

Lagscapes: The Fleeting Opportunism of the Transitional Urban Landscape

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The Great Lakes Basin is home to a large number of cities considered to be “shrinking”. This term is both negative and inaccurate in describing what is actually a unique phenomenon of landuse fluctuation. However the negativity and lack of precision that accompany words like ‘shrinking’ and ‘vacant’ have generated a tremendous rift in any attempt to understand our contemporary urban processes as anything but problematic, and force our hands toward nostalgia-driven strategies of problem solving. Instead, this fleeting and precious moment of Lag should be used to undertake a much more inquisitive and opportunistic set of possibilities – before it is too late.

THE GREAT LAKES SITUATION

At this point in history, most people have some understanding of the role the North American Great Lakes has played in the development of both the United States and Canada. In many ways, the Great Lakes Basin was the industrial backbone of both countries. It contains some of the largest ports in the world, some of the busiest shipping channels, and one of the most extensive collections of industrial lands found anywhere. Most readers are also aware of the slow decline of heavy manufacturing that characterized the Great Lakes region after the 1950s and the resulting ‘post-industrial’ conditions this decline has brought about. In addition to the loss of particular industries, population fluctuation has also heavily affected the region, with many urban residents moving from city centers toward the urban periphery. It must however be made clear that this migration was not from the Basin to other parts of the country, but simply a moving around of populations within the Basin itself. While we think of cities that have lost population as the primary icons of the Great Lakes region, it is actually a region that has grown steadily in population as a whole. That said, we are doing ourselves a tremendous disservice by identifying the Great Lakes Basin as a region in despair (although despair does exist). This presumption promotes operations of desperation to ‘fix’ the problem of population loss – when the real problem is a rapidly growing population, delusional about their post-industrial condition, making desperation-driven decisions around the largest freshwater resource on Earth.

Several items that *could* be used to characterize the region might be:

1. As stated above, a region that is actually growing in population that contains cities that have seen losses in population within their borders. In recent years, even this situation is losing traction, as many cities have seen strong influxes of residents back toward the urban core. Taking that into consideration, it could be bluntly stated that the region is simply growing and expected to continue growing.
2. A region that relies heavily on the freshwater resources of the Great Lakes for drinking water in addition to manufacturing and energy production.
3. A region that possesses some of the largest and most diverse freshwater ecosystems anywhere on earth.
4. A region that, due to the time period when it was developed, contains one of the largest distributions of combined sewer systems anywhere in the United States.
5. A region that has historically polluted both the land and the water to degrees that not only harm the region’s ecosystems, but also challenge efforts to re-use or re-populate urban areas.
6. A region where the land/water interface is rapidly changing due to climate change, privatization and myopic desires to control water levels.

This paper will explore a set of positions and strategies that could apply in contexts world-wide. However the ideas presented here are the product of the author’s work in the Great Lakes region.

THINGS CHANGE - DEAL WITH IT

Understanding that the systems around us are in tireless fluctuation and that we must adapt to these changes as opposed to foolishly attempting to control them will likely be the revelation of our generation. Developments in systems thinking, resilience theory, and non-linear ecosystem studies all illuminate this trend. Put simply, the world is changing and we have to deal with it, as opposed to denying it or attempting to perpetuate some impossible future of stability. Using this line of thinking, we could begin to consider any site, landscape or territory as the resultant product of a series of genetic, economic, social, and energy flows. All places exist in a highly temporary phase between what they have been and what they will become – nothing is stable.

The idea of ‘vacancy’ in many ways is a product of this misguided desire for stability. Looking at the system more broadly, vacancy does not exist. This term is something we apply to land that does not operate as it was most recently intended. Put another way, it is land that is changing as opposed to remaining frozen within some operational regime thanks to continuous resource input. These lands are better defined as ‘transitional’ as they flow from one state to the next. There are however seldom cases where this process of transition is desirable, thus we see these changes as associated with failure and neglect as opposed to simply a part of a larger system of urban transformation. And while exceptions do exist, traditional planning methods (which still seem to dominate practice) put emphasis on the control and predictability of the elements being planned. In these operations, change is defined as the force to be contended with and avoided. Acknowledging the ubiquity of change and finding ways of leveraging it becomes the true focus of effective design practices – it is not a ‘problem’ to be solved (assuming that solving problems is actually a productive use of design in the first place). Things change, and the designers and planners that can accept and leverage these fluctuating conditions as opposed to controlling them will be our leaders.

With respect to transitional urban land (or any land for that matter), we simply need a more developed way of understanding these places as territories written and rewritten by forces that vary through time based on personal interests, economics, physical attributes, and contextual conditions. In order to do this, a closer look needs to be taken at both existing contexts and the scripting forces affecting a particular place.

CONTEXT

In an effort to avoid the rabbit-hole of ‘context’ it should simply be stated that the existing (and dynamic) conditions of any particular place must be taken into consideration before propositions can be made. Every physical thing exists within some kind of context. Within the urban environment, we might just refer to these as the ‘existing conditions’ of a landscape. These contexts can be understood as both qualitative and quantitative. Observers and residents bring their own context, thus generating a network of contexts to be considered and all contexts are subjective based on how they are interpreted. Contrary to all efforts of site analysis, there is no ‘getting it right’, instead we should be trying to ‘get it well’.

This discussion will use one particular project to introduce the idea of a contextual interrogation. This project was based on the assumption that so called ‘vacant’ parcels vary considerably across the urban landscape, and that there could be value in the collection of high-fidelity information about them, as opposed to treating them as a ubiquitous collection of urban lands.

There are certainly many ways gather information about a place. For this project we wanted to better understand the site-by-site idiosyncrasies of parcels throughout the city. This detailed information was then used to aid in making green infrastructure decisions as a way to mitigate urban runoff and subsequent combined sewer overflow events. For the project our team worked with the city of Buffalo, New York to develop a tablet application that aided in the collection of information in a consistent

manner, regardless of assessor. Meaning that the application provided a comparable dataset no matter who was inputting the data (assuming they had some basic training). This was necessary, as the project itself represented over 5000 parcels demolished between 2000 and 2010, and would take multiple years to complete. Keeping the same workforce was seen as highly unlikely.

Guided by the application, data was collected on soil permeability, compaction, vegetation and slope, in addition to other contextual information such as condition of surrounding properties and existing stormwater infrastructure. Photographs were easy to collect and geo-locate with the tablet, thus providing a large visual catalog of the parcels. The interesting thing with this process (beyond the fact that it is the largest field-verified vacant property assessment project ever undertaken at the parcel scale) is that the answers of what we were looking for where not stated at project onset. We knew we needed data, but did not know exactly what data to collect, so the collection process was designed to contain both redundancy and creativity. This process also guarantees that we were not attempting to only collect the data that proved our hypothesis; an arguably common operation in science¹. This project advocates for the role of the designer as inquisitor as opposed to problem solver.

With this data we have begun assembling a list of hypotheses that we believe the dataset could answer and which will give us a range of stormwater performance metrics and relationships at the parcel scale that is unlike anything ever collected. This process helped in establishing a more developed sense of context – at least as it related to the subject matter of focus. The next topic of interest is the forces that write or script a site through time. We can think of these in many ways, and anthropological brute force is the typical method; meaning we want a place to be something, and make it so. However, this paper advocates for the consideration of more ‘opportunistic’ forces, as they are fundamentally tethered to context.

THE FACES OF OPPORTUNISM

Most landscapes require resources of some kind to ensure control and administration to keep them in operation. When these resources weaken or are redirected, other forces have the ability to take hold. In most cases, we can consider these forces as ‘opportunistic’. It is also typically these opportunistic forces that both aid in the degeneration of previous structure and the re-scripting of a place based on some new series of structural rules that integrate with whatever previous structure is remaining. The easiest examples of this come in the form of ecological re-scripting, (e.g. plants overtaking a site that is not maintained, Fig. 1) but there are also social example of this as well. Take for example a neighborhood that has lost a large number of commercial corner structures. These vacant corner parcels are quickly striped through with walking paths from residents cutting the corners of the lots (Fig. 2). This system is still controlled by the structures that remain, but does not possess enough control to prevent the social opportunism of residents looking for a shortcut.

With the concept of opportunism comes the idea of invasibility. The idea of invasibility is typically defined ecologically as “the susceptibility of an



Figure 1: Opportunistic vegetation overtaking ore walls at Steelworkers Park in Chicago. Photo: by Author



Figure 2: Corner lot shortcuts due to vacancy represent social opportunism in the transitional urban landscape. Photo: Google Earth

environment to a new species”². It has also been suggested that one of the most important characteristics in defining invisibility is the fluctuating nature of resources within the environment³. It is not a far stretch to imagine the loss of jobs or taxes (resources) leading to the urban condition that permitted various types of social opportunism like the corner cut-throughs (or vandalism, or a community land bank, or a mow-to-own program). It is generally thought that low levels of invisibility are somehow preferable to high levels, especially if control is your primary agenda. However, we should consider, particularly in this conversation around transitional urban land, that both opportunism and invisibility could be useful strategies for designed engagement. Opportunism is dependent upon invisibility, so we could seemingly leverage this relationship in two possible ways. The first would be to initiate change by either finding or mobilizing new opportunistic forces that engage an existing context in an opportunistic way. For example, a species of tree was planted that only grew in railroad ballast, with the intention of it

spreading across the city along the rail lines. The second strategy would be the modification of context to change how invisible a particular place is to a specific opportunistic force. The project example that follows attempts to illuminate this second possibility.

The use of the opportunism of ecological forces by way of invisibility modification will be described with project undertaken by the author. This project occurred from 2013 to 2015 and constituted a landscape masterplan for a campus of post-industrial grain silos. This is a region with incredible cultural baggage, as the surrounding silos are what inspired Reyner Banham to write his famous book *Concrete Atlantis* and brings droves of tourists to see these massive unused structures. Many have written about these behemoths so it should suffice to state that they provide a powerful and ever-present context. The landscape that ties all of the silos together is highly nondescript (at least to a lay person) with a standard collection of weeds, piles and defunct railroad lines.

The landscape design strategy here was simple, particularly considering the lack of budget and skilled construction trades. The first step was to connect the most visited areas by way of a logical path network and to generate gateways of various kinds to provide some sense of wayfinding. The second, and arguably more innovative part of the project, was to find a way where vegetation could serve as the identity and foreground of the site, giving the hulking concrete structures a wild botanic base that was both contextually aware and organized. To achieve this, the strategy was derived from studies of the site itself. The soil on the site was quite disturbed. Most of the site was also covered by a range of spontaneous plants including mugwort (*Artemisia vulgaris*), common reed (*Phragmites australis*), Japanese Knotweed (*Polygonum cuspidatum*), and cottonwood trees (*Populus deltoids*). At first glance these species looked scattered around randomly, but after longer observations it became clear that the plants were self-organizing based on soil and hydrological conditions. Figure 3 shows a view of the site where a row of poplar trees set at the lowest and wettest location within a drainage ditch, phragmites are established in the sunny south side of the trees in the slightly drier areas and mugwort is present in the upland areas. These species organized themselves in clear straight lines based on nothing more than the presence of a ditch. With this knowledge, and no real planting budget, the design became nothing more than the creation of ridges and ditches for plants to opportunistically occupy in an organized fashion (Fig. 4).

Choreographing this dance between opportunistic forces and former structure within these transitional urban landscape describes a cost-effective and contextual way of designing a site that takes its continually transforming nature into consideration as an actor. Design of this kind is ideal in environments where opportunistic site fluctuations are the most active and evident systems, as is the case in many post-industrial landscapes.

LAGSCAPES

At this point it might be beneficial to unpack this relationship between context and opportunism. When thinking about post-industrial urban landscapes, it could be helpful to illuminate them in terms of lag. Lag is defined here as the difference between input and the result of that input. It is typically thought



Figure 3: Layered opportunistic vegetation establishment based on existing topography and hydrology. Photo: by Author



Figure 4: Section showing access paths and ditch/ridge landscape for vegetation dispersal. Image: by Author

of as a measurement of time between these two events. In particular processes (like urban transformation) however, lag can be considered an actual actor, generating physical space.

The process of planning hopes to define most sites based on some singular or collection of direct agendas (e.g. parking lot, rain garden, nature preserve). Unintended consequences are mitigated if possible and other contextual forces are either ignored or are forced to substantiate the desired direct agendas. In an existence of ever-changing events and systems, direct agendas take time and resources to maintain. Very seldom is a place what we want it to be, over a long period of time, without some level of maintenance or control. One way of understanding these places and systems is by inspecting the lag between resource input and resultant change (Figure 5). We can think of this as the relationship between resources and resultant structure (as structure is typically the change we are attempting to produce). Take a house for example. There is a lag between the procurement of a loan (resources) and the construction of the house. This process is initiated by a direct agenda to construct the house, thus this lag is typically short and the physical condition of this phase is a busy construction site, using the loan to construct the home. We can think of this as positive lag (+lag in the diagram). This process also happens within a context to be abated or addressed; say for

example within an environment of heavy rains and a prolific ant population. Resources are also spent in mitigating these contextual factors. You see some ants in the kitchen, you call the exterminator and they are quickly removed – until of course the next time you see some ants. The same could be said for the leak you see in the ceiling. It takes continual resources to maintain the direct agenda within a shifting context and these generate a series of small lag pulses associated with maintenance (maintenance pulses in the diagram). This system has been described by Howard Odum as a “pulsing paradigm”⁴. There is a desire for the system to equalize itself, either on its own or with our input – lag does not stick around forever. Resources provide structure and ideally the structure provides the resources for maintenance of that structure. Making things, producing structure, maintaining systems, all with readily available funds is where we as designers like to be. We can equalize positive lag very quickly. Ultimately however, all natural systems desire an eventual equalization, or as Eric Schneider puts it “nature abhors a gradient”⁵.

On the other side of this process is the other form of lag. This lag is the difference between resources in structure in the inverse relationship. Here the structure that remains from a direct agenda is no longer supported by resources. We can consider this negative lag (-lag in the diagram). In our house example, the owners lose their jobs and are forced to foreclose on the home. It was additionally over-valued for the market and thus stood vacant for several years, without maintenance. The house (structure) is still there, but without resources to pay the exterminator or fix the roof, it quickly becomes a wet, luxury resort for the ants.

This condition of negative lag is more difficult to engage as designers. Without resources to initiate change, the equalization of the system generally comes in the form of entropic decay and eventual dissolution. ‘Nature’ does the work for us. Without any intervention, our example home would eventually rot away to nothing identifiable as a home. At this point the site has become equalized with the forces that now control it, such as ecological and meteorological forces. This period of negative lag is slow, and typically in the urban environment, never fully equalizes before anthropological interests breathe new life into a particular place. For example, a developer could purchase the house from the bank before it is completely destroyed. Another example might be the identification of the remaining structure on a site as ‘ruins’ thus generating some kind of present day value based on a previous or failed agenda. The idea of ruins is complex, particularly as it relates to the processes of continuous change this text highlights, however the ideas of memory and nostalgia do form powerful arguments and their potential should be explored in more detail within landscapes of this type.

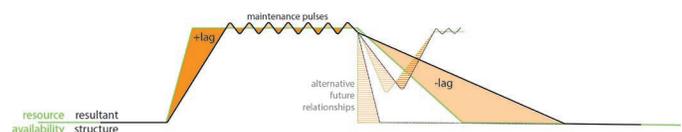


Figure 5: Graph showing when and how types of lag form on an idealized urban site. Image: by Author

NOSTALGIA'S NOSTALGIA AND THE FUTURE OF URBAN LANDSCAPES

As mentioned, one of the physical products of negative lag is the resultant, unsupported structure of some previous agenda. Put another way – ruins. With these ruins comes memory and history that not only index but project ideas of the past. Reaching consensus on how to address these physical conditions is perhaps one of the most difficult tasks in working within transitional urban landscapes, thanks in part to the nostalgic associations many of these places carry.

These nostalgic reactions can reach far beyond memory; meaning that one does not need to possess active memories of something to be nostalgic about it. In this way, one can be nostalgic about several time periods at once. This is true because the process of nostalgia is more a product of time than one of memory. More specifically, Harvard Professor Svetlana Boym states “the nostalgic feels stifled by the conventional confines of time and space”⁶. Nostalgia is defiant to the idea that time is irreversibly passing. This way of thinking leads to the misguided and delusional agendas of ‘restoration’ in many fields including ecology, architecture and landscape architecture. Of course when mixed with politics, ideas of restoration can become quickly volatile, which is why the addressing of ruins becomes so contentious.

Boym describes two types of nostalgia. The first is one based on the ideas of restoration mentioned above. The goal here is to recreate something that supposedly existed in the past. But one has to ask which or whose past are we working toward? On any given site, one could think longingly about the plight of the first nation tribes that once lived there, or the forest that grew there before clear-cutting, or the industry that no longer is viable. How do we choose? If we look hard enough (or are just diligent/stubborn enough) we could likely find first nation artifacts, an old growth forest patch, endangered insects, abandoned manufacturing infrastructure and remnants of a squatters tent, all on the same site. In this case, we would likely overlook all of the indicators that did not align with our master narrative of the past and simply prop up the pieces that we find nostalgically valuable. ‘Uplights on the rusty thing’ might be the most common strategy we are subjected to in our present-day post-industrial condition. However this is changing as well, and one could imagine a time when the nostalgia associated with Detroit is not one that longs for the auto industry and manufacturing, but instead one that remembers a lightly-populated green metropolis that served as the basis for entrepreneurship and innovation, or a longing for the urban emptiness that a city like Detroit might provide.

The other type of nostalgia outlined by Boym is one that remains reflective; one that takes advantage of the rich histories and memories in a way that is inclusive and possibly even humorous. The question here is what history can do for the future, not how the future can be more like the past. Using this line of thinking, the transitional urban landscape provides an opportunity to not just embrace the volatile dance of change and history, but to utilize it. Speaking about our attitude to ecological change, Mark Davis states “We need to operate somewhere between passively accepting the inevitability of change and obsessively trying to preserve the world as we have known it”⁷.

This point (like all points) in history is fleeting. This is a moment where the scripting power of opportunistic forces can now be seen and possibly appreciated in our cities (particularly around the Great Lakes Basin). A moment where multiple histories and agendas have collided and we are still unsure what future we should advocate for. The lagscape provides a rare forum for innovation and for the development of ideas that come by way of novel concoctions of place, ideas and forces presently unimaginable. This moment should not be wasted. Things are changing, and we have to deal with it.

ENDNOTES

1. Mark Davis, *Invasion Biology*, (New York: Oxford, 2009), 183
2. W.M. Lonsdale, “Global patterns of plant invasions and the concept of invasibility,” *Ecology* 80 (1999), 1522-1536
3. Mark Davis, J. Grime, and K. Thompson, “Fluctuating resources in plant communities: a general theory of invasibility,” *Journal of Ecology* 88 (2000), 528-534
4. H.T. Odum and E.C. Odum, *A Prosperous Way Down: Principles and Policies*, (Boulder: University of Colorado Press, 2001), 77-90
5. E.D. Schneider and D. Sagan, *Into the Cool: Energy Flow, Thermodynamics and Life*. (Chicago: University of Chicago Press, 2005)
6. Svetlana Boym, “Nostalgia and its Discontents,” *Hedgehog Review* 9 (2007),9
7. Mark Davis, *Invasion Biology*, (New York: Oxford, 2009), 188