Mallopoly: A Game of Building Agglomeration

In an interview with one of Toronto's leading newspapers, real estate investor Michael Kitt likens the future role of shopping centers in Toronto to that of a city-state.[1] While planners and designers in the U.S. celebrate the supposed death of regional malls, in Toronto they perform as centers to a multi-nodal regional form. Hardly on their deathbed, Malls here continue to expand and attract buildings to gang up around them.

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INTRODUCTION

Poly-centered metropolitan areas read like a board game. Downtown cores are the Boardwalks and Park Places of this game, mall-centered edge cities, are more akin to St. Charles Place, or Marvin Gardens, while empty interchanges with a big box or gas station are the bottom rung, Baltic or Mediterranean Avenues. One could play to win this game of territorial form by building fast on cheap properties in an effort to earn points early, or one could save for higher density, transit accessible sites. While spread out cities are often thought of as disordered sprawl, when viewed through the lens of a game, a logic emerges that we argue may be leveraged to produce moments of figural and social collectivity that can be defined within what appears to be an otherwise individualized landscape of Toronto's contemporary suburban space. This potential form reads as a series of open figures, or aggregations that are broadly legible, yet loosely defined so as to afford different readings for diverse publics. This research takes the game as a metaphor for understanding and projecting alternate futures for Toronto's dispersed urban space.

A BRIEF HISTORY OF OPEN FIGURES, FLOATING OBJECTS AND DISPERSED URBAN FORM

With the early phases of North American urban dispersal buildings seemed to repel each other with maximum entropy producing a scattered urban form. Car use obviated the need for physical coherence between buildings, helping to produce a built form that spread out like confetti (figure 2a). Over the last thirty years, though, buildings have clumped together, gathering around significant structures such as malls. What has long been lamented as an amorphous landscape of loose objects and self interest, now shows signs of figural order and moments of collaborative organization. This research speculates that such voluntary collectivism[2] offers architects cause to reevaluate contemporary theories on urban architecture and market-based urbanization.
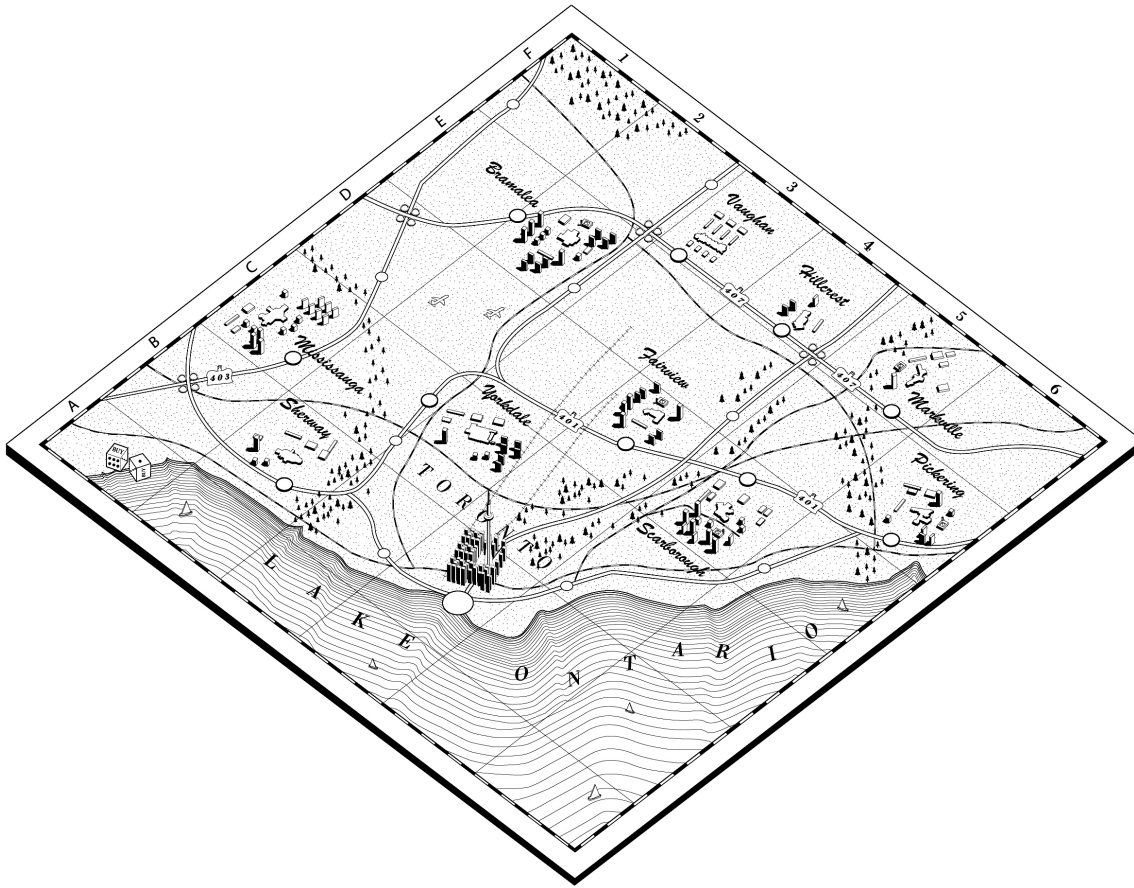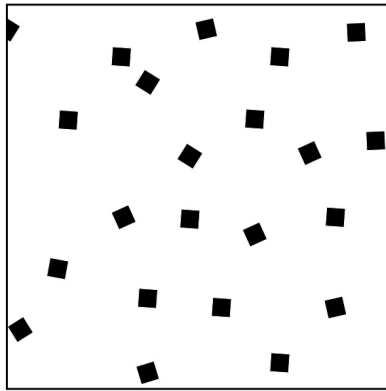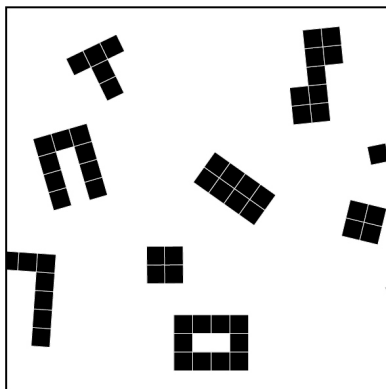
NO FIGURES

Rem Koolhaas' essay on Atlanta describes the city as a spread out landscape, pock-marked with very large, introverted structures, such as malls, that are dissociated from their immediate physical surroundings and from a legible organization of the city. Photos of Atlanta are scattered randomly across the pages of the book with ample space in between them, a kind of graphic metaphor for a city made of stand-alone buildings.[3]

Paralleling the physical separation, his account of the profession is one where architects work behind closed doors. They do projects for different developers, cordoning off their efforts from one another in a type of competition that mirrors the game of real estate that they operate within. By this account there is no figure for urbanized areas, just a landscape with buildings scattered randomly about (figure 2a), created by design professionals who never speak to one another. Accepting these realities, Koolhaas extracted theories and techniques from cities like Atlanta that show a potential for very large, detached buildings to stand in for more traditional ideas of urbanity; to perform as a kind of urban architecture. When considered relative to Koolhaas' observations on the contemporary city, projects such as OMA's Seattle Library, CCTV Headquarters or Tres Grand Biblioteque can be understood as such an architecture: inward-oriented containers of quasi-public space that operate within the "dirty realities" of market-driven city building.
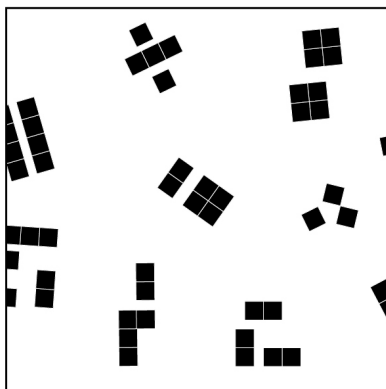
Figure 1: *Mallopoly: Game Board of Toronto*

2a - No Figure

2b - Closed Figure

2c - Open figure

Figure 2: *Three Kinds of Territorial Figures*

CLOSED FIGURES

In 1977 O.M. Ungers published The City in the City: Berlin as a Green Archipelago.[4] The project is both pragmatic, as a proposal that accepts the shrinking population of Berlin as a condition to design for,[5] and idealistic as it inscribes an artificial edge that groups buildings into well defined islands. Their drawings depict a city of discreet islands that scatter across the space of the city (figure 2b).

In recent years, this project has inspired speculative practitioners who propose the idea of absolute forms, or closed figures. Both Pier Vittorio Aureli and Alexander d'Hooghe adopt the idea of the island, that is, a finite or delimited urban figure that is set apart from the a seemingly limitless space of market-based urbanization. While similar in principal, their respective formal definitions of the island differ. For Aureli, it is a generic composition of repetitive building types set within a regular geometry. When transposing the idea to America, d'Hooghe redefines the island as the group,[6] which he describes as a composition of competing objects that formally parallel the ambition for a plurality that would appeal to the diversifying groups that constitute a contemporary public body. Although diverse due to their variety, these objects are contained on a platform, a limited edge that creates a single object, or island of the different objects within. For both Aureli and d'Hooghe this definitive or closed form has become a corollary for the collective ambitions of liberal politics, a distinctive element that stands against market-based urbanization. This research proposes to uncouple this association in order to explore the potential for collective figuration without the limiting edges of a closed figure.

AGGLOMERATION

No-figure and closed figure projects share a similar reading of urbanization. Aureli describes it with an account of Cerda's plan for Barcelona. Urbanization is continuous and expansive machine that facilitates economic production, lacking in the kind of definition that enables inhabitants to locate civic space. His description of urbanization, resembles the amorphous landscape that Koolhaas sees in Atlanta.

At about the same time that the Atlanta essay was published in SMLXL (1994), Joel Garreau uses this city as a case study in his book *Edge City (1991),* an account of built up clusters that have emerged around the periphery of cities. Located at the intersection of highways and arterial roads, Edge Cities are aggregates of buildings that are centered around malls.[7] Development is drawn to the firms, residential density and ammenities at these sites, a benefit of density also known as economies of agglomeration.[8]

If Koolhaas' account of Atlanta implies a fragmented context of competing self interest where pragmatic architects work in isolation, then Garreau's book describes the same place as having moments of emergent formal order, mutual benefit[9] and quasi-planned collectivity. In the hands of a designer, Garreau's account of urban regions allows for the projection of well formed urban futures that are not necessarily an affront to market-based urbanization, but rather can be understood as an engaged process of radical reconfiguration, an act that merges pragmatism and fantasy.

OPEN FIGURES

For many architects after the 1970s, the physical complexity of modern dispersed cities would preclude thinking about urban form. Architecture would turn

toward other types of analysis or would take complexity as an end in itself.[10] With Learning From Las Vegas (1973), Venturi and Scott Brown popularized an empirical urbanism that trained the practice toward observation and pragmatic analysis of cities as an array of communicative surfaces. About thirty years later O.M. Ungers' book Dialectical City (1997) recharacterizes complexity, not as a condition to fix, nor as one to describe, but as something to "halfway" make sense of.

"All urban planning is concerned mainly with bringing order into an empirical structure born of accident…. of integrating what are at times mutually exclusive urban situations into a rational system or halfway logical strategy". [11]

This research takes this idea of the "halfway logical strategy" as a starting point for understanding the loose association of built up areas around malls. The potential form of these sites may be understood as open figures (figure 2c), or clusters of distinct yet associated free standing object buildings. Working with open figures is not a purely rational approach, in the sense of resolving all contradictions into a closed system, but seeks open associations between complementary elements, and formal clarity from apparently contradictory things.

Unger's proposal for the Royale Porcelain Factory (KPM) is an addition of new buildings (shown in figure 3 in dark grey) to a series of misaligned existing objects (shown in light grey). Rather than try to normalize the different buildings into a singular coherent system, his design adds new objects as complementary elements. Each new building establishes a distinct relationship with one or more existing conditions. The overall design is less of a montage of distinct parts, and more of a compositional strategy of multiple overlapping relationships. For example, the new building addition on the west wing of the Ernst Reuter Haus (bottom left of the plan), complements the scale and shape of the existing building, but is detached from it. The face of this addition is the same dimension as a series of object buildings that array along the street it faces. In this way, the addition has two simultaneous relationships with two distinct formal systems. The additions work to tie together these distinct pieces while allowing them to retain their autonomy. This kind of layering of multiple organizational strategies, is distinct from those layering techniques as invented by Ian McHarg[12], and popularized by Koolhaas. The intention is not to overlay conflicting systems and allow the disparities to stand, but rather to use design as a way to make sense of and create associations between different layers. As a distinct urban figure composed of formal relationships between independent parts, this open figuration is legible among the broader landscape of the city, yet discursive and inclusive in its composition.

PLURALISM

Like d'Hooghe's idea of the group, the open figure is composed of distinct elements and so sponsors a more pluralistic reading. However, as a ground-up proposal, the group takes difference as a compositional ambition. That is, the form of diversity is intended to serve a desire for pluralism. Alternatively, the open figure is imagined as a strategy of augmentation that produces legible collective forms by adding new buildings to seemingly disparate existing objects. The ambition of the open figure is less to create difference, complexity, or pluralism, but rather to leverage differences toward a more collective or coherent shape. To this end, the observation based urbanisms - such as those of Venturi and Scott Brown that formally minded designers such as d'Hooghe seem compelled to debunk[13] - can be understood to serve a purpose of deciphering latent formal order that may be augmented to create the kinds figurations to which the proponents of closed
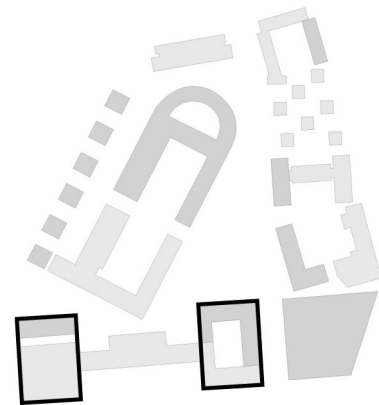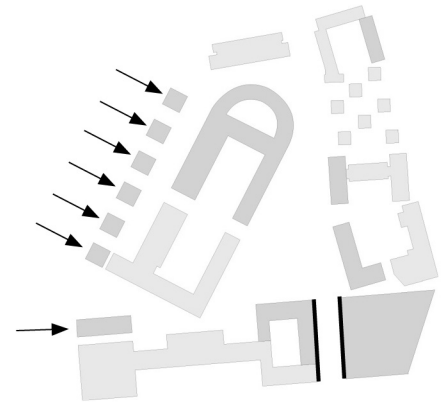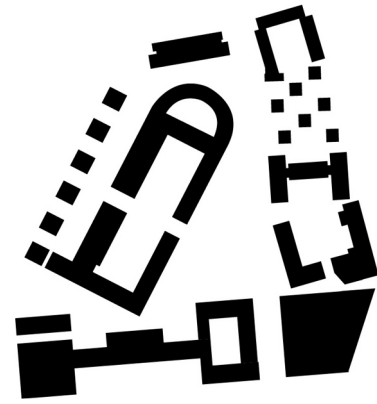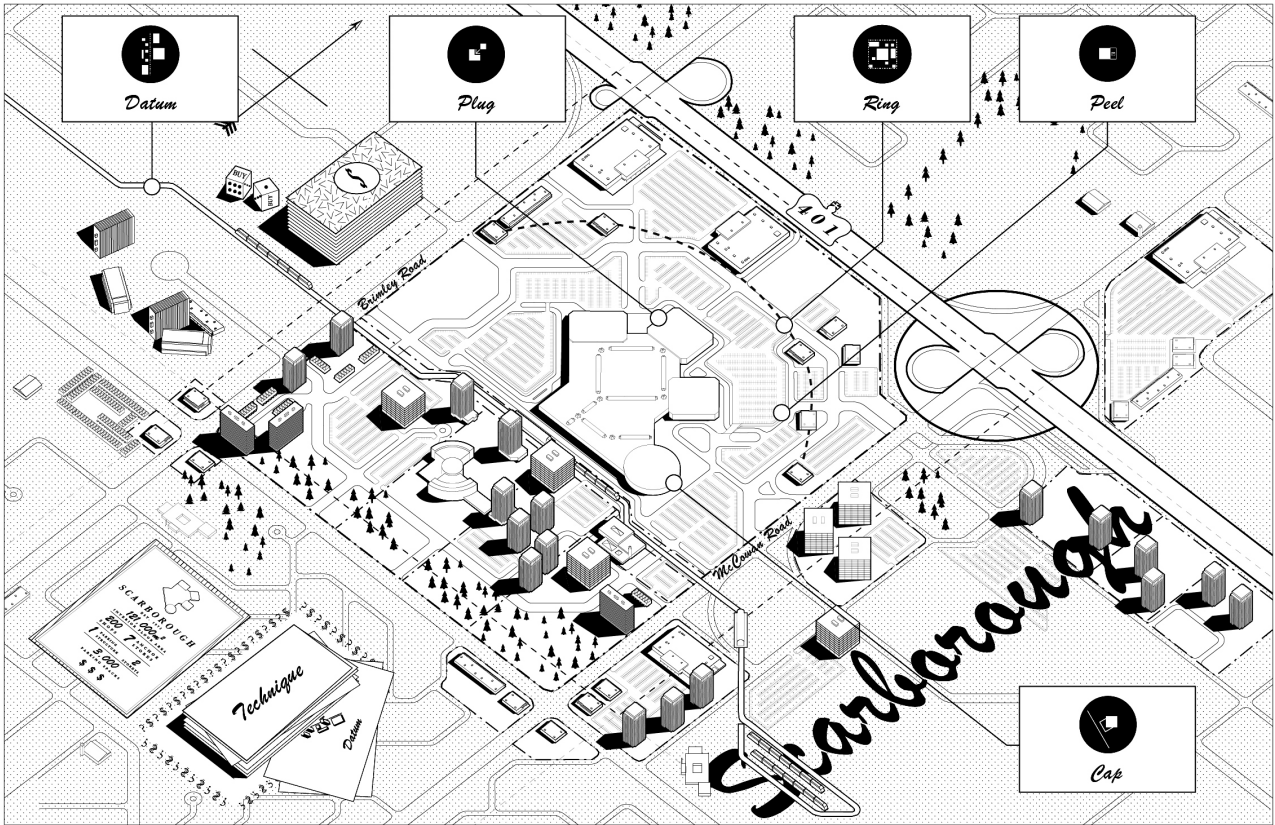

Figure 3: O.M. Ungers, Royale Porcelain Factory (KPM), Berlin, 1993, *Diagrams of Open Figure*

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form aspire. This is not to suggest that the discipline lapse back to the discursive group of urbanisms that proliferated between the 1970s and early 2000s, but rather, that urbanism evolve as a practice, toward methods of observation that link more directly to design projection. To this end, we propose *Mallopoly* as a fictional method of observation that enables design action by abstracting analysis into mutable game-like scenarios.

THE GAME

The open figures of dispersed urban areas might best be described by thinking of them as the product of a game (figure 4).[14] Such places are not designed by a single fixed plan, but rather are the product of multiple individuals placing standard building types according to a set of rules.[15] The resultant form, reads as an aggregate of loose objects that appear to have been placed over time with a maximum amount of spacing in between. These aggregates are a kind of open figuration. They lack definitive edges, connectivity between buildings, and material and textural continuity between objects. Due to these deficiencies, there is now a desire to change the rules of the game, and to impose a kind of perimeter block, closed figural organization that resembles a traditional city center. As an alternative to changing the rules of the game, we propose to modify the rules as they exist.

To this end, the research here recreates a fictional set of rules that describe emergent open figures throughout the Toronto area. At first the game is used for description, in order to speculate on how these places work (figure 4). The fiction of the game provides a projective mode of analysis that abstracts reality into scenarios that can be understood as having any number of outcomes. By speculating on game's rules, the intent is to de-naturalize the present condition

Figure 4: *Game Scenario at Scarborough Town Center*

of metro-areas in order to bring their underlying logics to light and to suggest the potential for designers to rework these rules that govern their shape.

These rules will then be modified in order to produce legible open figures from the loose gathering of existing objects. These new rules are currently in the making, but we expect the outcome to result in a more densely packed and spatially coherent organization of free standing objects as they currently exist (figure 5). The game is organized into sections that correspond with the components and rules of Monopoly the board game: game pieces, playing cards, game board and property cards. Whereas Monopoly's rules are quantitative in nature, based strictly on accumulation of property building and cash, the rules of this game also include qualitative methods of aggregation.

GAME PIECES

Contemporary cities are made of repetitive parts. Building types become industry norms once they are tested and proven, then risk averse developers repeat them until their market is full.[16] These typical buildings can be thought of as pieces to the game of territorial form making. Architects don't invent a new building for each site from scratch, but, for reasons of economy, select from a series of generic types. This desire to maintain the purest form of a type is arguably a significant reason that buildings are designed as objects with space in between them. The separation allows a designer to drop a standard type on a site, like a game piece, without significant modification, keeping design and construction costs down.

In reality, the problem with imposing closed figuration, or compacted building form on quasi-dense mall sites, is that it undermines many of the economic incentives that made these sites viable for development in the first place. Toronto has had some success in drawing compact urban form to these sites, but has failed to attract some of the more vital forms of commercial development, such as office space and big box.[17] Rather, such car-reliant object buildings are scattered along to more open sites.

As an alternative to introducing foreign types of closed figuration, we propose to augment the existing open formal order as a means to create legible definition and greater densities for open sites. Figure 5 shows a proposal for propogating standard free-standing types in a denser configuration. Another point of intervention would be in reworking the generic building types (game pieces), reimaging the buildilngs so that they might offer alternative values in sites of increasing density. Moreover, the opportunity for design intervention lies less in the radical production of new urban forms, but rather in the placement of predefined types. To this end, a point of engagement for architects is in understanding the rules and techniques of object aggregation and identifying opportunities for modifying such rules.

TECHNIQUES OF AGGREGATION

Although the buildings that gather up around mall sites are not that interesting, the techniques by which they aggregate offer ways to understand an aesthetic logic to the group form of these places. This form does not have a singularly legible composition, but rather is the overlay of several relational techniques. The co-presence of these logics doesn't necessarily make for a completely legible urban figure, but does offer a way to imagine alternative futures for them. We analyzed ten mall sites in Toronto and extracted nine techniques.
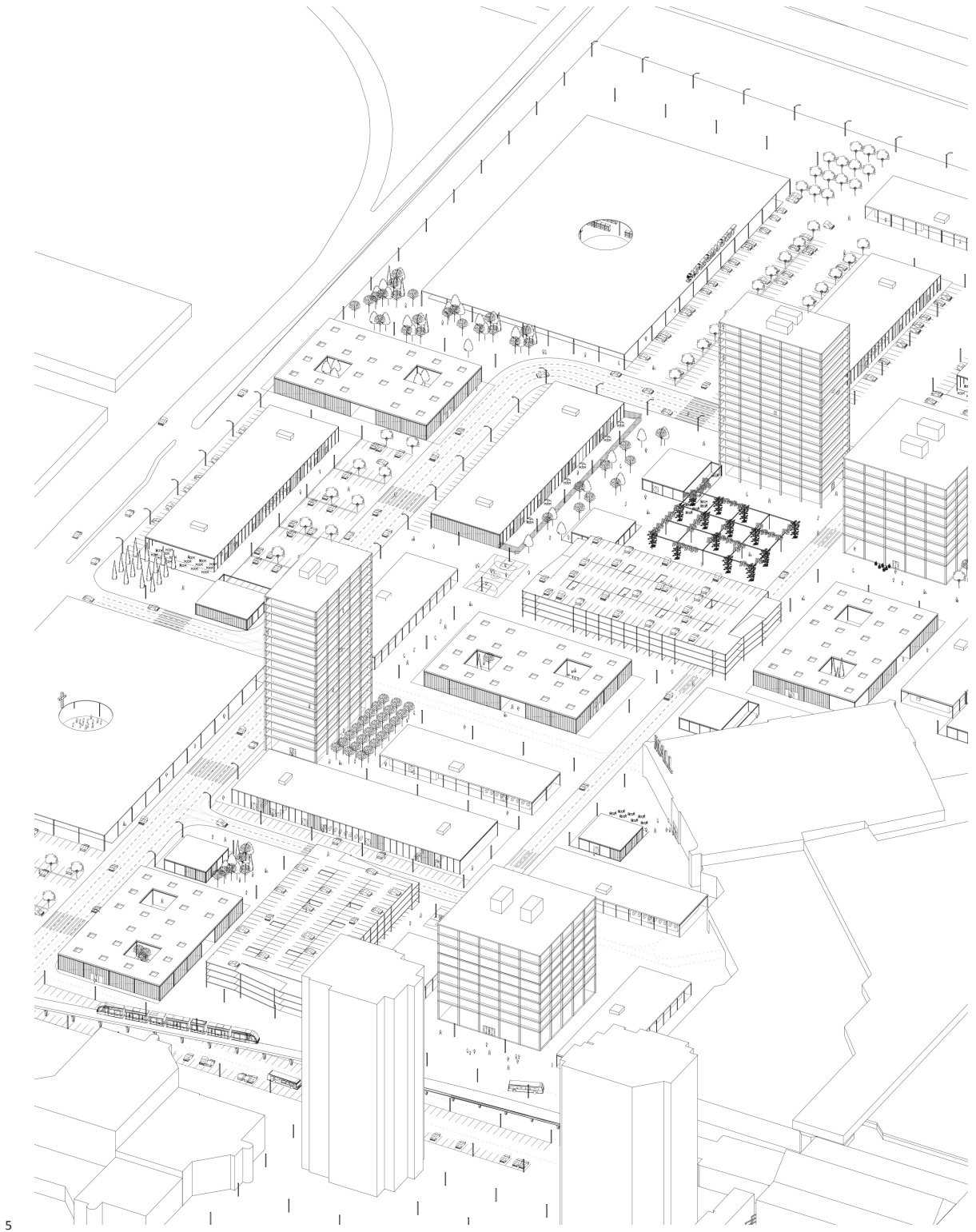
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Figure 5: *Crowding Scarborough*. Studio project by
Zoe Renaud-Drouin, Instructor Michael Piper, 2014.

Just as building types repeat from mall to mall, so too do their disposition and site organization. Outparcel small box restaurants almost always array along an arch around malls, office towers usually stand in the corner of mall parking lots fronting a street, and strip malls tend to mirror across arterial roads. These techniques are all mall-centric, that is, the mall is always the strong figure in the relationship. Due to its very big size, and also to the fact that they were built first, we describe a series of techniques for how buildings or additions relate to it.

We imagine these techniques as modifiers for building placement in our imaginary game, a parallel to monopoly's chance and community chest cards that change the normal path of play. Technique cards would require a player to create certain spatial relationships through building arrangements. The cards would require that players not just accumulate buildings, but rather to place buildings with good intent.

Beyond the fiction of the game, we propose the idea of these techniques to operate as an alternative type of formal zoning regulation for how to add buildings to existing low to moderate density sites. Rather than default to perimeter blocks, these techniques would allow designers to imagine strategic figural arrangements that operate with the open organization of existing sites.

THE GAME BOARD

With such a game, the highway is a path that a player travels along, and the interchanges are spots that she lands on to play. Like properties in a Monopoly game, interchanges would have a range of values. For the case of *Mallopoly*, value would be determined by existing density and transit; dense sites with transit access have a higher value, but are more costly to build on; unbuilt sites with only car access are typically lower value and cheaper to build on. Property value difference is a primary variable that informs different ways of playing Monopoly, some players save to buy Boardwalk, while others spend thriftily on Baltic Avenue.

The game board provides a way to understand how the economies and diseconomies of agglomeration draw different kinds of development to varied locations. As Ebenezer Howard describes, urban dispersal is a product of property value difference, that is, cheaper land made accessible by rapid modes of transit.[18] In contemporary cities, these economies not only contribute toward dispersal from downtown cores to edge city sites, but now, as edge cities densify, they also promote dispersal of building development from edge cities, to other empty sites further along the highway, what Robert Lang describes as edgeless cities.[19] Understood in this way, territorial form cannot be described as a series of closed figures, but rather as a network of variably scaled, loosely bounded areas, that draw new development according to economic and aspirational desire. This is not to suggest an amorphous city of indeterminate flows, but rather to acknowledge that any effort to control territorial form must come to terms with variability and change. The idea of the open figure allows for figural definition, without the burden of inscribing permanent shape.

In Toronto, the city has sought to promote building projects around malls (a.k.a. growth centers). There has been some success in increasing the density of such sites, but there are infrastructural and economic limits to how much one can

ENDNOTES

1   In an article in Toronto's Globe and Mail Brenda Dalgashi quotes developer Michael Kitt and his observation of malls in Toronto as city states. Dalglish, Brenda (2014, June 16). Next role for the shopping mall: city state. The Globe and Mail. Retrieved from: - http://www.theglobeandmail.com/report-on-business/industry-news/property-report/next-role-for-the-shopping-mall-city-state/article19186358/

2   In Mutual Aid: A Factor of Evolution (1902), Peter Kropotkin offers an alternative model of evolution where survival is determined by mutually beneficial acts of collaboration. By this logic, collectivity is less a mandate and more a voluntary act.

3   Koolhaas, Rem, and Bruce Mau. "SMLXL." New York: Ed. Monacelli (1995). 832-860

4   The project was originally published in German as Die Stadt in der Stadt.

5   The first line from the original transcript from the project "The City in the City: Berlin: A Green Archipelago" describes that any project for Berlin would have to be a project about retrenchment. Hertweck, Sebastien. The City in the City: Berlin: A Green Archipelago. Zurich, Lars Muller Publishers, 2013.

6   D'Hooghe coopts the idea of The Group, as initially proposed by Sigfried Gideon Alberto Giacometti, and Fumihiko Maki.

7   Joel Garreau describes Edge Cities in physical terms as groups of buidlings centered around a mall, next to a highway. Garreau, Joel. Edge city: Life on the new frontier. Random House LLC, 2011.

8   Urban agglomeration is the spatial concentration of economic activity in cities. From The New Palgrave Dictionary of Economics, Second Edition, 2008

9   See End note 2.

10   Robert Venturi first wrote Complexity and Contradiciton, suggesting that architecture embrace complexity of form rather than suppress it. Then with Learning From Las Vegas (with Denise Scott Brown and Steven Izenour), they abandon form for surface as a medium for observing and intervening on in dispersed areas.

11 Ungers, Oswald Mathias, and Stefan Vieths. The Dialectic City. Milan: Skira editore, 1997. 18-19

12 In Design With Nature, McHarg develops a method of analysis in which different ecological conditions are mapped in isolation and then overlaid. The resulting overlay, it is argued, describes potential for design. McHarg, Ian L., and Lewis Mumford. Design with nature. New York: American Museum of Natural History, 1969.

13 In issue 9 of Volume, Suburbia After the Crash, (pp 42-48), D'Hooghe poses his conception of of top-down Monumentality as a counterpoint to practices that investigate bottom-up ideas of the Everyday, or Complexity. Our proposal for an Open Figure suggests that this distinction is artifical and limiting.

14 James Corner describes the game board as a thematic mapping tool, a shared work surface on which several constituencies may participate. Corner, James. The agency of mapping: Speculation, critique and invention. na, 1999. In Denis Cosgrove, Mappings. Reaktion books, 1999. 239-240

15 In Grand Urban Rules Alex Lehnerer describe countless rules and regulations for taken from a variety contexts. The book exposes the underlying rules that govern what seems to be spontaneous urban space. Lehnerer, Alex. Grand urban rules. 010 Publishers, 2009.

16 Dana Cuff and Roger Sherman describe the idea of radical instrumentalism, or the idea of building on real the tendency of real estate to repeat proven development models. Cuff, Dana, and Roger Sherman. Fast-forward urbanism: rethinking architecture's engagement with the city. Princeton Architectural Press, 2011. 25

17 In this article published by Neptis, a non profit that publishes research on metropolitan regions, Ron Buliung describes the emergence of power centers, clusters of big boxes, and the draw of commercial development away from growth centers to alternative locations. Retrieved from: http://www.neptis.org/sites/default/files/toronto_metropolitan_region_places_to_shop_places_to_grow/places_to_shop_web_20090428_0.pdf

18 Ebenezer Howard first identified this coupling of factors in Garden Cities of Tormorrow - that property at the periphery could be developed more cheaply than on dense and cluttered sites of the city center. The cost savings would then contribute toward the transit infrastructure that would access these remote areas

19 Robert Lang describes leapfrogging as the skipping of development from dense areas to less dense areas where land is cheaper. This draw is responsible for a renewed dispersal of office development in the last ten years, what he calls Edgeless Cities. Lang, Robert. Edgeless cities: Exploring the elusive metropolis. Brookings Institution Press, 2003.

20 Benda Case Sheer describes the physical limits to edge city growth: too much space to densify adequately, and too little infrastructure to serve downtown-like density. Scheer, Brenda Case, and Mintcho Petkov. "Edge city morphology: A comparison of commercial centers." Journal of the American Planning Association 64.3 (1998). 308

21 This article published by Neptis describes growth centers in Toronto. On pages 54-56, there is an account of office development and the tendency for office space to migrate away from growth centers toward, toward easy to access highway interchanges. - http://www.neptis.org/sites/default/files/nodes_and_corridors/filion_electronic_report_20070528.pdf

build there.[20] For example, office development tends to leapfrog to vacant, car accessible locations along the highway.[21] Most maps that project regional design for Toronto, focus on its growth centers. By modeling the shifting values and dynamic forms of growth centers, along with other variably scaled sites, planners and designers may be better able to effect their future. We argue that in order to plan for the future of any individual growth center, mall node or offramp site; that it is first necessary to consider the balance of these sites in total. Rather than allow anything to happen anywhere, a new form of dynamic and responsive planning is likely to emerge.

SPRAWL – OPEN FORM

If this game of malls is a realist parallel for urban development, then the rules of the game can be understood as the underlying controls and regulations that can be modified to propose more idealized versions of civically, oriented territorial form. Its not that contemporary urban areas are ok as they exist, but that in order to propose legible figuration for them, it would serve architects well to more precisely understand their current state of formal order. What has long been understood as sprawl might better be described as a latent potential for an open kind of form.

(The idea of this paper was initially conceived in collaboration with Roberto Damiani. Illustrations were made by Emma Dunn, Rachel Heighway, Salome Nikuradze and Zoe Renaud Drouin).