlines: the first week is used for the introduction of the work and lessons, the second week used for collecting information and the last one used to produce drawings.

Personally, this workshop was an interesting moment of personal growth: it helped me to see the city I am living in with new eyes, it allowed me to improve my investigative method to better read the hidden system of a geographical territory and it helped me to increase my graphic skills to communicate ideas and data efficiently.

The joining of such an interesting theme and the expertise of the tutors was very stimulating for the researchers. In addition, I appreciated the friendly and productive environment and the teamwork among the members of the group of research.



Arnold Kasemsarn
The Kankakee Area

Kankakee County is located about 60 miles south of Chicago and directly south of Will County, the southernmost county covered by the Chicago Metropolitan Agency for Planning. Of an estimated 46,800 public and private sector employees in the county in the Second Quarter of 2010, about 16,360 were employed in the Chicago area counties of Cook, Will, DuPage, Kane, and Lake (U.S. Census, "LEHD: Origin- Destination Statistics."). I-57 runs through the county and connects the county's urbanized areas north to Chicago and south to Champaign, Memphis, and New Orleans. A Canadian National Railroad line runs alongside I-57 and hosts several daily Amtrak trains between the cities of Kankakee, Chicago, Champaign, and New Orleans. The City of Kankakee is the county seat and is largely bypassed by the Interstate highway.

Outside of the urbanized areas along I-57, the Kankakee County 2030 Comprehensive Plan describes the county as substantially agricultural, "87% [of the county's land area] is used for agricultural production ... 5.6% [is incorporated in county municipalities]." (HNTB and Others, 3-2). Although the plan identifies a "history ... of economic independence from the greater Chicago Metropolitan Area" (HNTB and Others, 1-2), the transportation connections to the Chicago area influenced the designation of the county seat in the 1850s as well as more recent growth pressures south from Will County, the designation of the Peotone Airport site just north of the county, and industrial development along I-57 (HNTB and Others, 1-5 and 3-69). The different pressures converging on the county suggest strengthening ties with the Chicago area and an increasing need for improved transportation connections into the Chicago Metropolitan Area (HNTB and Others, 4-7). The projects in this series of the Chicago Expander Workshop focus on the City of Kankakee and its relationship with its immediate surroundings as well as its connections with Chicago and the Great Lakes Region.

Downtown Kankakee continues to center its employment, and its municipal and county services along the north-south rail line through the city and near the historic rail depot. In Figure 2 and elsewhere in this series, a Star symbol designates the location of this rail depot. The Kankakee River flows several blocks to the south and west of the downtown core. As in other parts of the county, the development patterns suggest an orientation along the rail transportation corridor rather than along the river. Although the river appears navigable and connects the county to the Illinois River system and Indiana, the lots along the river banks are currently occupied by private residences, agricultural land, and recreational facilities. Aside from a single large quarry site south side of Downtown, the river banks do not have characteristic remnants of port or industrial facilities. The existing patterns suggest a city that developed after railroads supplanted river shipping and reduced the need for waterfront industrial locations and shipping facilities.

The Expander portion of the project focused on spatial conditions in Downtown Kankakee. The first layer is the Satellite Image in Figure 2 followed by a Topographic view of the area's elevation contours, waterways, and significant structures. Details from the top four layers are shown in Figure 3a-d. The project layers are arranged in decreasing order of expected influence. The layers show the street and block patterns of contemporary Kankakee, the buildings and setbacks constructed on these blocks, the job sites (red dots) and worker residences (blue dots) located within these buildings, and the transit system that serves the people and businesses of Downtown Kankakee. The broad street crossing east to west across the city is Court Street. The open un-built lots shown in Figures 3a and b are along the current CN Railroad line. Although the rail line disrupted building patterns in Downtown Kankakee, it also appeared to concentrate employment in the structures that did locate along the line (Figure 3c). The current route structure of the River Valley Metro bus system, however, suggest a system that is not focused on the historic depot.

The multiple routes of the River Valley Metro bus system currently converge at the corner of Chestnut and Schuyler (see Figure 4a). This transfer point connects transit customers from all directions to Downtown Kankakee. The meeting point of these lines, however, is alongside a decommissioned grocery store and several vacant lots. These patterns suggests a this transit service that has not attracted or retained development benefits. The Photo Essay continues to explore the relations between the City of Kankakee, the railroad line, building patterns, and the river (see Figure 4b). It begins at the historic depot and seeks to relate existing structures to the rail line and the river. It continues to explore the patterns of intended and unintended uses and the remnants of previous patterns. The final images explore the conditions preserved at the Kankakee River State Park to the northwest and how those conditions may have influenced the city.

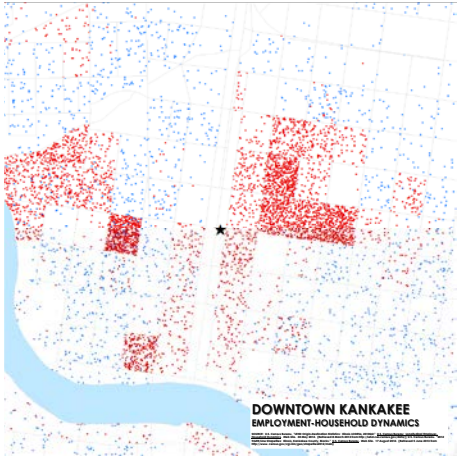
The last portion of the project, the Micro-Geographies study, places Downtown Kankakee as one node in a series of connections across the Great Lakes Region. This study places Kankakee among the numerous Interstate highways and Amtrak routes crossing the region as well as one of many Origins and Destinations connected by flights from the Chicago O'Hare and Midway airports. It seeks to explore how those current connections could affect the city's current and future patterns.

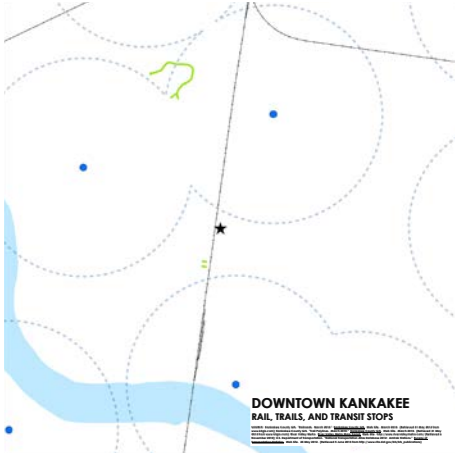

DOWNTOWN KANKAKEE
SATELLITE IMAGERY


Lafayette Sch
Park
Soldier
GULF
AVE
LOCUST
Lincoln Sch
Hospital
St Joseph Seminary
PO
Courthouse
St Paul's Sch
HICKORY
St Patricks Sch
CENTRAL
EAST
INDIANA
RIVER
Jobbers Park
DOWNTOWN KANKAKEE
TOPOGRAPHY


DOWNTOWN KANKAKEE
STREET EDGES


DOWNTOWN KANKAKEE
BUILDING FOOTPRINTS


DOWNTOWN KANKAKEE
EMPLOYMENT-HOUSEHOLD DYNAMICS


DOWNTOWN KANKAKEE
RAIL, TRAILS, AND TRANSIT STOPS

WORKSHOP #4
water

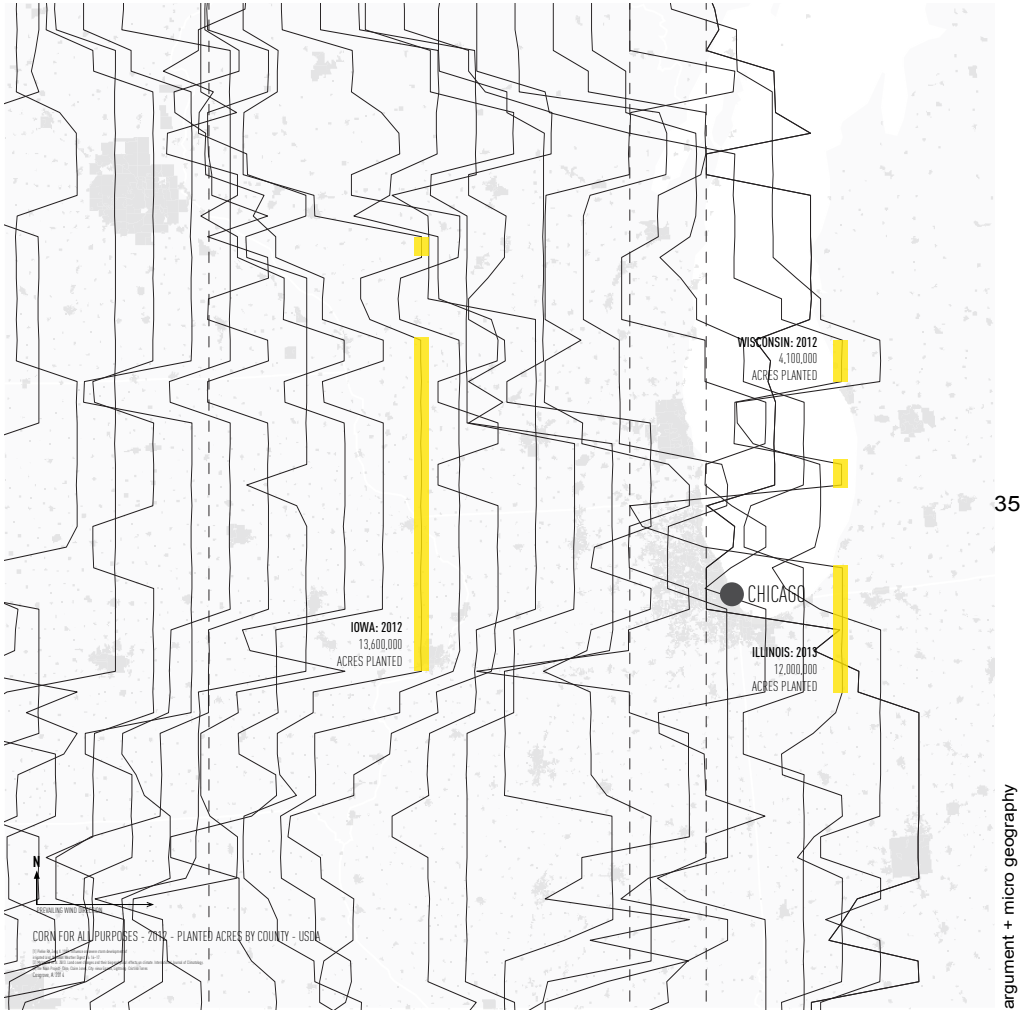
Ann Cosgrove
[Meso]Climate Chicago

Of all of the water available on Earth, only two and a half percent is fresh water. Of that percentage, sixty percent is trapped in glaciers and ice caps, with the remaining available in groundwater and surface waters [3]. Seventy percent of freshwater in the world is used for agriculture [3]. Chicago finds itself at the center of the United States heartland, the core of the country's agricultural system. More than fifty percent of US corn and more than eighty percent of US soybean is grown in the upper Midwest[3]. Most of the water used to grow these crops is drawn from the Mississippi Basin.

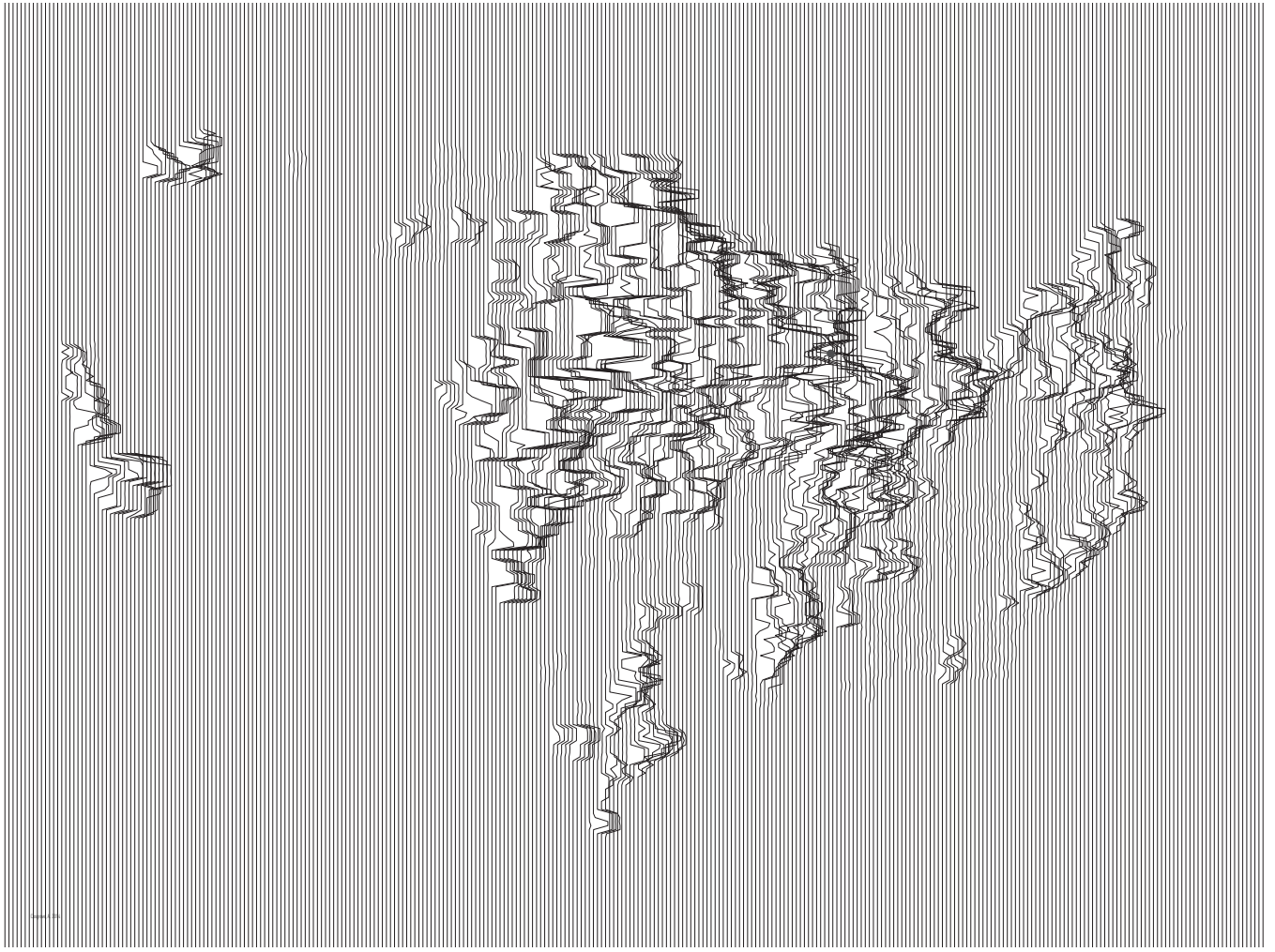
This agricultural system is tied into the hydrologic and climatological cycles of the mesoclimate that encompasses Chicago. Evapotranspiration of rainfed and irrigated agriculture may alter the moisture budget of the Midwest, destabilizing the convective atmosphere [2] and promoting greater incidence of extreme weather events [1]. Temperature of air over watered land decreases, while amount of water vapor increases, causing vertical circulations of air from wet and cold to warmer and dryer air. What is the mesoclimate of Chicago and how is it impacted by irrigation of agriculture and this addition of water to the hydrologic cycle? Is there a connection between density of agriculture and occurrence of extreme weather events?

The geography of Chicago is expanded to include this greater climate and is examined at multiple scales in the exploration. The hypothesis suggests a relationship between agriculture and climate that is fed by the massive addition of water to the hydrologic cycle and humidity budget. Corn planting per county and extreme weather events across the United States are overlaid to begin to examine the relationship between these two variables. Extreme weather events are defined as incidents of severe weather reporting of wind, hail or tornadoes.

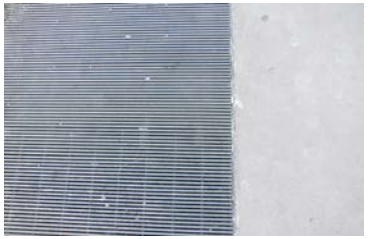
The hypothesis is explored in a line drawing at multiple scales. First, the amount of planting of corn across United States counties is graphed horizontally to suggest the relationship between agricultural densities and the eastern motion of prevailing winds and weather systems. Second, the drawing is refocused to reveal patterns of agricultural densities across states in the Chicago and Lake Michigan area. The accompanying photography brings the study to the human and urban scale, capturing traces of water in multiple states and the surfaces and systems designed for its accommodation.



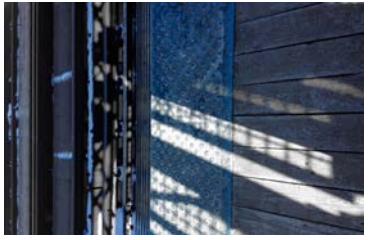
Variation in homogeneity and heterogeneity of land use at the mesoclimate scale is suggested as a driver of atmospheric climactic movements that may encourage incidence of extreme weather events. The relationship between land use type and water input is expanded to include these movements. The exploration reveals the potential for correlation of these variables. These interactions are part of an atmospheric reservoir that needs to be quantified to further the understanding of the hydrologic cycle and the future of climate in the Chicago region.

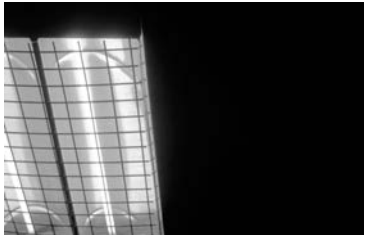
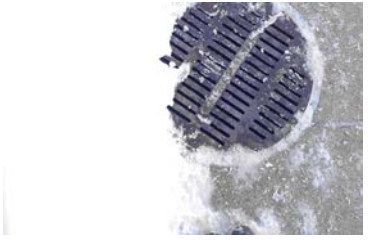
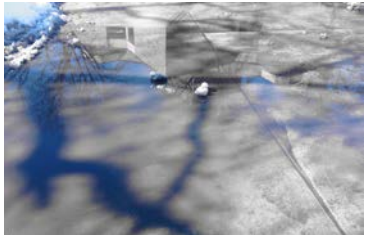













Anna Vadacca

The goal of this research is to draw attention on the important role that rivers can play in contrasting land use fragmentation, increase social activities, improve the design of public spaces, and enhancing the overall quality of life of our cities.

In the last few years, many cities worldwide enacted cleaning water policies and design projects to improve the quality of the city. Copenhagen recently converted the polluted water of its harbor in a public outdoor swimming facility. Philadelphia is currently promoting the "Green City, Clean Waters" plan to enhance watershed and manage storm water.

In the case of the City of Chicago the situation started to change in 1972 with the Cleaning Water Act, a national law that defined pollution control strategies, and the Metropolitan Water Reclamation District of Greater Chicago that began to build a series of sewage treatment plant. Today the river water quality has definitively improved, but there are still problems related to pollution in the Chicago Area Waterway System, such as combined sewers overflows events and lack of disinfection of wastewater. At the same time, the Chicago River has a great potential in terms of public recreational uses.

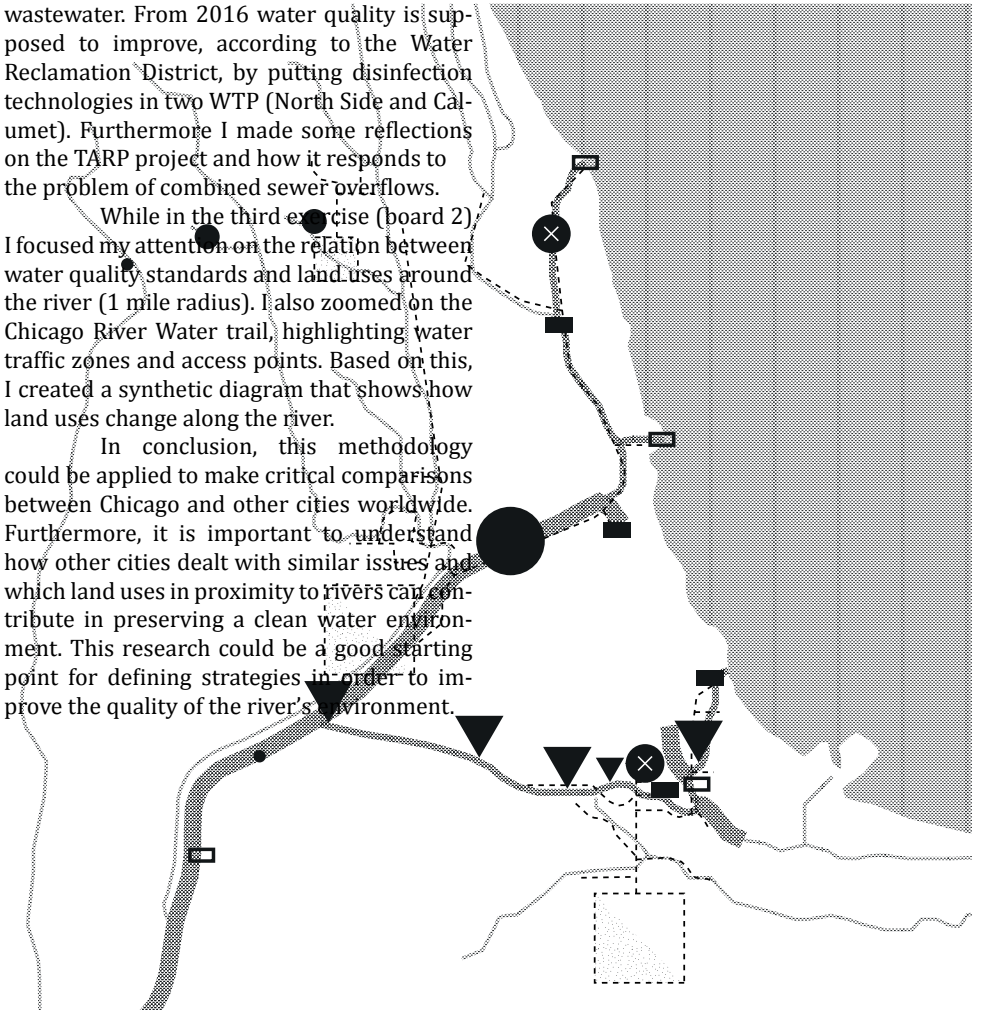
The aim of my research was to investigate the relation between the level of pollution in the Chicago Area Waterway System and the land uses around such waterways. Also accessibility and activities around and on the water are important layers taken into account. For what concerns the level of pollution in the river, the challenge was to find out data that could be transferred on a map. For this reason, I referred to the EPA's Effective Water Quality Standards for Chicago Area and Lower Des Plaines River of 2012, that identifies areas for "recreational uses in and on the water" and areas "for recreational uses with limited water contact".

A Photo Essay looks at the work in progress for the riverwalk in the Loop, the two existing levels of the city in relation to transportation infrastructures, the different uses and accessibility to water.

In the second exercise (board 1) I explored the relation between current water quality standards and the cleaning water infrastructure. My question was: how did the city respond and is still responding to the problem of pollution? I found that, despite having the biggest water treatment plant in the world (Stickney WTP), most of the seven WTP in the city are currently skipping the disinfection-step in treating water. So 70% of the water in the river system is semi-treated wastewater. From 2016 water quality is supposed to improve, according to the Water Reclamation District, by putting disinfection technologies in two WTP (North Side and Calumet). Furthermore I made some reflections on the TARP project and how it responds to the problem of combined sewer overflows.

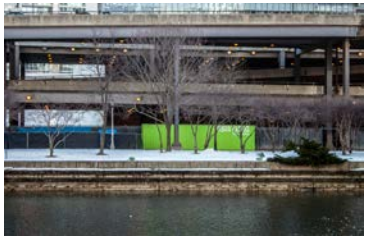
While in the third exercise (board 2), I focused my attention on the relation between water quality standards and land uses around the river (1 mile radius). I also zoomed on the Chicago River Water trail, highlighting water traffic zones and access points. Based on this, I created a synthetic diagram that shows how land uses change along the river.

In conclusion, this methodology could be applied to make critical comparisons between Chicago and other cities worldwide. Furthermore, it is important to understand how other cities dealt with similar issues and which land uses in proximity to rivers can contribute in preserving a clean water environment. This research could be a good starting point for defining strategies in order to improve the quality of the river's environment.




BUILDING A NEW
CHICAGO





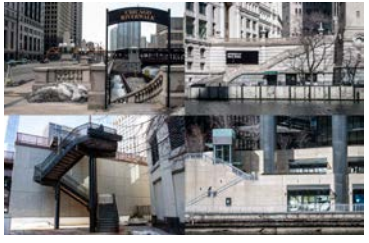



CHICAGO YACHT YARD





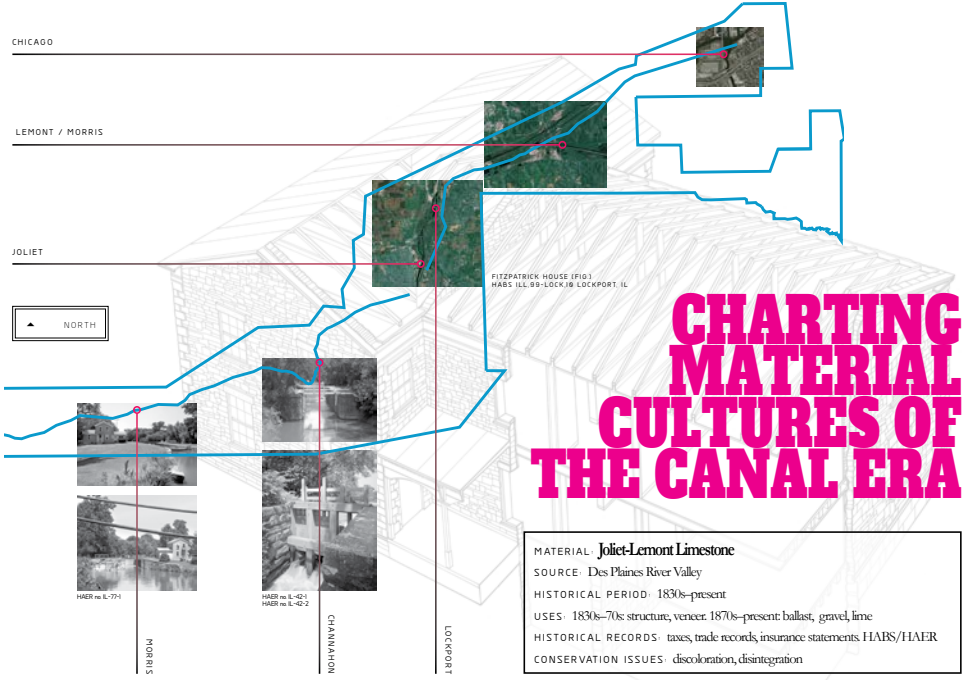





Ben Scott

Roughly encompassing the nineteenth century, the Canal Era in the United States uniquely shaped the country's economic history. By the 1830s, the United States had a waterway connection between New York City and New Orleans; by 1840, it is estimated that over 3000 miles of canals had been constructed. Many canal corridors remain, like sections of the Champlain and Erie Canals in New York, the Sanitary and Ship Canal in Chicago and the Illinois and Michigan (I&M) Canal in Will, Grundy, and LaSalle Counties in Illinois. In many places, however, disused canals might be understood as sites of natural beauty, even though their existence is entirely engineered; nineteenth-century canals have been naturalized, both by their declining industrial use and their often problematic integration with local ecosystems. In Illinois, the I&M Canal is interpreted as having been displaced by the railroad, although the two coexisted throughout the second half of the nineteenth century, with the former experiencing declining profits until its closure to commercial and industrial transportation in the 1930s. The I&M Canal endowed northern Illinois with the economic and infrastructural support for an extensive railroad system, effectively laying the groundwork for its own obsolescence. I approached the Chicago Expander with the assumption that the Canal Era exists, and that it envelops diverse modes of transportation, material production, individual consumption, and land development, directly and tangentially related to canals.

My thesis is that there exists a material culture unique to the Illinois and Michigan Canal Corridor, which extends one hundred miles west from Chicago to Peru, Illinois, where the canal joins the Illinois River. Material culture theory suggests that patterns of individual demand and consumption present a lens for examining other histories. Shifting availabilities of materials can explain stylistic movements in architecture and consumer goods. In addressing the Illinois and Michigan Canal, I chose to chart the relationship of a single material, Joliet-Lemont Limestone, to the canal and its attendant economies. Joliet-Lemont Limestone shares an intimate connection to the I&M Canal. Large-scale commercial limestone quarrying began in the Des Plaines River Valley during the construction of the canal; digging the canal prompted the discovery of extensive limestone resources, with limestone providing structure for much of the canal itself, as well as supporting or related structures. The canal in turn enabled the development of a large-scale industrial economy around the material. Joliet-Lemont Limestone is an ideal entry point into material study of the I&M Canal, because its enjoyed a fairly limited peak popularity, roughly parallel to the economic functioning of the canal, from the 1840s–70s. Furthermore, it is easy to differentiate from other forms of limestone, such as the Bedford stone that eventually eclipsed it in popularity. Finally, Joliet-Lemont limestone is plagued by a number of conservation issues, namely its rapid erosion, which have ensured that it remain a popular and crucial topic in preservation literature. In examining the material culture of the I&M Canal and other canal sites of the nineteenth century, we can develop a new lens through which to understand regional development in industrial America. That lens, in turn, might guide the interpretation of canal-adjacent sites, and others whose economic relationship to the canal is not immediately apparent.



















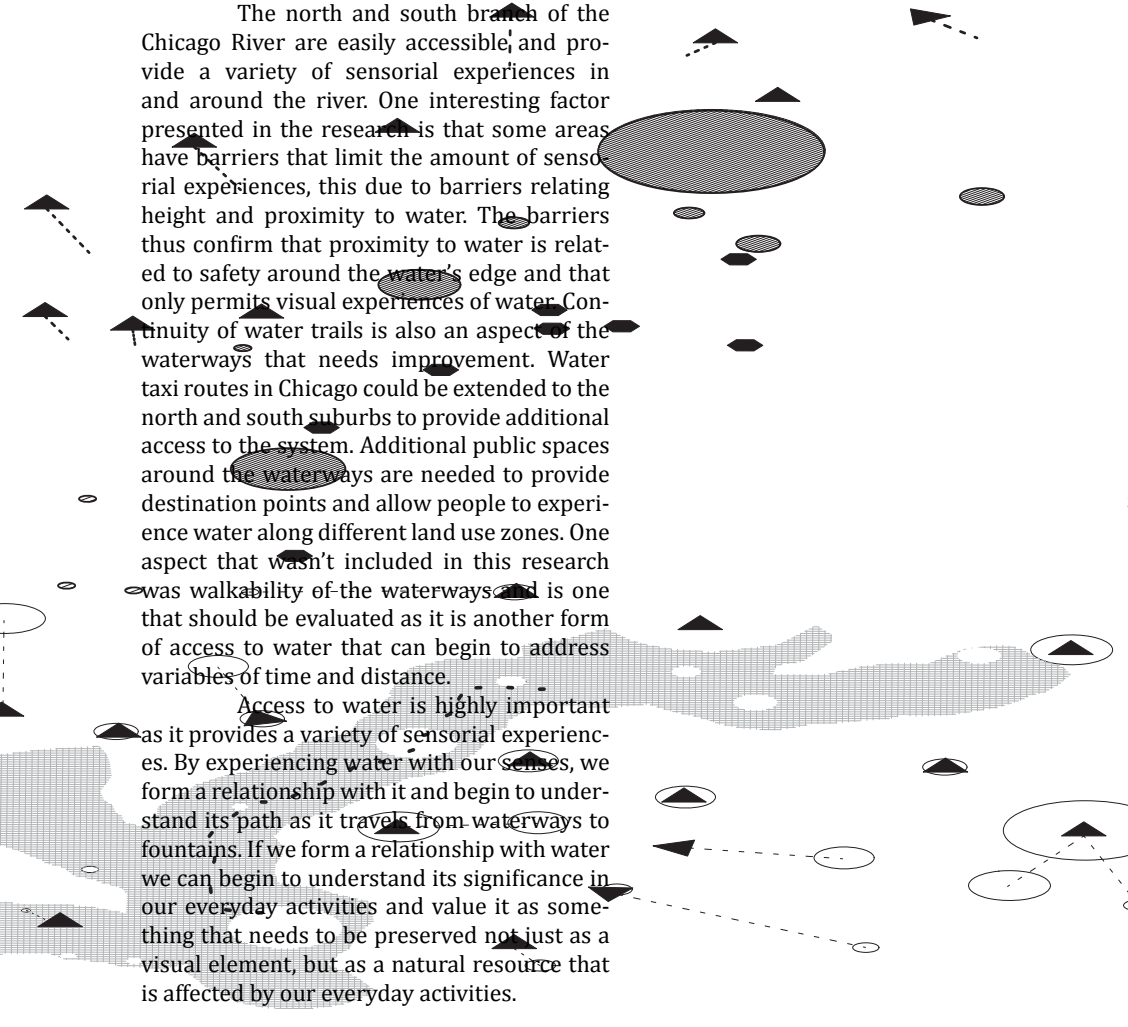



35

Carolina Garcia

Water as a natural resource provides different levels of sensorial experiences. The focus of this research was to analyze the local and regional waterways and identify levels of accessibility to water and places that highlight multi-sensory experiences. The research presented the following questions: How close can one get to water and experience it? To what degree does accessibility permit the understanding of water as it travels from large scale to human scale? The methodology consisted of documenting two experiences with water: water as part of daily household use and water accessed by public transportation. The methodology also included research on the development along the Chicago waterway system as it travels south to highlight the types of development and the level of distribution that can facilitate access to water.

The research began with understanding water systems between Chicago and St. Louis, focusing on the Chicago River, Illinois River, Missouri River, and Mississippi River. The first comparison consisted of documenting urban and rural areas along a 20 mile corridor surrounding the waterway and mapping cities at 50-60 mile intervals. Once these cities were located, access to public transportation was analyzed to determine the distance from the city to the nearest train station. Destinations along the waterway system were also documented; this included public spaces such as state parks and beaches. Additionally, water trails were mapped to determine how many of the cities along the waterways can be accessed by boat. For comparison, additional research was conducted in the Chicago area to determine levels of accessibility along a 1 mile corridor on each side of the Chicago River, from Chinatown to Lincoln Park.The research presented an accessible waterway system in larger cities between Chicago and St. Louis (Peoria and Joliet). Cities with access to public transportation (rail) also provided more sensorial experiences that weren't solely visual experiences. Water trails along the Illinois River were accessible from Peoria to Starved Rock State Park and from Peoria to St. Louis via paddle boat rides. Between Peoria and the South branch of the Chicago River the water trails have limited to no access. In metropolitan Chicago there are kayaking and canoe routes between Chinatown and Winnetka, as well as water taxis servicing Chinatown, downtown Chicago, and Goose Island. As a transportation hub in downtown Chicago, Union Station connects different train routes including water taxi routes. Public transportation in downtown Chicago is easily accessible and in close proximity to the Chicago River.



The north and south branch of the Chicago River are easily accessible, and provide a variety of sensorial experiences in and around the river. One interesting factor presented in the research is that some areas have barriers that limit the amount of sensorial experiences, this due to barriers relating height and proximity to water. The barriers thus confirm that proximity to water is related to safety around the water's edge and that only permits visual experiences of water. Continuity of water trails is also an aspect of the waterways that needs improvement. Water taxi routes in Chicago could be extended to the north and south suburbs to provide additional access to the system. Additional public spaces around the waterways are needed to provide destination points and allow people to experience water along different land use zones. One aspect that wasn't included in this research was walkability of the waterways and is one that should be evaluated as it is another form of access to water that can begin to address variables of time and distance.

Access to water is highly important as it provides a variety of sensorial experiences. By experiencing water with our senses, we form a relationship with it and begin to understand its path as it travels from waterways to fountains. If we form a relationship with water we can begin to understand its significance in our everyday activities and value it as something that needs to be preserved not just as a visual element, but as a natural resource that is affected by our everyday activities.





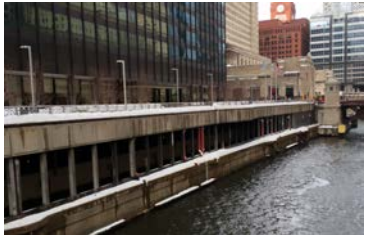


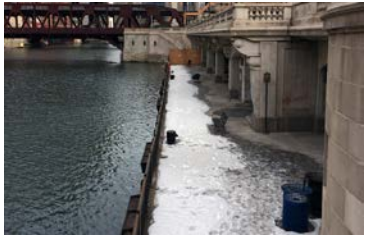













Curtis Witek

THE CHICAGO REGION is at the crux of an international debate over the fate of the human-- made link between the Great Lakes and Mississippi River basins. Mobilized by the threat of Asian carp entering the Great Lakes basin, engineers, designers, planners, and policy--makers alike have begun exploring how these economically and ecologically vital basins could be separated once again. With the recent release of the Great Lakes and Mississippi Interbasin study produced by the U.S. Army Corps of Engineers, we have begun to answer—with increasing technical detail—how physical separation (among other non--physical separation alternatives) could be achieved. My fear, however, is that we—as actors in the Chicago Area Waterway System—are looking for technological solutions to challenges that we do not fully understand.

The Chicago Area Waterway System (CAWS), and the broader region in which it is situated, is a complex socio--ecological system. It is composed of countless actors, processes, and structures that interact across spatial and temporal scales, all within a coupled social and biophysical landscape. Understanding the interactions occurring within and between these landscapes, I believe, can help us reframe challenges like invasive species transfer, urban flooding, and the Chicago River diversion, as opportunities for us to collectively and creatively build a more resilient and adaptive Chicago region. My purpose in conducting this design exercise, therefore, is not to provide answers about how we should move forward, but to raise questions about where we currently stand as a region.

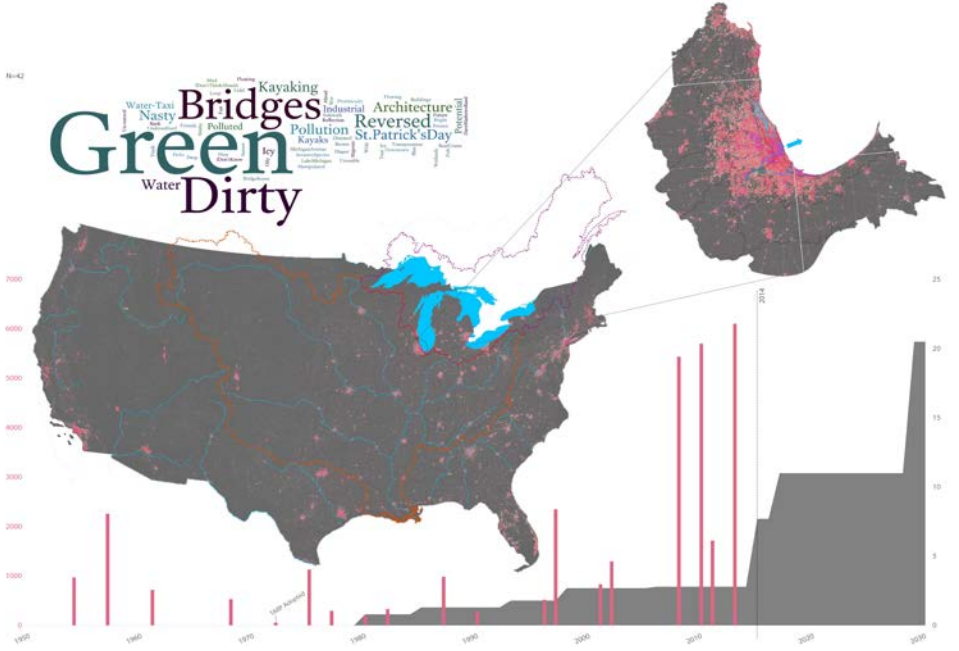
Through a Photo Essay I sought simply to document the diversity of actors, processes, and structures engaged in the Chicago region's urban water system. In doing so, several questions emerged such as: who (or what) constitutes an actor? How do processes and patterns of urban ecosystems differ from those of more natural ecosystems? And how do these patterns and processes change across different spatial scales?

While tools like Google Earth have dramatically expanded the way we see and understand the biophysical landscape, the political landscape is far less understood. Through Chicago Expander [Board 1], my aim was to illuminate the mismatch between the political scales (i.e. state, county, and municipal) at which policies are made and the scale of hydrological and ecological systems that we're attempting to manage.

Finally, Chicago Expander [Board 2] is intended alert us to limitations of linear and quantitative solutions to non--linear and qualitative challenges.

The board shows that—even after investing $3 billion dollars since 1972 to construct 2.6 billion gallons of stormwater storage capacity—the region is still facing widespread, costly and repetitive urban flooding events (of which the particularly large ones will cause Chicago's waterways to reverse and dump untreated stormwater into Lake Michigan). What's more, urban flooding is expected to occur even after the massive Tunnel and Reservoir Plan (TARP) is fully constructed.

Put simply, there is no "one best way" to solve the challenges of invasive species transfer, urban flooding, or the diversion of a city's wastewater to downstream communities. I have hope, however, that the act of collaboratively reconsidering the complexity of our region's challenges, can serve as a springboard for building trust and developing the creative solutions that will make our region more resilient and adaptive to the changes ahead.

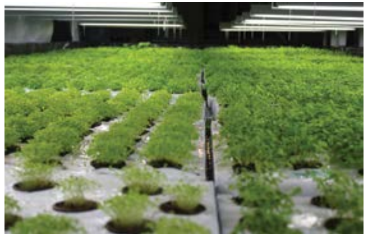








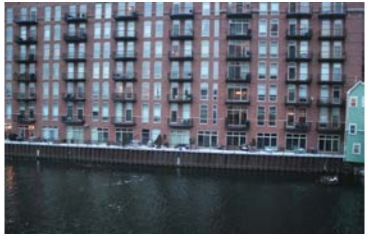









35

Elizabeth Ferruelo

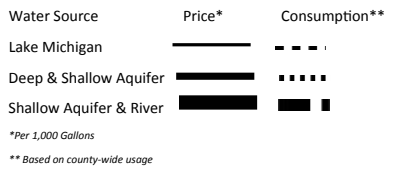
The Lakes Next Door: Assigning Value to a Strategic Reserve

Although most would agree with the World Economic Forum that water is a top global risk, its future seems decidedly local—and messy. Water in Schaumburg costs nearly twice as much as water in Elgin and is governed by different laws, even though both Illinois municipalities lie within a 35 miles radius of Chicago and Lake Michigan. In a region where water is seemingly abundant, how is it valued and why does it matter?

The exercise of understanding the water systems of greater Chicago--Lake Michigan, the rivers, and deep and shallow aquifers; leads one from engineered infrastructure to webs of policies and laws that determine price and allocation. In my research, unraveling the chain did not reveal any meaningful relationship between geography to price and consumption. It did, however, help inform a thought-process and discussion on the value of water, which matters more.

Of the factors that influence municipal water supply: population size and growth, temperature and climate, governance, natural systems and supply, and pricing; a lack of data, especially of consumption and usage, confounded attempts at correlation. And although pricing patterns proved elusive, other frameworks and relationships emerged. Mapping networks of policies and laws governing municipal supply revealed inter-connected systems. A few of these deserve mention. Thanks to early twentieth century engineering, our regional water supply is connected to the supply of a massive portion of the United States (the Great Lakes Basin linkage to the Mississippi Basin); within the Great Lakes Basin, decisions in Toronto affect lake levels and thus water supply in Milwaukee, for example; and regional aquifers impact Lake Michigan: Lake water allocation is considered a tool to preserve these groundwater resources.

Not only does policy impact usage, it influences value. For water matters, legal jurisdiction is set by type of source: lake, groundwater or inland surface; and typically multiple laws apply. For example, Lake Michigan is governed by the international Great Lakes Compact, the federal Level of the Lake Act, and state-level EPA enforcement of pollution control. Since this is the case in Northeastern Illinois, decisions must contend with a smorgasbord of laws. To further complicate matters, pricing systems within a given supply source vary just as much. Water pumped from a deep aquifer may be much more costly than surface supply, yet prices don't reflect this differential. In fact, most users pay for the infrastructure rather than the water itself, according to the Illinois Department of Natural Resources. Even so, rates are insufficient to maintain even the physical distribution network: the Chicago region loses approximately 70 million gallons of Lake Michigan water per day, or 26 billion gallons a year, according to Metropolitan Planning Council's report citing the LMO2. This unfortunate phenomenon spans the country.



The result is that users are disconnected from the real cost of water. Laws of supply and demand tell us that value rises with price, which in this study means that Chicagoans value water less than consumers in Cleveland or Schaumburg. In addition, the massive quantity of water lost through leaks also reduces its perceived value. Value depends on purpose, and water is many things at once: a public good, a product sold by utilities, a municipal revenue generator and an industrial input.'

Although it has been classified as a strategic asset by the Department Homeland Security, water is different from other natural resources. To protect oil in times of crisis, a national strategic petroleum reserve was created. As the world's largest resource of surface freshwater, the Great Lakes clearly merits attention and value equal if not greater than other infinite resources. It's time to think hard about the value of this international strategic water reserve.

Shafaq Choudry

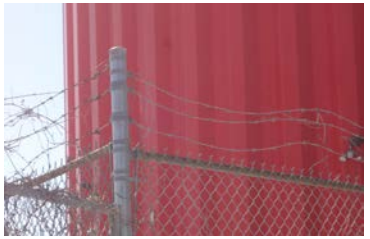
The United States holds half of the largest water treatment plants in the world. Combined-- Chicago, Boston, Detroit, Los Angeles and Washington DC roughly serve 14.4 million residents in their residing metropolitan regions. Beyond the border, Mexico City will soon take the title from Chicago's Stickney Water Treatment Plant and become the largest water treatment facility in the world; serving 100% of its growing population of 19 million people.

It's not a completion between quantity but rather quality of water and technology. Improved water sanitation systems in urban areas around the world are a necessity for survival and serious public health challenge. According to the World Bank, nearly 2.5 billion people lack access to improved water sanitation and 1 billion practice open defecation. Lack of sanitation costs the world 260 billion dollars annually and is also the leading cause of infection. The relationship between water infrastructure and public health goes hand in hand when we see that only 10% of water gets treated and the rest goes into lakes, rivers and oceans.

In Chicago's metropolitan region, we consume 2 billion gallons of water from Lake Michigan and create 1.5 billion gallons of wastewater daily. Although we may have the largest water treatment plant in the world, does that necessarily mean we have the best?

To what standards do the best uphold? In other words, do the water treatment and sanitation plants in the Chicagoland region hold the knowledge, technology, leadership and sustainability practices that are sought after in today's emerging economy of water treatment and sanitation systems worldwide? Are Chicagoans aware and conscious of the systems in place to ensure we have clean and treated water to meet our daily needs? As water infrastructure projects continue to grow in number and size in cities across the globe, what is the public's interaction with these places?

My research is focused on identifying water treatment systems in relation to the built environment and public space, particularly along the Calumet--Sag Channel. I'm interested in the public visibility that water infrastructure has in the Chicago region, beyond the recreational lakefront and into visible systems that impact the built environment. From our residential neighborhoods, commercial and industrial areas, playgrounds and waterways, I am looking to uncover the direct or indirect impacts created by water facilities on people and places. By drawing examples from Mexico City, Singapore and New York City, I am building upon this notion that the public's interaction and experience with water treatment aesthetically integrated into the built environment can be interlinked with public space and therefore increase awareness and consciousness of water use.




















Tony Janis
Between the Folds

Throughout our workshop process concerning humans' vast relationships with water, I expanded upon a simple truth: nourishment. From my first-hand experience, the basic act of wandering water's line, hiking within its' immersive experience, finding direct access to sources and then carrying water's weight on multi-day backpacking trips is profoundly nourishing. These experiences created new realizations and opened my mind to consider, what does it mean to be human? I am one who developed from an embracing rural Wisconsin and continue to grow within cities. In Chicago, I live the margins of adaptation; I inhabit the edge of a vast lake that gives my urban life wholistic meaning and energy. It is a coast of one of the five great planetary lakes, supplying us life giving water. From Milwaukee to Chicago, and Lake Michigan's southern sandy dunes, we know each other well.

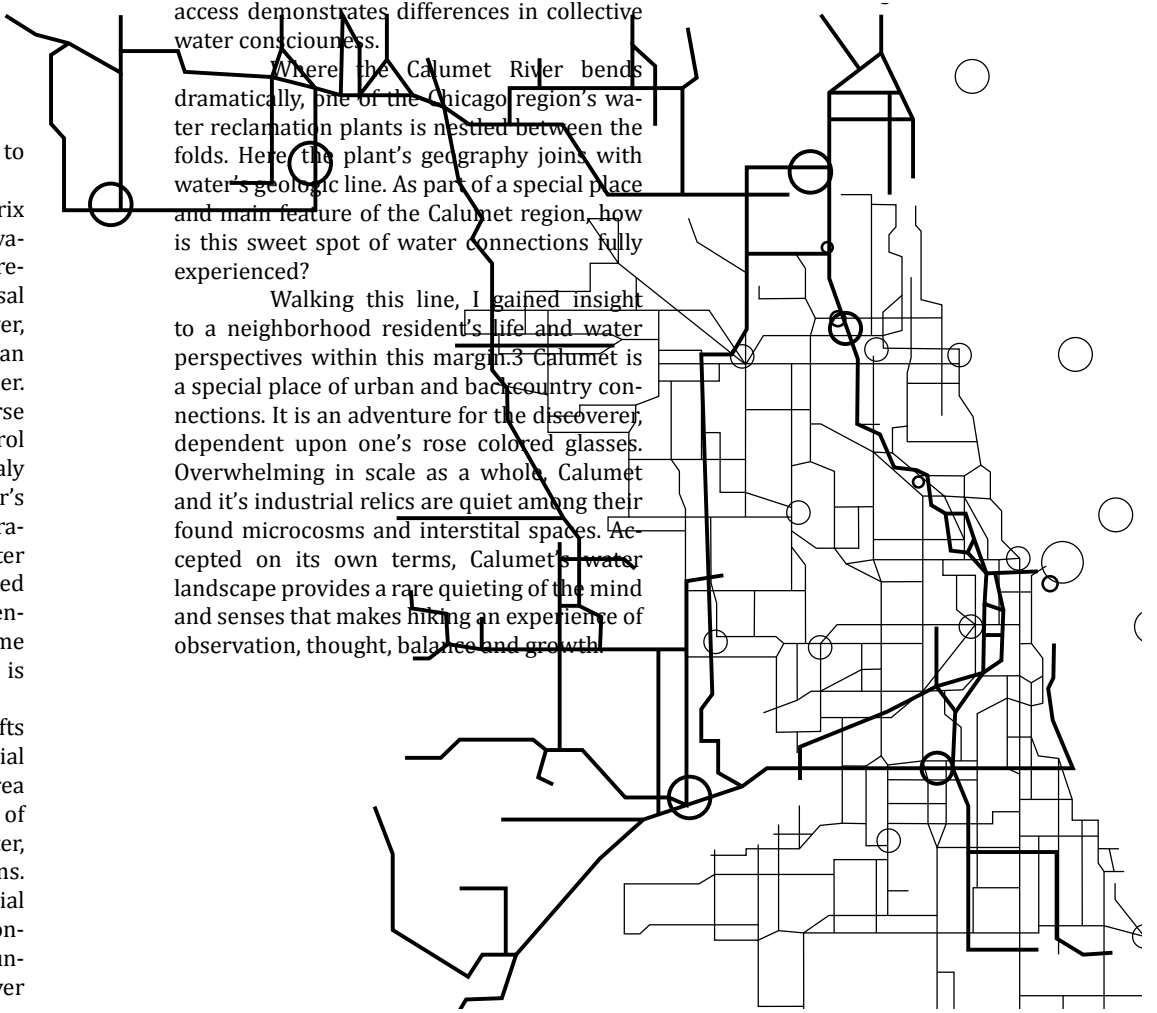
Drawing as a way of thinking gave focus on unveiling our inextricable water dependence. Our great lake and waterway connections, understood diagrammaticlly through lines reveals Chicago's urban water metabolism.1 The city as an organism is composed of networked underground water systems, essential yet epistemically disconnected from our present tense. Showing our regional water manipulation raised meaningful ubiquitous ubiquitous and subjective points of interest to explore.

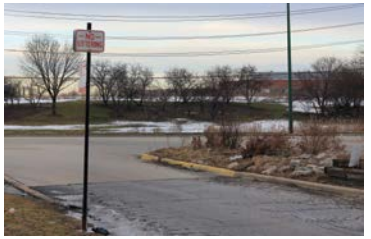
Throughout the underground matrix of these systems, moments of ~~our hidden~~ water supply and reclamation infrastructure realize surficial connections. Regular dispersal of above ground structures appear; however, a cluster in the Calumet area stands out as an anomaly of the network to observe further. Within this south side area's rich and diverse water ecologies, this group of water control mechanisms is an anomaly within an anomaly of Chicago's impervious urban fabric. Water's geologic line draws and defines our geography; additional space drawn by our water manipulation is a force physically manifested through layered lineages of water values. Generational evolutions of thoughts that become things create microcosms of the field. This is our folded water.

A palimpsest of urban ecology, rifts in the city's fabric and microcosms of special natural significance within the Calumet area are finely interwoven. Between the folds of the built environment's disassociative scatter, rare immersive experiential nature remains. Special places surveyed by research social scientist, Herbert W Schroeder, maps respondents' deep intrinsic value of these backcountry microcosms; a closer look at Calumet river access demonstrates differences in collective water consciousness.

Where the Calumet River bends dramatically, one of the Chicago region's water reclamation plants is nestled between the folds. Here the plant's geography joins with water's geologic line. As part of a special place and main feature of the Calumet region, how is this sweet spot of water connections fully experienced?

Walking this line, I gained insight to a neighborhood resident's life and water perspectives within this margin.3 Calumet is a special place of urban and backcountry connections. It is an adventure for the discoverer, dependent upon one's rose colored glasses. Overwhelming in scale as a whole, Calumet and it's industrial relics are quiet among their found microcosms and interstital spaces. Accepted on its own terms, Calumet's water landscape provides a rare quieting of the mind and senses that makes hiking an experience of observation, thought, balance and growth.



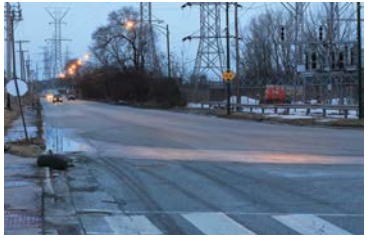
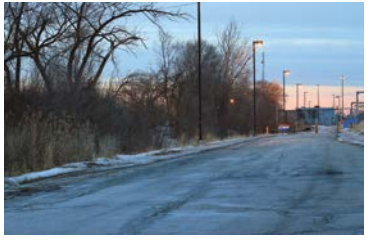











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WORKSHOP #5
food

Eugenia Macchia
FISKE ELEMENTARY SCHOOL / COMMUNITY GARDEN

On May 22nd, 2013, the Chicago Board of Education voted to close 50 of the system's underutilized public schools in the city.

During the summer of the same year, the Mayor Rahm Emanuel created the Advisory Committee for School Repurposing and Community Development that is currently working on the preparation of a plan for repurposing the sites of the properties.

Nowadays, only 2 schools have been successfully repurposed and other potential ideas have been evaluated for more 14 buildings. On the other hand, the majority of the closed schools is still waiting for some proposals.

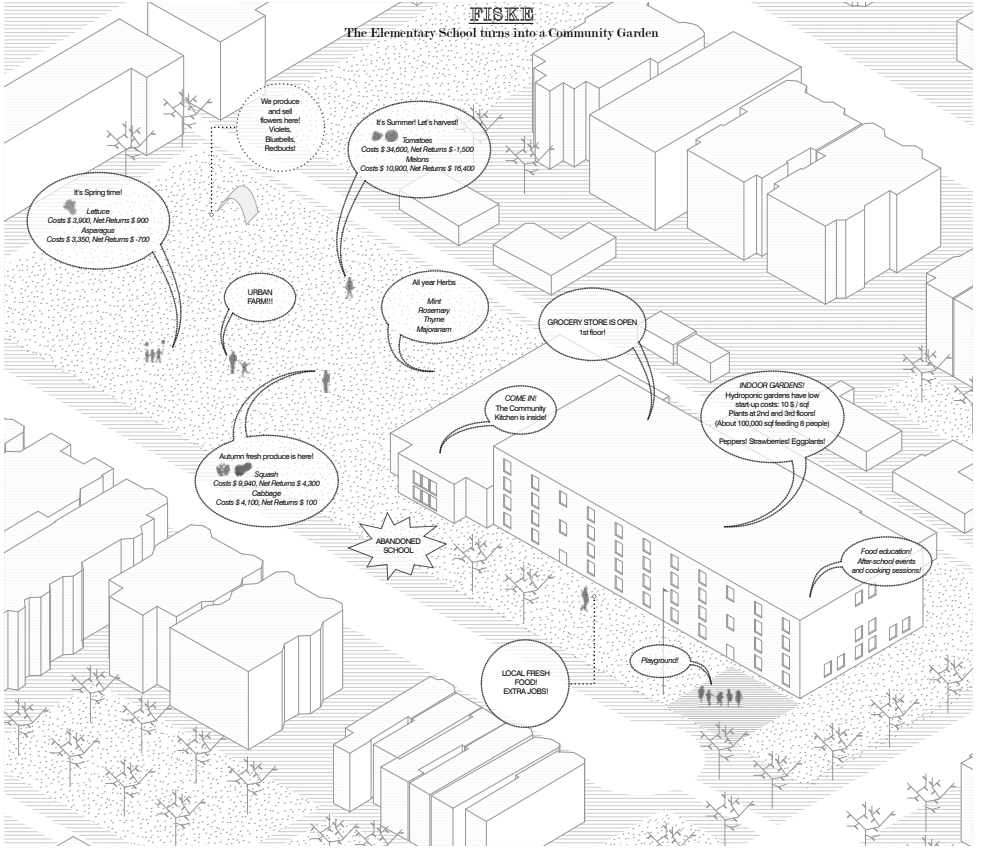
Given the iconic importance of such institutions, the research here presented proposes to preserve the educational and social role embodied by the public school and it's aimed to maintain the building as a pole of attraction for the community. In particular, the research follows the idea to turn the abandoned building and its surrounding land in an experimental environment linked to the food education.

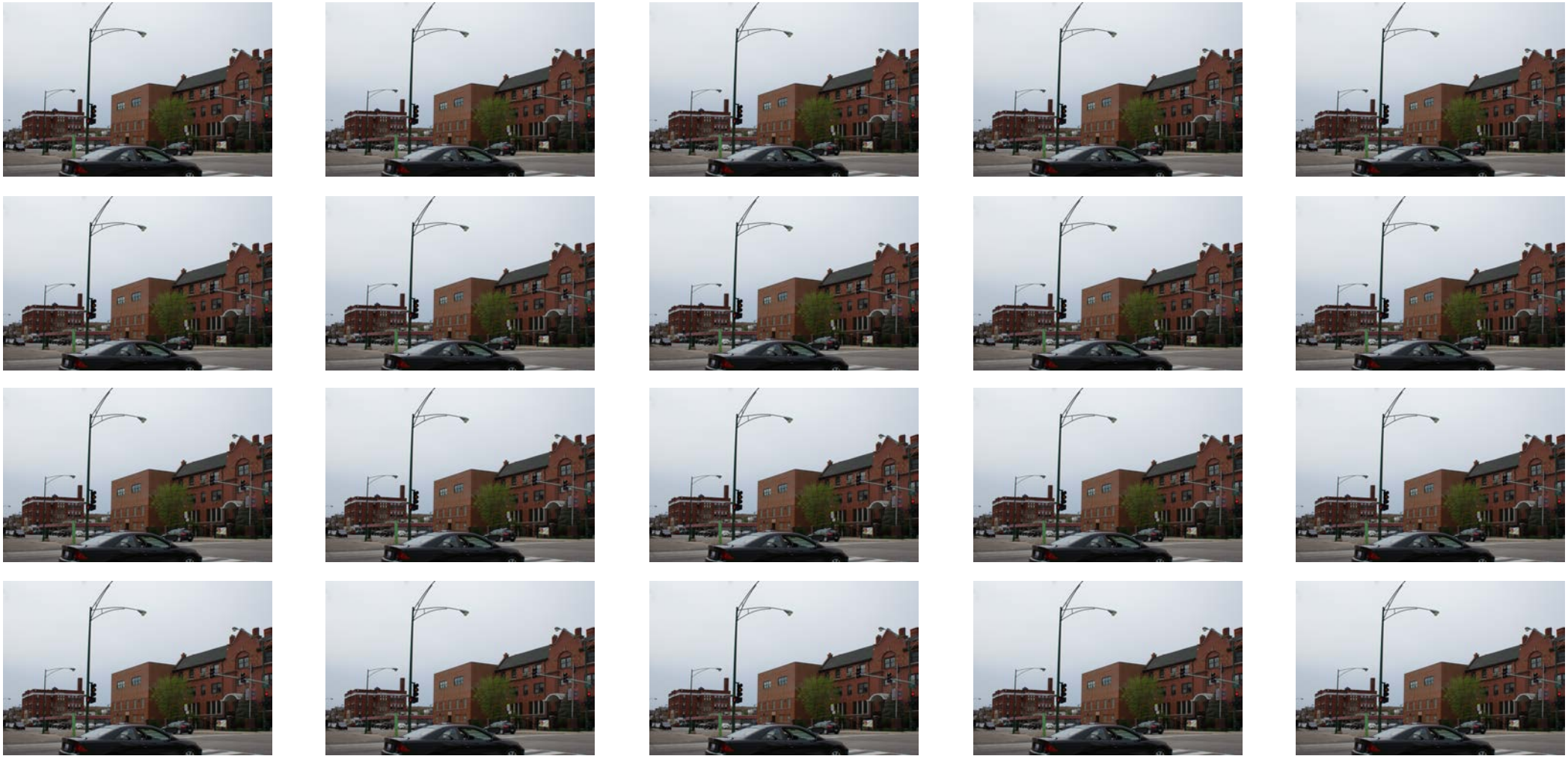
The first board has the role to identify a spot of intervention. In fact, it focuses on the geography of the city and localizes the position of each abandoned school, whose dot is increased depending on the available land of the property. This map is a useful tool to narrow the needy regions depending on the three parameters: accessibility (distance from public transportation), amount of outdoor available land, location (proximity to areas with high levels of unemployment, food desert, farmers markets net).

The Fiske Elementary school met these parameters and became the target of the research. Thanks to its strategic position, the project aims to turn this school in a new center of food education for those poor neighborhoods set around the school that are notoriously known for being afflicted by the lack of fresh produce and often inclined to consume low quality prepared food.

The project proposes to use the outdoor land for the cultivation of some specific vegetables which are suitable with the Illinois climate and that are carefully chosen to allow a continuous activity of the "Farm" during the year. In addition, the project considers the possibility to use part of the building for the indoor hydroponic system which is giving birth to many popular low budget start-up.

The project also considers the idea to introduce events and activities linked to the food topic and to provide the community with a dynamic and positive space where meeting, working, playing and learning. Therefore, the Assembly Hall might host tables for collective lunches, the first floor of the building might host a little grocery store while the large residential street facing the school might host a local farmers market.





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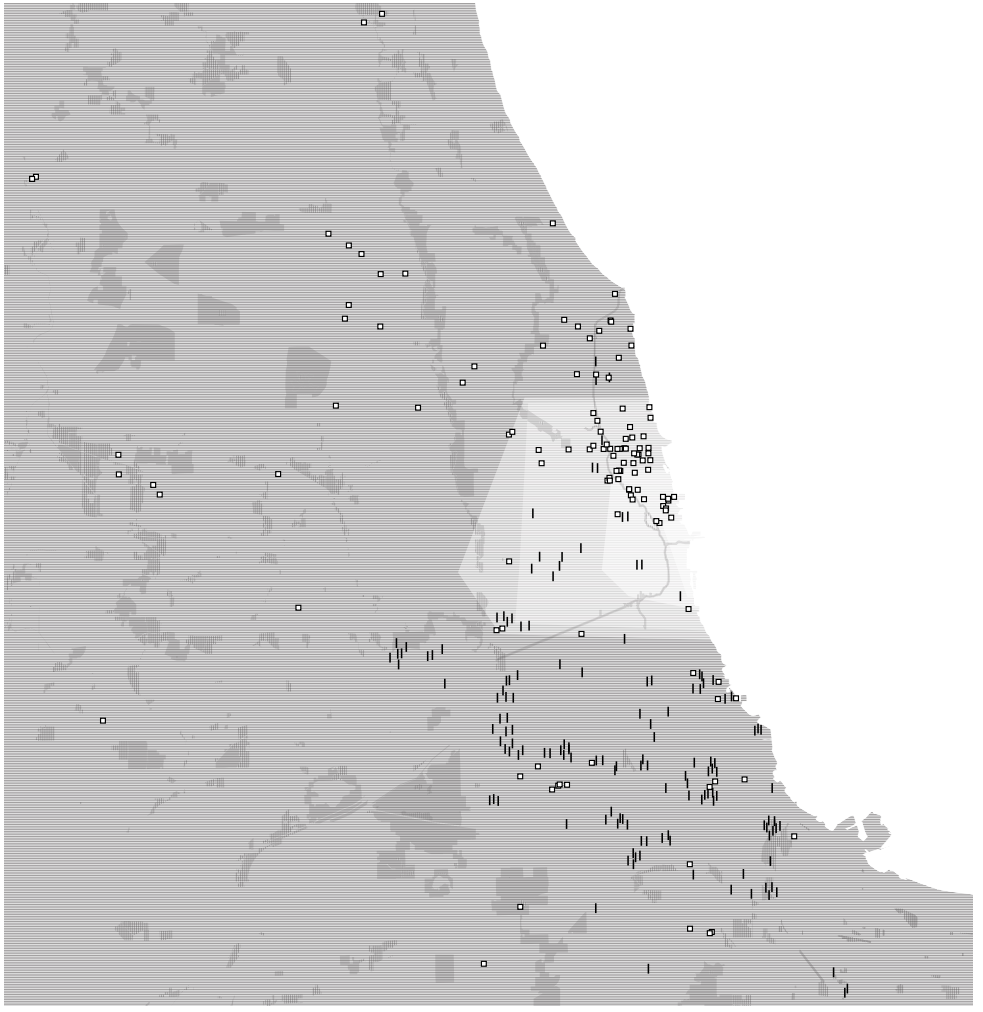
Kerrie Butts

Many animals such as deer, opossums, skunks, foxes, raccoons, rabbits reside in the Chicago metropolitan region. Species classified as urban wildlife are synanthropic and thrive in the presence of humans. Humans influence wildlife by generating trash and organic waste, cultivating gardens/landscaping, keeping pets and livestock, and in general developing land in a way that reshaping habitats. Vehicle collisions are a major cause of mortality for many mammals. For example, White tailed deer's preference for forest edges to dense forest conditions leads to the herbivores grazing in suburban neighborhoods and roadside areas. Rail right of ways, large parks, vacant lots and river corridors provide ecological corridors that encourage regional biodiversity. The Urban Wildlife Institute monitors specific urban species along these corridors to better understand the behavior of animals in urban contexts. Ecological research projects also solicit resident sightings to track wildlife movement.

For the Micro-Geographies mapping, parakeets and coyotes sightings are selected due to their direct and indirect reliance of human provided food sources. This information is overlaid on the habitat region of other species that generate a buffer around the city. Starting out as pets, monk parakeets are a non-native species to the region with unique nest structures. The accidental or voluntary release of parakeets established a breeding ground in Hyde Park as early as the 1960s and have increased substantial over the past few decades. Parakeets in the Chicagoland region rely on seeds from birdfeeders for sustenance during the winter1. The number of coyotes living in Cook County is estimated at over a thousand. These discreet residents are adaptive to changing environments. Coyotes are apex carnivores with opportunistic eating habits. Analysis of coyote's diets shows a higher concentration of human-associated trash, fruit and pets in urban areas2. Coyotes help control rat and squirrel populations. Rodents, raccoons are scavengers that are also attracted to the by-products of human occupation. While many species have urbanized areas as part of their natural habitat, coyotes can survive in exclusively urbanized and densely populated areas. Coyotes are more active after dark than their rural counterparts to avoid peak times of human activity. Coyotes in urban areas have a better survival rate than those living in rural areas. The benefits and challenges of coexisting with urban wildlife warrant further investigation. An increased awareness of our role in the ecosystem encourages better cohabitation and fosters the preservation of natural areas.



exercises

1. The World within theWorld? #W1_#W2

In recent decades the world has been described through established readings of architecture, the city and nation-states. However, discussions of globalization have developed an increasing number of positions. With the world on one end, and architecture on the other, perhaps more than ever, architecture is facing the problem of how to engage with issues that span across national boundaries. Hashim Sarkis argues, “one of the ambitions of architecture and urbanism is to make emerging social conditions visible” asking “why are we not seeing the world as a possible scale of operation?” If we look at Chicago and its larger region, we are looking at a world, a whole made up of fragments, a world within the world.

In this sense, the first phase will look at Chicago with the world as a possible scale, and contest scalar dimensions, boundaries and systems. What are these urban- and regional formations, microgeographies, (shadow) infrastructures, ecologies and demographic flows that revise meanings of urban, regional, and architectural configurations that are greatly affecting Chicago as a spatial construct? Each student is asked to determine his or her own field of critical inquiry and carefully explore sites in the larger Chicago region. Identify geographies, “a whole made up of fragments, a world within the world,” as your field of inquiry. Look at Chicago in relationship to Energy and Economy and how it relates to larger systems.

In a 2-minute movie, documentary or photo sequence you will present your project and carefully place it within a larger context. Utilize the camera as a device –“ a heuristic device vis-à-vis the technical axioms of the work of the designer: it is by nature subjective, arbitrary, partial, and partisan” – to experience space, and play with scale and context. Your film, or photo sequence should help us understand the “geography” of your chosen subject and document buildings, cities, landscapes, systems, ecologies, people, everything that will help us understand how you dismantle the regions spatial and cultural meanings – presenting (a) new microgeographies. Confront the territory and its inhabitants with the camera and actively intrude sites, edge conditions, boundaries and trajectories. The movie should be a testimony of use, program, people, and space leading to a deeper understanding of Chicago, but also place the city and its hinterland within larger (global) contexts. In this sense, the film as a medium will become a form of documentation that will allow you and the viewer to develop critical positions, and by virtue discover a mnemonic and transmissible support for your research.

_ Format: 2 minute video (.avi format)

2. Micro-Geographies

This second exercise will emphasize on drawing (by hand) as a way of thinking, analyzing, asking and saying. In this phase we will continue our explorations and transition from film to paper [or canvas] and investigate systems, networks, spaces, environments, territory, scale, materiality, land use on a micro geographic scale. Draw and further examine the interrelationships between the city and the hinterland, and analyze how these (inter)-relationships are spatially manifested. In this context we will also examine the role of design in addressing the challenges of rural development; challenges that have been generally placed outside the concerns of designers.

Format: 18" x 24" sheet of paper

#W1_#W2_#W3_#W4_#W5

3. Chicago Expander

In this third exercise of the workshop you are asked to consolidate your research and formulate your position spatially.

_ To which conditions, phenomena, events, perceptions, histories, etc... does your work respond to?

_ How does your project interrogate the notion of the larger Chicago region, as part of a larger whole? as a spatial entity?

_ What models does it put forward in response to the conditions of the 21st century?

_ What architectural tropes have emerged as a formal response to spatial conditions you found in Chicago, and what new tropes are you proposing?

This exercise can be built upon the ideas of the previous two exercises but should incorporate thorough research, analysis of local, national and global contexts (relative to your subject), finding statistical data, GIS mapping, interviews, understanding how networks function, the study of precedents and knowledge of authoritative literature in your subject field.

_ Format: 18" x 24" plot

#W1_#W2_#W3_#W4_#W5

4. Argument

In the fourth and last exercise you are asked to produce a short essay of 500 words that formulates your approach, establishes your methodology of exploration, and outlines your findings.

_ Format: 8.5" x 11" print

#W1_#W2_#W3_#W4_#W5

5. Photo Essay

In a photo essay formed by 20 high-res images, understood as a sequencial narrative, you will present your project and carefully place it within a larger context. Utilize the camera as a device –" a heuristic device vis-à-vis the technical axioms of the work of the designer: it is by nature subjective, arbitrary, partial, and partisan" – to experience space, and play with scale and context. The photo sequence should help us understand the "geography" of your chosen subject and document buildings, cities, landscapes, systems, ecologies, people, everything that will help us understand how you dismantle the regions spatial and cultural meanings. Confront the territory and its inhabitants with the camera and actively intrude sites, edge conditions, boundaries and trajectories. The photo essay should be a testimony of use, program, people, and space in relationship to Transportation leading to a deeper understanding of Chicago, but also place the city and its hinterland within larger (global) contexts. In this sense, photography as a medium will become a form of documentation that will allow you and the viewer to develop critical positions, and by virtue discover a mnemonic and transmissible support for your research.

_ format:20 high-res images printed 11 x 17 inches in landscape format

#W3_#W4_#W5

calendar

#W1_ Energy and Economy
March 19, 2013-April 6, 2013

#W2_ Agency
April 15, 2013-April 6 2013

#W3_ Transportation
May 6, 2013-June 1, 2013

#W4_ Water
February 3, 2014-March 1, 2014

#W5_ Food
April 14, 2014-May 10, 2014

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_ Feeding Illinois
http://www.feedingillinois.org/

lecturers

Lyndon Valicenti (workshop #1)
Environmental Strategist (used to work at SOM’s urban design & planning group)
I believe she talked about the Great Lakes Century Vision Plan:http://www.som.com/projects/great_lakes_century_vision_plan

Ryan Wilson (workshop #1)
Now Senior Water Project Lead at Elevate Energy (Stormwater Program Manager at the Center for Neighborhood Technology when he gave the talk)

Jeffrey Sriver (workshop #3)
Director of Transportation Planning and Programming, Chicago Department of Transportation
He talked about the CREATE program: http://www.createprogram.org/

Claire Cahan (workshop #4)
Senior Project Leader at Studio Gang Architects
She talked about their Reverse Effect project: http://www.studiogang.net/news/updates/2011/10/reverseeffect

Paola Aguirre and Dennis Milam (workshop #4)
She is a Research Analyst, Design Strategy at Place Lab at the University of Chicago and he is an architect at SOM
They talked about their From The Shore project: http://www.mascontext.com/issues/17-boundary-spring-13/walking-the-blue-line/

directors

Iker Gil is an architect, urban designer, and director of MAS Studio, a collaborative architecture and urban design firm with a multidisciplinary approach to a wide range of projects. The studio develops its work with an emphasis in research, built work, publications and exhibitions. Research of topics that affect directly or indirectly the urban environment is applied to competition and built projects and ultimately shared through publications and exhibitions. The work of the office has been exhibited at the Art Institute of Chicago, Museum of Contemporary Art Chicago, the International Venice Architecture Biennale, the Istanbul Design Biennial, WUHO gallery and pinkcomma gallery among others. Iker is also the editor in chief of the quarterly design journal MAS Context, the director of the architecture series at the Instituto Cervantes of Chicago, the editor of the book Shanghai Transforming (ACTAR, 2008) and curated the exhibitions “Shanghai Transforming” at the Chicago Architecture Foundation and Virginia Tech, and “Synchronizing Geometry” held at S.R. Crown Hall (IIT). In addition, he has taught design studio courses and architectural analysis at the School of Architecture at UIC, and Master Thesis preparation at the College of Architecture at IIT. Since July of 2011, he is a board member of the Chicago Architectural Club. Iker has received several grants and awards for his work, including the 2010 Emerging Visions Award from the Chicago Architectural Club and grants from The Richard H. Driehaus Foundation and the Graham Foundation for Advanced Studies in the Fine Arts in support of MAS Context.

Antonio Petrov is currently teaching at the University of Texas in San Antonio. He is also program director at Archeworks in Chicago, co-founder and current editor-in-chief of the Harvard GSD publication New Geographies, the founder and editor-in-chief of DOMA, a bilingual book series published in Macedonia, and the director of WAS, a think tank located in Chicago. In his research Antonio explores issues of place, politics, culture and society as inscribed in the geographic. He also investigates “superordinary” aesthetics in evangelical architecture in the United States. In his forthcoming book, Superordinary: New Paradigms in Scared Architecture Antonio traces the history of evangelical architecture arguing that postwar American Protestantism not only overcame the traditional signification of sacred architecture, but also its dichotomy of

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form, function and aesthetics. With his work he establishes interdisciplinary frameworks that intertwine complex regional, urban and architectural processes questioning singular disciplinary responses to contemporary political and socio-cultural contexts. He holds a doctoral degree in the history and theory of architecture, urbanism and cultural studies from Harvard University.

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Carolina Garcia
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Jessica Calek
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