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The Regional Exchange: From Main Street to Shopping Mall to App Info-Structure

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Syracuse University Bachelor of Architecture Thesis
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Architecture and planning are devoted to creating the built environment, yet in the past fifty years, architects have confined themselves to creating signature buildings, and planners have rebuilt downtowns or renewed historic city centers that fewer and fewer people have wanted to, or could afford to, live and work in. Where were architecture and planning when suburbia was first built out? And where was planning when interstate highways pushed through residential neighborhoods, and when the needs of new suburbs, aging downtowns, and regional landscapes conflicted with one another and required reconciliation?

Alex Wall, Victor Gruen: From Urban Shop to New City, 2006
Introduction

Regional Spatial Organizers: Defining the Regional Exchange

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Flipping the Switch: The Design of App Info-Structure

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Bibliography
The heart of our existence lies within regions. Loosely defined, these territories are defined by what we do, not by what we call them. It is where we live, work, shop and socialize, characterized by an infinite multitude of interactions with other people and environments. The concept of “regionalism” is best described as a set of overlapping factors that together characterize the shared interests and dynamics of its people and environment, whether social, cultural, ecological or something else. This dynamic, constantly-changing overlap is most apparent at the center of the region, and least so at its edges.

Regionalism is especially relevant to the application of architecture, the discipline of designing built environments. Architectural theorist, Keller Easterling proposes the theory of “Organization Space,” a framework of architecture and spatial expression which focuses not on form or geometry, but on the interrelationships, temporal components, and active parts that define a spatial system. This framework can be used to respond to complex systems and problems opportunistically in a way that conventional modes cannot. When the concept of “regionalism” is merged with the architectural qualities and potentials of “Organization Space,” the concept of the “Regional Exchange” is formed. The regional exchange provides a framework for current regional architectural nodes to evolve more responsively to lifestyle and culture. It is built environment that organizes a region and is integral to its “interests and dynamics.”

How can architects influence regional exchanges effectively? Although Regional Exchanges are constantly evolving and changing, the results of this change can be guided and controlled via what Easterling defines as “switches.” Switches are common development protocols or everyday tools, often overlooked, that influence interactivity and linkages and, if recognized and engaged, can be used opportunistically to reorganize regions. When you apply a switch to a regional exchange, a radical restructuring will result in a completely new exchange.

At the heart of small-town America, the concept of Main Street as a corridor of social activity framed by commercial buildings was arguably the first major regional exchange that defined social and commercial dynamics within the United States. The later introduction of the automobile to mainstream America served as a turning point as the car quickly became adopted and loved by the American people. Architects generally did not embrace this switch, and had little design influence as it shifted the key interests and dynamics of Main Street to the regional shopping center. This new center was essentially derived from the same elements, yet with a different organizing force.

The current switch that has now made the shopping center model vulnerable to yet another evolution is the smartphone, which, since its introduction has become an essential component to American lifestyle even more quickly than the car, changing the way in which people engage in both social and commercial activity. Unlike their response to the automobile switch, if architects can recognize and accept the smartphone as a evolutionary tool, then they can take a center role in designing the next major regional exchange. This new social and commercial regional spatial organizer is still desired to be a physical place, however it would be reorganized around the role of the smartphone in this place. It would accept the recent movement of people back to urban cores, maximize a desire for not just physical mobility but also access to information, and balance regional diversity with global demands. It would consist of a range of specialized functions, or “Apps,” that assist, enhance and adapt to everyday activities at multiple scales. If the automobile was able to shift the center of American social and commercial interests from Main Street to Shopping Mall developments, then the smartphone could serve as the switch for the next Regional Exchange: an app-based information infrastructure, an “App Info-Structure.”
This thesis synthesizes the social and commercial evolution of Main Street as a spatial organIzer within a regional organization in order to propose a way in which architects can take an active role in influencing this continuing evolution. Key to this project is that it communicates in everyday terms, although critically. Through rethinking and reorganizing these everyday terms, histories and ideas, this project aims to remain understandable and feasible, while also forward-thinking and radical through its discoveries. This argument will be built through five primary components, with the fifth consisting of an extensive design exploration. This argument will be built through five primary components, with the fifth consisting of an extensive design exploration.

The first section will define the regional exchange. It will first develop an understanding of regionalism by looking closely at Liane LaFavre and Alexander Tzonis’s Architecture of Regionalism in the Age of Globalization. This text defines regions in terms of their unique resources, constraints, and values, and they see regionalism in architecture as a means to create a world in terms of their unique resources, constraints, and values, and how switches can be used to reorganize and design new regional exchanges. Once all of the key components of the regional exchange are defined, they will be discussed in terms of the Central New York Region, as this region will serve as a means to test this argument throughout its development.

The second section seeks to define Main Street as the first regional exchange and the historical starting point for the thesis through Richard Francaviglia’s Main Street Revisited. Francaviglia discusses Main Street both as a real place and idealized image through the core frameworks of time, space, and image throughout its history. He defines Main Street, in all of its forms, as always essentially a social environment framed through time, spatial formalizations, and the historical discussion of regionalism, as well as its relation to the Central New York Region. The section will further Francaviglia’s discussion by looking at how Main Street became vulnerable to a switch: the automobile.

The third section will further Francaviglia’s historical context by discussing how Main Street evolved into the regional shopping center using the automobile as a switch. Alex Wall’s From Urban Shop to New City discusses this evolution by studying the work of Victor Gruen, who many have coined the “architect of the shopping mall.” This text will be used for its primary argument, but instead for its merit in defining the changing ways in which people live and work in the 21st century. These lifestyle changes will frame the argument for the smartphone as the new “switch.” The key qualities of the smartphone that can be used as reorganizing agents and design criteria will be outlined and critically discussed, using the theories of Melvin Webber. A case will be made for why the argument is not just about the advantage of this switch. The section will then speculate on how this switch, the design criteria defined by the smartphone, can be multiplied by the social and commercial functions of the regional shopping center to create a new regional exchange. The results of this multiplication, the Regional App Market, will then be practically defined in terms of its three primary components: regionalism, apps and markets. The section will then speculate on how this switch, the design criteria defined by the smartphone, can be multiplied by the social and commercial functions of the regional shopping center to create a new regional exchange.

The fourth section will discuss how architects can use the smartphone as the new “switch.” The smartphone, can be used as reorganizing agents and design criteria will be outlined and critically discussed, using the theories of Melvin Webber. A case will be made for why the argument is not just about the advantage of this switch. The section will then speculate on how this switch, the design criteria defined by the smartphone, can be multiplied by the social and commercial functions of the regional shopping center to create a new regional exchange.

The final section will explore the design process for this proposed exchange, the App Info-Structure, in detail. The Central New York Region and the city of Syracuse will serve as an experimental testing ground for its application.

Case studies in regional urban centers of differing scales and regional characteristics will be visited and critically discussed: Oklahoma City, OK; Pittsburgh, PA; Rochester, NY; Cooperstown, NY; Saratoga Springs, NY; and Poughkeepsie, NY. In each center, various local, regional, global nodes were visited and meetings with key planning officials. The insights and discoveries gained through this trip will be synthesized both implicitly and explicitly throughout the discussion.

This historical context of the regional exchange to discover a new switch, the “smartphone,” and use it to evolve the regional shopping center into a regional app info-structure. The section will start by looking at historical precedents that attempted to evolve the regional shopping center, yet were ineffective. Then the thesis will move into a deeper investigation towards the changing lifestyles within American culture. Richard Florida’s controversial text, The Rise of the Creative Class will be used not for its primary argument, but instead for its merit in defining the changing ways in which people live and work in the 21st century. These lifestyle changes will frame the argument for the smartphone as the new “switch.” The key qualities of the smartphone that can be used as reorganizing agents and design criteria will be outlined and critically discussed, using the theories of Melvin Webber. A case will be made for why the argument is not just about the advantage of this switch. The section will then speculate on how this switch, the design criteria defined by the smartphone, can be multiplied by the social and commercial functions of the regional shopping center to create a new regional exchange.

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**Key Terms**

**Introduction**

Regionalism: a set of overlapping factors that together describe shared interests and dynamics of its people and environment (social, cultural, ecological, etc.); this dynamic, constantly-changing overlap is most apparent at the center of the region, and least so at its edges.

Organization Space: a framework of architecture and spatial expression which focuses not on form or geometry, but instead on the interrelationships, temporal components, and active parts that define a spatial system; this framework is used to respond to complex systems and problems opportunistically in a way that conventional modes cannot.

Regional Exchange: “Regionalism” merged with the architectural qualities and potentials of “Organization Space,” providing a framework for current regional architectural nodes and centers to evolve more responsively to lifestyle and culture; a regional spatial organizer; a built environment that organizes a region and is integral to its “interests and dynamics”; the architecture at the center of the “overlap” (i.e. Main Street, Regional Shopping Center).

Switches: a component of “Organization Space”; common development protocols or everyday tools, often overlooked, that influence interactivity and linkages and can be used opportunistically to reorganize systems (regions); “terra incognita,” “wild cards” (i.e. the subdivision; the automobile).

**Main Street:** primary corridor of activity in a region; a concentrated passageway of social activity framed by commercial buildings.

**Regional Shopping Center:** a large, integrated retail complex with supporting public spaces that serves as an accessible, regional node.

**App Info-Structure:** a desired-based, information infrastructure replacing the intercity highway network. It serves as an experiment in how information networks and other virtual systems sparked by the smartphone could play a role in the design of the next regional exchange.
REGIONAL SPATIAL ORGANIZERS: DEFINING THE REGIONAL EXCHANGE
What is "Regionalism"?

In order to understand the concept of a regional exchange, first an understanding of regionalism must be developed. As stated in the introduction, regionalism is best described as a set of overlapping factors that together describe the shared interests and dynamics of its people and environment, whether social, cultural, ecological or something else. This dynamic, constantly-changing overlap is most apparent at the center of the region, and least so at its edges.8

Ethan Seltzer, Professor of Urban Studies and Planning at Portland State University, and Armando Carbonell, Department Chair of Planning and Urban Form at the Lincoln Institute of Land Policy discuss regions as "territories defined by functions and only rarely by jurisdiction." Within this abstraction, regions are defined by the activities that take place within them, not the political names given to them. We socialize in regions, shop in them, play in them, and work in them. It is where "we experience trust, community, and empowerment at a more human scale -- the block, neighborhood, or city."9 Regions work at a variety of levels to define these shared activities, and they change over time as connections between place and activity change. A set of systems that define a region at one point in time may become part of a completely different region at another. Although this may contradict with the most commonly accepted definitions of regions as we see them on maps, this type of framework more directly reflects the reality of the places in which we live, and the relationships and connections we form within these places.

In specifically trying to define this seemingly ambiguous region, Seltzer and Carbonell state that it consists of a combination of overlapping and interconnected characteristics describing relationships, whether ecological, biophysical, economic, political, social, cultural or, more commonly, a combination of all of these. However the fundamental principle in any region is its composition of "overlapping factors that together describe shared interests and dynamics." This overlap, especially when consisting of multiple factors, is "most apparent at the center of the region, and least so at its edges."10 It is through this understanding of regions that we start to see how they are less about geographic boundaries and more importantly about a shared set of interests.

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Liane Lefaivre and Alexander Tzonis, in Architecture of Regionalism in the Age of Globalization, further this dynamic and ambiguous definition of regionalism by discussing it in relation to architecture and the rise of globalization. They argue that regionalism throughout architectural history describes a set of architects who opposed standardization and universalization and tried to design in ways that specifically spoke to the unique characteristics of a certain environment. They designed in response to the cultural and lifestyle characteristics of the people who resided in a given landscape. Lefaivre and Tzonis discuss the various changing ideas of the regions throughout history: While for ancient geographers it meant an 'objective', natural' division of the earth's surface, an area defined by

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boundaries, landforms, paths, zones of vegetation, and climate, with administrative borders placed on top. By the end of the eighteenth century it had become associated with human rather than natural attributes, such as continuities and discontinuities of language, religion, ethnicity, and economy, or mental aspects significant for local people, aspects defining place, identity, Modernity, and Tradition, deduces from his study of many different architectural theorists that, similar to the previous players, regionalism “must foster connectedness to that place and be a response to the needs of local life, not in spite of global concerns and possibilities, but in order to take better advantage of them.”

He directly supports Seltzer and Carbonell’s definition for regions as dynamic not static conceptions, while also recognizing Lefaivre and Tzonis’s belief that regionalism can be used to better respond to globalization trends. His contribution to the regionalist framework is that he sees regions clearly as a “living concept.” Regional distinctions change and restructure to promote a more vibrant social and commercial life, while resisting trends of homogenization and universalization. The driving force of his region’s dynamics are the ways in which people wish to live. Vincent Canizaro’s collection includes Lewis Mumford’s thoughts on the “Regional City,” which although outdated by a few decades, is still very much relevant to the spatial quality of regions in the context of this argument. Lewis Mumford felt that a city’s size is not determined by a superficial area drawn out on a map but instead by its relations to the institutions and functions it serves, again paralleling Lefaivre and Tzonis. He believed that with modern transportation and communication, cities should not have to provide every human function but can specialize in certain skills and then be linked to other cities with different sets of skills. He believed in a regional network where no one city attempted accommodate everything but instead focused on exploiting specific strengths unique to its environment. For Mumford, this formed the basis of regional planning.1

Across these different theorists, there is a shared sense of regionalism as it pertains to a dynamic set of interests and functions, as opposed to common conceptions of geographic location. By looking at the most concentrated and visible point of this dynamic set, the regional center, one begins to speculate how architecture can begin to influence its organization and it’s effects on the lifestyle it defines.

They go on to describe the current context of globalization and how it can benefit from more regionalist thinking. Global corporations, institutions, and networks currently control the making of buildings, cities, and landscapes, and through their universalization they are destructive to the unique dynamics of regions. Globalization strives to maximize interaction and minimize resistance between regions, blurring the “distinction between center and periphery.” New transportation and communication modes, such as the Internet, make this possible, breaking down political and cultural boundaries and greatly increasing accessibility. The chief economist of the American Express Bank equates globalization with the “end of geography.” This conflict of globalization helps expose two definitive aspects of regionalism throughout history: globalization of past campaigns, but as a continuous process creating new differentiated, diversified regions in dynamic confrontation with another major dynamic movement, equally protean through history: globalization.

Lefaivre and Tzonis’s historical view of how regionalism became emerged neither as a passing trend nor as a repetition of past campaigns, but as a continuous process creating new differentiated, diverse, regions in dynamic confrontation with another major dynamic movement, equally protean through history: globalization. They view the framework throughout architectural history allows an opportunity to apply it to the current context of globalization. They view the framework of regionalism as an opportunity to embed the world in a complex system of interdependencies that are both spatial, ecological and cultural, just as do Seltzer and Carbonell.

Vincent Canizaro, professor, practicing architect, and editor of Architectural Regionalism: Collected Writings on Place, Identity, Modernity, and Tradition, deduces from his study of many different architectural theorists that, similar to the previous players, regionalism “must foster connectedness to that place and be a response to the needs of local life, not in spite of global concerns and possibilities, but in order to take better advantage of them.” His direct support Seltzer and Carbonell’s definition for regions as dynamic not static conceptions, while also recognizing Lefaivre and Tzonis’s belief that regionalism can be used to better respond to globalization trends. His contribution to the regionalist framework is that he sees regions clearly as a “living concept.” Regional distinctions change and restructure to promote a more vibrant social and commercial life, while resisting trends of homogenization and universalization. The driving force of his region’s dynamics are the ways in which people wish to live.
Regionalism is of significant relevance in the discipline of architecture. In order to use the concept of regionalism and its shared interests and dynamics as a design opportunity, one must understand its inherent organization. Keller Easterling, in *Organization Space*, presents a means of understanding complex organizations, such as regions, through focusing not on form or geometry, but on the interrelationships and temporal components that define a spatial system.

Easterling argues that design professions have many terms to describe form and geometry, however unlike many other professions, such as geology or music, architecture has very few terms that can be used to describe active parts and dynamics. For instance, geologists don't just study artifacts but also research ice flows, erosion, and many other elastic parts with indefinite boundaries. She states that “we are most comfortable with nouns rather than verbs.” We like to understand systems in simple abstractions rather than as constantly-changing, less-concrete relationships. For instance, the U.S. interstate highway system was designed as an inflexible, neutral system that rejected connection with other transportation modes. Easterling states that “when a small desire meets large volumes of consumers, or a dumb component is multiplied within a banal or repetitive environment, it has the power to gradually reconstruct an organization,” and this is exactly what happened with the highway system, as well as systems such as the housing subdivision. She points out that “the architect with new computational tools is often more attracted to the visuals or behaviors of software environments than to the invisible network architecture behind the screen.” The design profession prides itself on its ability to tackle complex problems, yet fails to think critically about the true complexity of their tools and environments. Architects too often dilute complex systems with tautologies. Easterling values a network thinking, where the potential of urban organizations lies within their components that are both individually and collectively adjustable; “simple components that gain complexity by their relative position to each other.” This network becomes smarter as its multiplicity, differentiation and diversity are increased, and gains intelligence as it is connected to other complex networks. In this sense, architecture becomes about the parameters that are structuring a space in these networks. These organizational expressions are often quite familiar formats that typically are seen to be at odds with architecture. They are “protocols for timing and interactivity” and are often the key to reorganizing a complex system. These “wild cards” create space by playing with its organization, and are opportunities for architectural innovation.

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**REGIONAL SPATIAL ORGANIZERS: DEFINING THE REGIONAL EXCHANGE**

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Benton MacKaye, one of America’s first regional planners. This terrestrial network, though only a footpath, was seen by MacKaye as a “transportation” project because of the way in which the trail inverted the typical hierarchy of a transportation infrastructure. Normally, a highway was thought of as the primary organizing agent that then branched out into a series of progressively smaller organizations, eventually leading to pedestrian networks. However in the case of the trail proposal, the pedestrian path was the primary organizer in which streets and rails branched out from. The mountain range became the dominating agent in a profound reversal that contradicted the typical notion of concentric metropolitan growth and brought industries to the trail instead of to the suburbs. This “interstate geological formation” served as an organizer of both transportation and development in a way that it could redefine the whole understanding of the region. The trail was not a master plan, but instead, something much more effective at producing change. It was an ordering principle that influenced “migrations of population as well as the economies of production and distribution.” The trail also held layered intelligence because of the way in which it “recirculated” existing transportation networks and redefined their meaning, on top of its own complex system of footpaths. Mackaye was not interested in mimicking biological patterns, as has become a recent trend in the context of present day design, nor was he simply interested in the land. His interests were specifically tied to organizing movement, activity and temporal components, the defining characteristics of “Organization Space.”

The Appalachian Trail case study in combination with Easterling’s argument helps to define a way in which architecture can more sensitively and effectively deal with complex problems. It calls for architects to move beyond form and geometry to something more intelligent that focuses specifically on interrelationships. Organization Space lends itself quite comfortably to the dynamic characteristics of regionalism, and when the two concepts are combined, the context of the regional exchange, an architectural organization at the regional scale, is set.

16 Easterling, Organization Space, 1-9.
17 Ibid., 25-29.
When "regionalism" is merged with the architectural qualities and potentials of "Organization Space," this thesis’s concept of the "regional exchange" is formed. As a framework for current regional architectural nodes to evolve more responsively to lifestyle and culture, the regional exchange is, at heart, a built environment that organizes a region and is integral to its "interests and dynamics." The regional exchange concept comes from looking at the spatial organization at the part of the region that is most visible, the center. This spatial organization, the architecture, can manifest itself in many forms. The previous Appalachian Trail example, or even the Interstate Highway System, could be seen as one of them. However, the clearest way to understand how a regional exchange works and why it is a rich place of design opportunity is to define it in terms of the shared social and commercial characteristics of a region. These social and commercial interests are often the defining features of a place’s inhabitants and can often be telling, especially in the modern-age, to the state of the landscape itself. In this framework, the regional exchanges that are highlighted in this study are those of Main Street and the regional shopping center, whose histories speak to the complex, changing social and commercial needs of regional networks.

Alex Wall, in Victor Gruen: From Urban Shop to New City, which traces the life work of Victor Gruen, highlights three different forms of social and commercial regional exchanges. One, of course, is the shopping center, which he describes as an “urban-planning problem – to separate different kinds of vehicular traffic; and by an architectural goal – to recreate urban public space in the new suburban building type... (with) the potential to renew old city centers and inform a new regional planning.” The shopping center serves as a regional exchange because it embodies the social and commercial desires of the audience it serves. It provides a center to engage in social functions at the regional scale, and without it, the dynamics of socializing and spending money on consumer goods within the region would be greatly jeopardized. Another exchange would be a downtown urban core revitalization. In the words of Wall, “a city center still had significant economic potential and could, through planning, accommodate the new twentieth-century icons of the city: highways, shopping centers, and parking garages”.... “heart and brain for both the city and its surrounding region.” A successful downtown center can serve as the primary social and commercial node within a regional entity just as a shopping center can. Although the prevailing exchange over the past sixty years or so has been the shopping center. Another type of regional exchange, although only having ever existing as a proposal, was Gruen’s model for a multi-centered, networked city, “the Cellular Metropolis.” This regional city, was “an alternative...to the idea of continuous, laissez faire development spread over whole regions. He argued that cities do have an optimum size and thus the demographic explosion in the U.S. required new towns and cities, not just the endless expansion of existing ones.” This proposal legislated the grounds for a new social and commercial exchange built from the ground up. Gruen believed that this construction could more adequately respond to a region’s...
“interests and dynamics” while still serving as an architectural center. These forms of exchanges are full of opportunity, yet they have often been neglected or unrealized by design professionals. The ensuing sections will trace this growth and opportunity in the social and commercial realm in more detail.

In order to broaden the definition of the regional exchange, Tay Kheng Soon and William Lim’s Golden Mile Complex, in 1973, serves as a case study to exploit its qualities. This project consisted of “aggressive megastructures imposed on the environmental and lifestyle particularities of the region... mixed-use housing and commercial centers, an arrangement that permitted people to work and to have a family and leisure life without having to use transportation.” This project was an architectural manifestation that commented on the larger concept of how a city relates to its region, and Kheng Soon, in turn, described urban life where, “A true city is a congested city — congestion not of cars but of people drawn close together by a multitude of related activities.” He continued, quoting Lewis Mumford, “a city where ‘work and leisure, theory and practice, private life and public life were in rhythmic interplay... (where) one part of life flowed into another. No phase was segregated, monopolised, set apart.” This architectural project, although unrealized, embodies a vision for a future regional exchange. This architecture attempts to organize layers of activity and functions integral to the region in an attempt to concentrate its density in a way that the system can more successfully serve the needs of its people. The spatial organizer was the architecture of the megastructure, and through its design, it created opportunities for new interrelationships. Regional exchanges, as seen in the instances above, provide an opportunity to influence the core social and commercial functions of people through architecture. However, some of the most significant regional exchanges evolved without the help of design services. In fact, architecture had almost no effect on them, often resulting in unrealized proposals, such as in the Golden Mile Complex. Regional exchanges, by nature, are powerful structuring forces within their system, and in order to tap into their potential, architecture alone will not be able to overcome the immensity of the social and commercial organization. Architects will need the help of a significant cultural catalyst.

Golden Mile Complex

Wall, Victor Gruen, 12.
Lefaivre, and Tzonis, Architecture of Regionalism, 172-173.

Figure 11.22 Tay Kheng Soon and William Lim, perspective section of Wo Hui (Golden Mile Complex, Singapore (1972).
Regional exchanges are constantly evolving and changing, and the architecture that results from this dynamic can be influenced via Easterling’s “switches.” Switches are common development protocols or everyday tools, often overlooked, that influence interactivity and linkages and, if recognized and engaged, can be used opportunistically to reorganize regions. When you apply a switch to a regional exchange, a radical restructuring will result in a completely new exchange. Switches occur with or without the influence of architecture. However it is with the help of architecture that the switch’s potential can be fully exploited.

The basis of this idea of “switches” is derived from the concept of “terra incognita,” which Easterling describes in detail. Terra incognita, is essentially “territory...discovered within a new arrangement of perceptions. It is a site constructed through “the subtraction of dominant development patterns” and through this new way of thinking about place, discoveries can be made. In the case of the Appalachian Trail example, terra incognita was realized through rethinking the landscape in terms of using a mountain range as the primary organizer. Easterling states that “the hydroelectric grids materialized a network of relationships that were already latent in the landscape.” Benton MacKaye, rather than focusing on the whole country as part of what need to be organized, simply focused on the “internal mechanisms or generative centers that would command surrounding order or organizational field with its own variable boundaries.” Innovation came through rethinking the workings of a specific, unique region. The altered perceptions that results from thinking in the terra incognita framework is not a prelude to making, but is the actual decision process itself. The effects of these new arrangements do not need to take comprehensive control, but can instead serve as radiating catalysts, such as in MacKaye’s regional organization. And it is through this mode of thinking that switches can be used to rearrange the perceptions of a regional exchange through very simple means, yet with complex effects.

The switches most effective in influencing regional exchanges are often very simple, everyday devices. They embody the “power of the small component to recondition a larger organization.” In this study, the automobile and the way in which it sparked a rapid evolution of Main Street into the shopping mall, serves as an example of an extremely catalytic, yet everyday switch. The automobile forever changed the regional organization of society and commerce. A switch must have significant cultural significance and acceptance in order for it to be effective in being used as a reorganizing catalyst. It has everything to do with what drives people and how they want to live.

Switches: a component of “Organization Space”; common development protocols or everyday tools, often overlooked, that influence interactivity and linkages and can be used opportunistically to reorganize systems (regions); “terra incognita”; “wild cards” (i.e. the subdivision; the automobile).
Regional exchanges, combined with switches, provide a mode in which to evoke achievable yet monumental change on the regional scale, whether or not the influence of an architect is present, and is this study's most basic equation. Throughout this study, what is commonly referred to as the Central New York (CNY) Region, located in the geographically central area of the state of New York, will be used as a case study to not only understand the historical evolution of the main street regional exchange, but also to test this basic equation as a means of further evolution in the 21st century.

The Central New York Region is ripe with relatively unique “shared interests and dynamics” at the regional scale while also in a way serving as a fairly standard condition that can be studied and applied to other regions throughout the United States and possibly even beyond. The key characteristics of the CNY Region that will define the social and commercial dynamics of the region are as follows: commercially, Central New York is defined as a transportation corridor, educational, medical, and agricultural hub, while also having a vibrant artisanal economy. Socially, with its history from the arrival of Native Americans to the present-day mega-projects such as the Connective Corridor and Destiny USA, it has been characterized by diversity, open-mindedness, and ambition. These are only highlights of the region’s particularly vibrant qualities. At the most concentrated area of the region, the City of Syracuse was the focus of Architectural Forum’s ambition. These are only highlights of the region’s particularly vibrant qualities. At the most concentrated area of the region, the City of Syracuse was the focus of Architectural Forum’s ambition.

The Central New York Region’s clearest shared commercial interests are in its transportation, educational, medical, agricultural and artisanal dynamics, while its social interests lie within its diversity, open-mindedness and ambition. It is in these aspects, seen most clearly through the City of Syracuse, the center of this overlap of changing relationships, that the region begins to gain definition to serve as the case study for the evolution of a key regional exchange: Main Street.

In line with many other “Rust Belt” cities, Syracuse went through a population decline after reaching a peak of 220,000 in 1950. In the ensuing decades, many people left the city for the surrounding new suburbs and beyond, leaving the population currently at 145,200. Local urban commercial areas struggled after the war as strip mall development and other automobile-triggered places proliferated. In recent years, Syracuse has reached a turning point. Population has begun to level off and many people are rediscovering downtown and its potential as a place to live, work and play. Many new walkable neighborhoods are being created and home values are increasing as the housing market expands. This newfound interest in walkable neighborhoods in a city that already contains this fabric from an earlier point in history lends its commercial areas and streetscapes ripe for revitalization.23

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Main Street as the Starting Point
Main Street, throughout history, has been consistently defined as a concentrated regional passageway of social activity framed by commercial buildings and is the starting point for tracing the evolution of a primary regional exchange via a series of switches.

Richard Francaviglia, in Main Street Revisited, discusses Main Street as both a real place and idealized image that is persistently structured by social and commercial functions. Francaviglia denotes Main Street as a built-up commercial area, or downtown, of small communities. Its uses consist of all kinds of activities, including but not limited to markets, parades and festivals. It is characterized by a repetition of individual buildings with fronts that give off "personality" through their massing, openings, rooflines and other elements. Main Streets never consist of one type or style of buildings but instead of several that were developed over time, reflecting change directly through architecture. The key spatial elements of Main Street are streets (and their patterns), buildings (as well as other structures) and open spaces (including parks, squares and greens). The key purposes of Main Street are for retailing, or the "marketing or sale of items or services to the public;" community gatherings, such as parades, which help "blur the distinctions between its economic and social functions;" government and its services, including the city hall and courthouse; and places of entertainment, such as in theaters and opera. The common thread between these different purposes is their reference to the commercial buildings which line the street.

Main Street: primary corridor of activity in a region; a concentrated passageway of social activity framed by commercial buildings.
Main Street, as a primary corridor of social activity framed by commercial buildings, embodied the characteristics of a regional exchange because it served as a spatial organizer that most clearly brought together the social and commercial dynamics of the region. During its heyday, it was the clearest center of the “overlap,” and its evolution over time was reflective of how these social and commercial dynamics were changing. Main Street was part of a set of interrelationships that went far beyond its primary architectural corridor.

Francaviglia would see Main Street as a good starting point because after the establishments of towns in the early days of America’s history, Main Streets quickly became the focal point of their life. They served as the “concrete manifestation of American values.” Francaviglia argued in support of their significance: “At the crossroads of commerce and transportation, civic identity and spatial range, Main Street provided both a convenient entrepôt and a material definition of citizenship for countless communities literally across the land. It was public space structured by common activity or need and giving to the people’s experience a rich body of limits and metaphors... This material definition among numerous localities is what made Main Street such a powerful regional force. It served as a regional exchange through its ability to promote this range of experiences to its inhabitants. And again as a regional spatial organizer, Main Street’s design “served to direct, attract, and control the interest of the populace.”

Although Main Street was often mistaken as a local organization, in the words of Seltzer and Carbonell, “no local planning effort can meaningfully address local concerns without understanding and acting on them in a regional context.” Main Street contributed to a sense of regional identity through its building forms, property sizes and shape, street pattern, and configuration of urban spaces at a time when national identity was expected to be the driving force. Its material systems, such as proximity, concentration and the movement of goods, structured its commercial qualities through intense levels of exchange and gave way to modern consumer culture. Main Street, as argued by Francaviglia, is “more than economic.” It is both functional and aesthetic in a way that defines regionally held values about the way in which one arranges space and how people should relate to it. These qualities are what construct an understanding of this historically significant regional exchange.

28 Francaviglia, Main Street Revisited, xi-xii. 192.
29 Seltzer, and Carbonell, Regional Planning in America, 2.
30 Francaviglia, Main Street Revisited, xii, 127, 191.
Over time, Main Street was able to host, organize, reflect and reorganize the changing social and commercial relationships within the region. Main Street first gained significant organizational form around the year 1800. It revealed a diversity of origins, with its architecture evolving from residential and vernacular sources as well as public and commercial building forms. Main Street was constructed over time through the sum of its individual buildings, becoming "townscape" only through being placed close together, one after the other, in order to maximize their commercial use. Its most basic form displayed a correlation between a town's population size and the number of commercial Main Street blocks. In the words of Francaviglia, the "size and appearance of Main Street (were) indicators of population change and its economic consequences."\(^{31}\)

Main Street during the Victorian Era began to reflect prominent commercial dynamics. The introduction of bulk windows was the first significant step from residential to mixed-use type of buildings that hosted retail on the ground floor. This architectural component gave way to a social experience, the practice of window-shopping, and dictated the future aesthetic development of Main Street far into the mid-19th century. At that time, a turning point occurred as architects entered the arena: formal styles and construction standardization were promoted in publications, making them commonplace. The facade of a building quickly became the most important elevation because it faced the principal thoroughfare. The period became marked by standardization, amplified by the cast iron foundries that gave way to modular buildings of common parts. The advent of the national railroad system from the 1870s to the 1890s helped influence this dynamic, allowing cast iron to be shipped across these networks easily. The railroad also had another effect: "attractive, affordable, easily constructed, easily installed and, most importantly, standardized" streetscapes in small towns across America.\(^{32}\)

Next came a wave of technological improvements on Main Street that showed Main Street's ability to adapt to modern changes. There were the telegraph wires in the 1850s and 1860s and then electricity which brought street-lining power poles in the late 1880s. Electrical lighting made gas and oil lamps, that had lined Main street since the 1830s, obsolete. The telephone brought in a requirement for even more lines. Transportation technology included the electric interurban streetcar in 1887, and the bicycle in the 1890s. This caused an increased demand for paving as bicycling causality rates rose on the typically muddy streets. Concrete was another major innovation in the 1890s, while water towers also became a very iconic Main Street feature. Trees were often planted, starting around this time, as a way of adding shade and making the street more attractive.\(^{33}\)

One of the major developments of Main Street in the early 20th Century, before the automobile switch was flipped, was the introduction of the Chicago Commercial Style, representing modernization. Steel was used to enable buildings to be much taller than those constructed out of masonry. Window openings became larger on the upper stores, bringing in much more light. The increase in the size of these openings began to blur the difference between the first and upper stories as large horizontal glass expanses became common across the entire face of the building.\(^{34}\)
At the focal point of Central New York, Syracuse's regional main street consisted of South Salina Street on the north-south axis and South Warren Street on the east-west access. These streets ran directly through the region's main business district and served as a center for not only a multitude of apparel, accessory and drug stores, but also as the main passageway for the streetcar and then later, a major rail-line. Many social functions and festivals also took place on these streets. Although today these Main Streets are much different than they were at their height in the 1950s, there are still some retail establishments along these streets. However, the primary sites of social activity have shifted to districts in the west and north and also the transportation infrastructure is long gone. Efforts to rehabilitate buildings along these streets are underway. Although these two streets served for decades as the main regional social and commercial organizers in Central New York, their users' interests and dynamics have shifted to many of the commercial boulevards and shopping malls in the suburbs. However, the region and its people still work to find new life on these historic streets and now hope that they will one day serve as a regional crossroads once again.

Main Street, although serving as a regional organizer for over a century, was not able to maintain this status far into the 20th century. The words of Francaviglia, although Main Street was idealized for its picturesque qualities and sense of community, it failed because of its “narrowness of thought and slowness to respond to change.” Main Street provided security yet also gave way to conformity, becoming “havens” from rapid technological and social changes. This quickly proved to be an unsuccessful format to respond to the “shared interests and dynamics” of the region. Uniformity combined with nostalgia became significant characteristics of Main Street that led to its downfall. The advent of shopping malls became more attractive due to their controlled environments and flourishing social life, combined with major marketing campaigns. Commercial trade began to shift away from the town as the “shopping mall simply and honestly perpetuate(d) the connection between the stationary merchant and the mobile customer.” The “Malling of Main Street” which was an attempt to save it by learning from the shopping mall, was unable to reverse the decline and actually instead accelerated it. Pedestrianized streets forced people to park several blocks away and put the retail shops out of the site of the driver, making the shopping center even more attractive. Alex Wall argues that the periods of depression, war, and recovery paved the way for suburbanization and the shopping center. He writes that, “(Government policy) measures, largely the results of collaboration between private industry and the federal government, were the mechanisms that started an ‘urban and suburban revolution’ and spawned the consumption landscape that continues to evolve today.” For instance, “the Congressional amendment to tax legislation in 1954 allowing ‘accelerated depreciation’ on commercial development on suburban greenfield sites made it far more profitable to invest in strip centers, shopping malls, and suburban industrial parks than to put money in to new or existing structures downtown.” Supported by the words of Victor Gruen: rows of businesses and enterprises were strung together on both sides of the main streets, producing for shoppers endless long routine trips that could often only be undertaken with an automobile. Shopping in this way was not only time consuming but also increased the through traffic. Moreover, the space in front of the businesses was further reduced by parked vehicles, which led to additional conflicts between all types of traffic: private automobiles, buses, trailer-trucks and pedestrians. It was through these conflicts, which once again primarily came down to Main Street’s “narrowness of thought and slowness to respond to change” that caused it failed as a regional exchange. My meeting with the City Planning Director of Oklahoma City, Russell Claus, supported the thoughts of both Francaviglia and Wall. Claus went on to say that if a city or town is not able to update itself with new transportation modes, then it must accommodate the automobile. This accommodation leads to parking lots and garages that often destroy the fluent social and commercial experience on Main Street because of the sheer size of the space they take up. In Oklahoma City, its traditional main street is severed by a two-block parking garage and complex that runs directly through the street’s former center. Gary Beck, a building inspector in the City of Poughkeepsie, New York, said that it is actually cheaper to locate retail downtown than in the local shopping malls, yet retail shops still choose the mall over Main Street because Main Street is simply no longer the cultural spot. The County Planning Director in Cooperstown, Karen Sullivan, supports these claims as well. Cooperstown is actually a unique case because its Main Street is still thriving, however Sullivan describes this life as “fake” because it is solely depend on tourism (it contains the National Baseball Hall of Fame). Locals stay far away from Main Street because they do not see it as serving their needs. Even if it did allow for basic social and commercial functions, it has become completely inaccessible due to the traffic congestion caused by this tourism. Although Cooperstown’s Main Street appears alive and well, it actually died with many other Main Streets long ago.
FROM STREET TO MALL: THE ADDITION OF THE AUTOMOBILE
In the 1920s, a major transportation revolution began to shape the main street exchange: the automobile. Largely replacing horses and wagons, it brought about parallel parking, saving space that had not been possible with the diagonal parking required by horse and wagon. The automobile brought a much more horizontal perspective to Main Street, with horizontal signage and wide expanses of showroom glass on the first floors. The automobile elongated the streetscape by enabling people to travel further. It also sprouted service stations and motor courts along Main Street. Building heights were reduced and windows were widened in all new construction. According to Russell Claus, in Oklahoma City, similar to many other places in the United States, people quickly fell in love with the car and did not see it as destructive, unlike many architects and planners. Although it pushed away many other forms of transportation, people seemed content with the new modes of living the automobile brought about. As architects stood opposed to this powerful switch, the automobile gained high prominence across mainstream America and took control of the evolution of this social and commercial regional exchange.

Francaviglia, Main Street Revisited, 46-47.
The primary reason the automobile served as a switch was because this “everyday tool” quickly became a pinnacle of American culture that had the ability to immensely impact interactivity and linkages within a spatial region. It certainly encapsulated the concept of “terra incognita” in the minds of the America people as well as many business owners and developers. Alex Wall describes the automobile as an “instrument for typological change,” serving as a lesson for downtown that people “wanted a well-managed, up-to-date shopping experience that was spacious, safe, accessible by car or public transit, and nearby other popular functions.” It was a cultural wake-up call of sorts. And for Francaviglia, the automobile exposed the lesson that “form follows access,” especially in the case of Main Street. “Because people’s mobility affects their access to buildings, and because the speed with which they move in turn determines how they view structures and assemblages of buildings, the shape of Main Street architecture is, in part, determined by the prevalent type of (accessibility).” The prevalent type of accessibility was the automobile at this point in history, however despite all of this, the automobile was a switch that architects were not ready to accept.

Regional Exchange

Regional Exchange

Switch

Regional Shopping Center

Architect

1 Wall, Victor Gruen, 53, 113.
2 Francaviglia, Main Street Revisited, 189-191.
FROM STREET TO MALL: THE ADDITION OF THE AUTOMOBILE

Why Did Architects Not Get Involved?

According to Alex Wall, “The accelerating growth of new communities, together with the expanding population and increasing automobile use, had already led to the proliferation of farmers markets, shopping strips, and shopping districts. For many architects, planners, and critics, this metastasizing landscape of consumption seemed an affront to city and land, and so they ignored it, thereby missing out on the birthing of this landscape.” Neglecting this switch came with grave consequences. In the words of Wall:

Architecture and planning are devoted to creating the built environment, yet in the past fifty years, architects have confined themselves to creating signature buildings, and planners have rebuilt downtowns or renewed historic city centers that fewer and fewer people have wanted to, or could afford to, live and work in. Where were architecture and planning when suburbia was first built out? And where was planning when interstate highways pushed through residential neighborhoods, and when the needs of new suburbs, aging downtowns, and regional landscapes conflicted with one another and required reconciliation?43

However, an important exemption to this sentiment is architect-planner Victor Gruen (1903-1980), who fully immersed himself in these trends and attempted to steer them, becoming the accepted author of a new regional exchange: the regional shopping center. Gruen questioned “the role and the responsibility of the architect in a mass society.” He started out as a well known main street shop designer in Vienna and then moved to New York before World World II, slowly testing ideas that would eventually make the innovation of the regional shopping center a “vital center of community.” His downtown-revitalization plans accepted the car and designed around it, although he was criticized for still trying to push a pedestrian agenda which at times caused him to miss the mark. Regardless of his missteps with this switch, Gruen was still able to “change the course of our daily lives” forever, through multiplying the regional exchange by a switch. The regional shopping center was essential derived from the same key elements as Main Streets, yet with a different organizing force.

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43 Ibid., 10.
How Did Main Street Evolve Into the Regional Shopping Center?

FROM STREET TO MALL: THE ADDITION OF THE AUTOMOBILE

The rise of corporate chains and national franchises gave Main Street the idealized Main Street prototype in Walt Disney's Disneyland. These chains eventually outgrew many Main Streets and presently, their designs became more architecturally sensitive. In the 1980s and 90s, “historical excess,” caricatures of architecture rather than accurate historical copies of it, became prevalent.

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Ford, however, was significant instead in his ability to synthesize a commercial practice with a philosophy of urbanism; his willingness to engage compromise; his ability to identify what could get built; and, finally, the urgency with which he addressed the question: What kind of city do we want? He started out testing these ideas early in his career through small urban shop projects in Vienna, New York and Los Angeles. The shop, according to Gruen, was “a place of social interface, a semi-private place with a direct and active relationship to the public and the street.”49

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Returning to Francaviglia's historical timeline of Main Street's evolution, the modernization of Main Street continued to result in buildings with a simple horizontality, as building facade ratios of width to height continued to increase into the 1950s. Large expanses of glass were constructed at the street level because upper levels had far less functional utility. As a result of this thinking, like shopping centers, most new construction on Main Street was only one-story. In renovating existing projects, the lower facades were often remodeled while the upper floors maintained their earlier architecture, further accentuating this horizontality and contrasting to the key value of verticality during the Victorian Era. These changes were all “switched on” by the fundamentals of the automobile.44

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The hope in “Malling” Main Street was that it would be able to directly compete with the shopping centers that were taking away business. However, most developments of this nature failed, removing their barricades and returning vehicular traffic to the street.46 Attempts at reviving Main Street as a regional exchange had all failed, allowing the proliferation of a parallel timeline of social and commercial development instigated by the automobile: Victor Gruen's regional shopping centers.

Returning back to Main Street, in the 1960 and 70s, many were closed to vehicular traffic in hopes of improving the pedestrian downtown experience and drawing more people. The hope in “Malling” Main Street was that it would be able to directly compete with the shopping centers that were taking away business. However, most developments of this nature failed, removing their barricades and returning vehicular traffic to the street.46 Attempts at reviving Main Street as a regional exchange had all failed, allowing the proliferation of a parallel timeline of social and commercial development instigated by the automobile: Victor Gruen's regional shopping centers.

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Another significant force in Main Street’s evolution was the idealized Main Street prototype in Walt Disney's Disneyland. This prototype, in effect, became the model of the shopping mall, “where the visitor shopper leaves the car in the parking lot and enters an environment that is climatically controlled, and where the real world is left outside.” Every aspect in Disney's Main Street was carefully orchestrated in design and circulation, and this helped shopping mall developers learn how people “move through, appreciate, and patronize a retail environment.” The “Malling of America” occurred in line with the values laid out by Disney. Mall stores were pressed together with low facades, with everything minimized in scale for maximum efficiency. There were few corners and very little unused space so that there were “no decisions to make,” and people just “flowed on.” Sociologists would determine that people visit these mall environments for reasons far more than just commercial. These places became vital points of social interaction where “people may wind up meeting future spouses and friends; where families go simply to stroll, to see people and to be seen by them; where young people go to ‘hang out’ and socialize.”47 These ideals would be key drivers of Victor Gruen's regional shopping center projects.

Returning back to Main Street, in the 1960 and 70s, many were closed to vehicular traffic in hopes of improving the pedestrian downtown experience and drawing more people. The hope in “Malling” Main Street was that it would be able to directly compete with the shopping centers that were taking away business. However, most developments of this nature failed, removing their barricades and returning vehicular traffic to the street.46 Attempts at reviving Main Street as a regional exchange had all failed, allowing the proliferation of a parallel timeline of social and commercial development instigated by the automobile: Victor Gruen's regional shopping centers.

Victor Gruen was not one of the great “form givers” of his era, however he was significant instead in his ability to synthesize a commercial practice with a philosophy of urbanism; his willingness to engage compromise; his ability to identify what could get built; and, finally, the urgency with which he addressed the question: What kind of city do we want? He started out testing these ideas early in his career through small urban shop projects in Vienna, New York and Los Angeles. The shop, according to Gruen, was “a place of social interface, a semi-private place with a direct and active relationship to the public and the street.”49

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Gruen understood clearly the vital importance of this simple social and commercial relationship that had been so integral to the organization of Main Street. The key social and commercial relationships and linkages from his shop designs began to manifest themselves in another building type, over regional shopping centers: the department store. Starting out directly on Main Street, the department store essentially grew from increasing the scale of a shop while focusing specifically on the relationship between people and product. It was a “space maker preoccupied with movement and flows,” the tenets of Organization Space. Gruen’s 1941 Grayson’s Department Store in Los Angeles represented the first department store project to incorporate the car and shift to the automobile center. It contained two fronts of equal importance, with the automobile-focused front characterized by large-scale causes and a sweeping glass facade. His next project, Grayson’s Victory Store in San Francisco, was significant because it was designed during a resource shortage due to the war, causing the store to expand into adjacent spaces to save money from buying new. In order to unite these differing architectural facades, the introduction of a simple, common facade with a super-graphic became of even more importance.51

Gruen’s Million’s Department Store project back in Los Angeles moved the department store off Main Street into the new suburbs for the first time. It was extremely ahead of its time in some of the ways in which the architecture responded to the automobile. Million’s was a free-standing department store, increased in size and accessibility. It’s one-story design was extremely efficient, ramping parking onto the roof. Also on the roof were other sites of social functions newly incorporated into the department store (perhaps because of its movement off Main Street): a drive-up restaurant, creche, beauty salon, and community hall. Other automobile-focused features were a monumental tower, its scissor ramps giving access to the roof parking, the stage-lit display pavilions that lined the sidewalk, and most importantly, the major vehicular boulevard that ran parallel to it. This sidewalk also had a large setback for landscaping. The store had not one or two, but three entrances: from the street, from the roof parking lot and from the additional parking lot in the back. The interior was characterized by full-height pylons that functioned as way-finding devices as well as service areas. This interior had a radial layout, as opposed to the linear layouts most often found on Main Streets. It became a social “theater space” of sorts, with flexible fixtures, ceilings and lighting. In the words of Wall, it was a “giant stage set that could be transforming overnight,” with this flexibility perhaps being driven by the fast-changing expectations brought about by the car. This hybrid department store’s greatest significance was that it demonstrated that “the automobile was an instrument and force for typological change – Million’s was designed to serve flows of vehicles, people, and merchandise.” Despite all of these major innovations, many of which are being revisited today (such as rooftop parking and the blurring of retail and community spaces), the model failed because the commercial boulevard along which the store resided was too large, creating two distinct, separate environments between the two sides of the street. A more compact environment was needed. Regardless of its failures, this project served as an early experimentation in the regional shopping center.52

The movement from the city’s main streets to the suburb’s shopping centers was completed through two significant conditions brought about by the automobile. One was the competitive actions of large downtown department stores as they sought to take advantage and control of the new suburban market and the second was the vast numbers of cars that needed accessibility to the centers and a place to park at them. The regional shopping center would serve a much larger, regional population, as people grew accustomed to traveling much larger distances. According to Wall, “Access would be provided by the planned highways, which would create the structure of the outer metropolitan area, while convenience— in sharp contrast to the shopping conditions of both commercial strips and downtowns -- would be provided by free parking and the separation of pedestrian and vehicular traffic.” Other automobile-focused features were a monumental tower, its scissor ramps giving access to the roof parking, the stage-lit display pavilions that line the sidewalk, and most importantly, the major vehicular boulevard that ran parallel to it. This sidewalk also had a large setback for landscaping. The store had not one or two, but three entrances: from the street, from the roof parking lot and from the additional parking lot in the back. The interior was characterized by full-height pylons that functioned as way-finding devices as well as service areas. This interior had a radial layout, as opposed to the linear layouts most often found on Main Streets. It became a social “theater space” of sorts, with flexible fixtures, ceilings and lighting. In the words of Wall, it was a “giant stage set that could be transforming overnight,” with this flexibility perhaps being driven by the fast-changing expectations brought about by the car. This hybrid department store’s greatest significance was that it demonstrated that “the automobile was an instrument and force for typological change – Million’s was designed to serve flows of vehicles, people, and merchandise.” Despite all of these major innovations, many of which are being revisited today (such as rooftop parking and the blurring of retail and community spaces), the model failed because the commercial boulevard along which the store resided was too large, creating two distinct, separate environments between the two sides of the street. A more compact environment was needed. Regardless of its failures, this project served as an early experimentation in the regional shopping center.52
or "attractors," that supported social and cultural activities and would in turn, ensure the commercial success of the center. The first regional shopping center by Gruen, 12 miles outside of Detroit, was arguably one of the most significant of its time. Opening in 1954, the Northland Shopping Center had a pinwheel plan with five tenant store buildings arranged around the four-story J. L. Hudson Department Store, the central and centrally positioned magnet. Customers would walk from their cars past competing stores through a network of public spaces before reaching Hudson's. The open public spaces between buildings were modeled after European cities. The 470,000 square foot complex protected shoppers from sun, rain and snow with its arcade. The complex gave prominence to its social functions: two auditoria for lectures and concerts, a series of clubrooms with a kitchen, several restaurants, a small inn, and a creche. The primary outdoor spaces were unexpectedly booked months in advance with fashion shows, exhibitions, musical performance, and "town meetings." Only two stores were open on Sundays, however this did not stop crowds from flocking to the center. The cherry Hill Shopping Center, also marked by a principal anchor tenant in its shopping center. This meant that although Dayton's, was intended to be the center of this planned community rather being an isolated building complex in the suburban landscape as it was in the past. The third innovation was that it had two main shopping floors instead of one, while also having a fully programmed basement and services in the penthouse. In 1963 the press announced that Donald's, one of Dayton's retail competitors, planned to open a branch only a few miles away. In order to avoid splitting the market, Dayton's invited Donald's to become a second anchor tenant in its shopping center. This meant that although the mall was based off of a pinwheel square similar to Northland, it was unique in that the two department stores were not central but instead capped the ends of the mall. This freed the central square to give host the "community living room" concept. This internal court gave Southdale a "downtown" feeling, adaptable for fashion shows, concerts, lectures and even car exhibitions. Southdale became an integral part of the community. The final regional shopping center project key to its evolution from Main Street was the Cherry Hill Shopping Center. While the other centers represented numerous innovations and potentials, this was the first of Gruen's projects that began to clearly hint at the signs of vulnerability to come, showing the exhaustion of the automobile as a switch and the need for a new one. The success of Southdale catalyzed an explosion of shopping centers across suburban American, killing inner cities. The Cherry Hill Shopping Center, also marked by a principal internal court and thereby becoming the principal identity of its regional community, showed that cynical, profit-driven developers would reduce the social functions of these centers in a blind, utilitarian pursuit towards efficient commercial space. Gruen's vision of the architect-planner's role in the shopping center was beginning to dissipate, and the search for innovation in the center's design was quickly diminishing.
Regional Shopping Center:
a large, integrated retail complex with supporting public spaces that serves as an accessible, regional node.
The regional shopping center reflected more clearly than any other architectural building type of similar scale the shared social and commercial interests and dynamics of its users. This regional exchange succeeded over Main Street because it responded more specifically to the changing of lifestyle and culture turned on by the automobile switch. It shifted the regional core, the "architecture at the center of the overlap," to the suburban landscape, in effect changing the whole conception and understanding of the region -- terra incognita unquestionably.

This exchange recognized the "marketplace" as the center for interaction and communication and worked to make the "interface between economy and society" as efficient as possible. Important to its proliferation was that a successful shopping center "would not only function as a social and cultural center for its surrounding communities but also continue to evolve into a regional subcenter." More so than Main Street, this exchange was driven by merchants and developers who understood the automobile. Gruen tried to emphasize its potentials to architects, especially in its role in regional planning and its community-cultural value, however architects were simply not interested.

The regional shopping center was a "monument and fabric" in the American suburban landscape of the mid-20th-century. According to Wall, "The organization of the regional shopping center thus yielded a spatial and programmatic structure not only for revitalizing downtown shopping districts, but also for re-centralizing the emerging city region." This regional exchange's cluster system represented an entirely new urban pattern in the age of suburban sprawl.55

55 Wall, Victor Gruen, 19, 57.
56 Ibid., 90, 190.
In the Central New York Region, the city of Syracuse contributed to the shopping center’s birth and evolution through one of Victor Gruen’s projects. In May of 1943, Architectural Forum’s “194X” issue discussed how to transform the American “Main Street” from a thoroughfare to a pedestrian mall, and Gruen and his partner were specifically recruited to define a postwar model of a neighborhood shopping center, as part of this larger project. Architectural Forum proposed an ambitious plan to redesign the entire American city, in an attempt to reorganize the prime facets of American living. The editors chose the real city of Syracuse, New York because they felt it represented a “perfectly average American City” and would help demonstrate the project’s practicality as an experiment in city planning. This invitation to design a prototype postwar shopping center would be one of the first forces that drove Gruen to move to focus on the design of regional shopping centers. The main purpose of the project was to “build a better community.” The idea of the master-plan, a new one at the time, was that it would ensure that individual building projects would benefit the entire city, not just the developers. The project worked to correct this problem in the reordered Syracuse, trying to avoid building “the wrong things in the wrong places.” The master-plan’s primary goal was to promote “livability and human efficiency” through order and therefore, perhaps paradoxically, opposed the mixed uses that currently existed in the city. A major innovation of the study, making it years ahead of its time, was the idea of a “pedestrian paradise” downtown, banishing cars and opposing congestion. Syracuse’s Main Street, or “the Mall,” as the editors renamed it, was imagined as 11 blocks completely closed to traffic. The vision of the editors was for a “large plaza which might well become the town’s social and cultural center,” trying to combat the failing aspects of Main Street’s that Francaviglia’s historical timeline discussed. Also serving as a paradox, the editors planned a new commercial shopping center at the edge of downtown, significantly far away from its core, with the idea that this type of move would help downtown prospects, not hurt them. This strategy was aimed at relieving downtown parking pressures and allowing high-end, specialized retailing. Gruen and his partner worked to make its design generic enough to work in any city. The communal functions were set as the key to the shopping center’s role within the postwar city. However, perhaps a major oversight, the partners forgot to address the architecture of this center. Its style, color, materials, and design were never even mentioned. Despite this oversight, the contribution of the Shopping Center 194X to the history of the regional shopping center was crucial. When Gruen first described this type of center in 1943, it seemed fantastical and futuristic, yet ironically, this proposal was one of the few, if not only, realistic predictions of the entire 194X issue. Although unrealized, it forever changed the thinking behind “the ways Americans shopped and lived in...”
cities and suburbs. In reality, Syracuse, like many other Northern “Rust Belt” Cities, went through a period of population decline in the 1950s. People began fleeing to the suburbs in the thousands, promoting the development of large commercial corridors, such as Erie Boulevard, and many regional shopping malls, such as Shoppingtown and eventually the Carousel Center. Perhaps, embodying the open-mindedness and ambition so key to the cultural qualities of this region, one recent project exemplified clearly the height of fantastical interests in the regional shopping center: Destiny USA. Destiny USA, as it exists today, is a four-story super-regional shopping and entertainment complex on the shore of Onondaga Lake a few miles away from downtown. It is the sixth largest shopping center in the nation. The site of Destiny USA was originally a landfill surrounded by blocks of oil tanks, and in 1987, developer Pyramid Companies announced plans for a shopping center. These plans were controversial, especially because of the smaller mall, The Galleries of Syracuse, that had recently finished construction in Syracuse’s downtown. There was concern that this new mall would put an end to downtown retail. Despite this, plans went forward and the mall opened in 1990 as “The Carousel Center.” In 2001, Pyramid Companies announced an expansion project that would triple the size of the mall, renaming it “Destiny USA.” The plans proposed an extravagant experience with a Little Italy village, indoor water park, aquarium, a series of hotels and iconic towers, among other things. It was a modern-day Disney World. Eventually, the large tax breaks, controversy, funding issues, and shear magnitude of the project caused it to fall through, with only a water-downed version opening. This project not only exemplifies the height of imaginative thought surrounding regional shopping centers, but also exposes the ensuing resistance to these types of centers by many different players, including the American people at large.

58  Wall, Victor Gruen, 117.
59  City of Syracuse Neighborhood Plan.
The problems with the regional shopping center that began to make it vulnerable to change were that it was focused on “introverted architecture” that sought to overcome the “vulgarity” of sprawling highway strips. Because of the immensity of its scale, it became a “pancake” building type in design, reducing the role of the architect “to that of a traffic engineer and interior designer.” In an attempt to overcome these shortcomings, today these centers are trying to express a more lively character on the exterior through elevation renovations that open up to show storefronts to the parking lots. However, regardless of these efforts, a major shortcoming in the organization of the regional shopping center was that an individual project “would only be as good as the developer and the developer’s support for his architect.” It was seen as, in the words of developer Alfred Taubman, “a machine for selling, not an architectural problem.” While there are a significant number of projects, such as the one in Cherry Hill, that still remain in business today, the predatory nature of retail developments would lead to “dead malls” that began to litter the suburban landscape in the 1990s. Once Gruen lost control over the evolution of the shopping center, subsequent projects were “stripped of their social and cultural functions, transformed into a formula by developers and their institutional investors, and then replicated countless times across the American landscape.”61

These projects serve as a case study in the way in which Easterling’s Organization Space can go wrong. They were not only completely inadequate in serving social needs but also became outdated commercial centers as well. Consumerism took control of the mall typology and drove it from its initial very public functions to an extremely utilitarian state, devoid of its founding principles. The shopping center has persisted for the past few decades, however this simplistic urban condition, unlike the complex urban conditions of the main street regional exchange, is unable to sustain itself as the complexity of 21st-century commercial and social interactions continues to heighten. The automobile switch has exhausted its opportunities to be the leader in evolving the regional shopping center. A new switch is needed.

61 Wall, Victor Gruen, 101-110.
FROM SHOPPING MALL TO APP INFOSTRUCTURE: THE SMARTPHONE DISCOVERY
Once Victor Gruen realized the failures of the regional shopping center, he moved into a period where he developed a series of different projects, some realized and some not, that were focused on evolving this social and commercial exchange. These attempts at evolution failed to spark a new exchange. However, the automobile switch was no longer at the forefront of each of these projects as it had been in the past, when the American public was first energized by its prospects, and his attempts at evolution failed. However, it is important to study and understand these projects because they are significant to the historical timeline constructed in this argument and can help inform the next achievable regional exchange evolution.

Despite the “drama and innovation” of his shopping centers, for Gruen they were simply a means to explore a primary problem: the deterioration of American downtowns, which he felt was due to both their inability to deal with the car and their lack of planning. Gruen worked to design a new type of urban center that learned from these shortcomings and focused specifically on the “analysis of the flows of people, goods, and traffic.” The first product of this research was Gruen’s Burdick Street Pedestrian Mall project. Sited in Kalamazoo, Michigan, in 1957, it represented the first attempt to reconcile the city with the automobile through pedestrianizing downtown. It was the first major look away from the suburbs and manifested itself through a progressive series of four stages. The first stage was a one-way perimeter road that used existing streets and provided access to parking fields. The second stage relocated and transformed the perimeter road into a low-speed, limited access beltway. And then the third stage would gradually build out the center, replacing the parking fields with garages and freeing up land for development. The final stage, after the successful completion of the prep-work, would pedestrianize Burdick Street, emphasizing it as the main shopping and social corridor. Ironically, the oblique view of the plans for central Kalamazoo looked more like a regional shopping center complex than a small city’s downtown. Regardless, in the end, only a portion of the fourth stage was completed, the pedestrianization of two blocks, and it lacked the infrastructure to support it. In the end, the project failed as a regional exchange, however, it drew significance from being the first realized pedestrian shopping mall, 14 years after the Syracuse 194X project. Many other cities, inspired by Kalamazoo, would also attempt to pedestrianize their own Main Streets.62

Gruen’s next significant project was Midtown Plaza in Rochester, New York in 1956. It became the first downtown enclosed regional shopping center. While Kalamazoo proved too small to undertake such a large-scale project, Rochester demonstrated how a city could successfully prepare and implement such a project. Particularly interesting to the story of the project was how one private department store owner was able to completely restructure the city. The main role of the City of Rochester was to build a three-level underground parking garage with 2000 spaces. Public bus routes both within the city as well as throughout the surrounding region were brought into a new station hub at Midtown Plaza. The city also built a new main access street that connected the center with the city’s new inner loop. Midtown Plaza combined “the compactness and mixed function of a downtown with the atmosphere, amenities, and convenience of the newest shopping centers,” demonstrating how a single, compact, mixed-use complex covering several acres could work, where more than half of the activities did not even involve retailing. Again surpassing all expectations, every space was leased by the time of the center’s opening. It was used at all times of day, regardless of the weather, and became the main public meeting place within the city. Midtown’s success led Gruen to believe its model could be applied to aging downtowns across the country as an alternative and evolution to the regional shopping center. Midtown was completely integrated into the city and did not have large expansive parking lots surrounding it that

FROM SHOPPING MALL TO APP INFO-STRUCTURE: THE SMARTPHONE DISCOVERY
Failed Attempts at Evolving the Regional Shopping Center
served as barriers from connecting it to the surrounding fabric.
The program of the regional shopping center, which was becoming “limited and repetitive,” was in this project complemented by a mix of uses, such as hotel and office, that allowed it to thrive. While at Northland and Southdale the bus stations were losing their relevance, at Midtown it thrived, being well connected to the heart of the city. The success of Midtown Plaza was that it promoted a public-private partnership that allowed the creation of a highly successful project and met a number of goals. Its success only lasted for a few decades though. According to Rochester City Planner, Doug Benson, Midtown Plaza failed because it did nothing to update itself since its opening and was unable to resist a series of new competing regional shopping malls in the surrounding suburbs. Benson felt that although the concept of the project was extremely innovative, it failed on one key aspect: its connection to the city fabric. Although it served as a transportation hub and was also sited in the middle of the city, the exterior architecture of the center was uninviting and too modest for the significance of the project. Once again, Gruen’s focus on the arrangement of relationships and programs, while innovative, failed because of a neglect of other key aspects of architectural design.
The next attempt by Gruen at an evolution of this regional exchange was at the scale of a brand new city. In Gruen’s The Heart of Our Cities – The Urban Crisis: Diagnosis and Cure, he presented “The Cellular Metropolis of Tomorrow.” This regional planning project synthesized Gruen’s desire to return to the city for culture, commerce and enjoyment. It argued that planning should support “strategic interdependence between the historic urban core, surrounding urban areas, and regionals subcenters” while also promoting the city as the rightful urban center, the “heart and brain” of its region. The Cellular Metropolis was a planning model for both creating new cities and restructuring growth in existing ones. He based this model off of the cellular structure found in nature in the biological cell, with its nucleus, cytoplasm, and boundary walls: “Individual cells could be arranged in clusters of different sizes, some serving a single function and others serving many.” The model had a progressive scale of communal order from neighborhoods to communities to towns to cities. These settlements were interconnected by traffic infrastructure networks and separated by greenbelts. The system’s short travel distances allowed the establishment of close connections while giving each unit “its own spatial identity and sphere of governmental influence.” The individual, cellular units would not only be of differing shapes and sizes but also would reflect the local landscape through the spaces between them. The graphic representation of this model presented a networked planetary diagram, relating suburban pockets to local urban centers and then linking them further to a regional metropolitan core. This theoretical model was tested in Gruen’s Laguna Niguel Development Plan in Orange County, California. The project presented a way in which the Cellular Metropolis could not only serve as a diagram but also as a real planning tool that uniquely responded to the landscape. Like the Cellular Metropolis, it concentrated development into community clusters that allowed the large portion of the surrounding landscape to retain its character. The residential programming integrated low and high-rise apartment buildings along with single-family homes clustered around local enclaves of shopping. In the words of Wall: “The project clarified the importance of integrating residential, commercial, and industrial development with the local character of the landscape.” Gruen described this strategy as a “master-plan” that “grows out of the land.” All of these projects, although interesting case studies on the social and commercial regional exchange of the future, were unable to proliferate at the rate of the shopping mall typology. One may speculate that Gruen’s harsh criticism of the car and his insistence that the city center was irreplaceable as the center for urban culture perhaps showed that he rejected how people wanted to live, and this led to each project’s failure. Gruen never accepted regionalism as a continuous development and instead tried to tame and limit the city into a legible and clear character. Seltzer and Carbonell, as well as Easterling, would argue that this simplification was the reason for its downfall. With shopping malls across the country failing, and innovative proposals proving ineffective in providing a new avenue for growth, the groundwork is laid for the discovery of a new switch.
The Recognition of Changing Lifestyles

In order to propose a new switch, the changing lifestyles in America over the past decade or so must first be understood. According to Seltzer and Carbonell, one of these major changes over the last few years is a newfound appreciation and desire for downtown living. They cite that:

The Pew Research Center has projected that 82 percent of this growth will result from the arrival of immigrants and their children, many of whom prefer urban to suburban densities and lifestyles. The other growing segments of the population— including aging Boomers and young GenXers and Millennials—also prefer urban living. As a result, the suburbs are experiencing an exodus of young, well-educated, productive citizens, making those places, as currently configured, unsustainable in the marketplace as well as in virtually every other way.

This information would suggest that there is an architectural opportunity for a radical rethinking of the suburbs.

Moving even deeper into the discussion of lifestyle changes, Richard Florida’s controversial text, “The Rise of the Creative Class” is of relevance here not for its primary argument in catering to the new “Creative Class,” but instead for its merit in defining the changing ways in which people live and work in the 21st century. Florida, basing his observations on changing social conditions, discusses how “[w]e must shift from a way of life that valorizes consumption, in which we take our identities from the branded characteristics of the goods we purchase, to one that enables us to develop our talents and our individuality, to realize our tried selves through our work and other activities.” He defines the “Creative Class,” which “stands at the forefront of what the political scientist Ronald Inglehart has termed the transition to a post-materialist politics—a shift from values that accord priority to meeting immediate material needs to ones that stress belonging, self-expression, opportunity, environmental quality, diversity, community, and quality of life.” He notes that the driving force of the change is, “the Creative Class-artists and cultural creatives, students, professionals. Although these movements have been propelled by the Internet, by Facebook, Twitter, and other forms of social media, it’s important to note that they take shape in space—in real physical places—from Tahr Square to Zuccotti Park.” Despite the major evolution of social functions via the Internet and social media, Florida emphasizes that the significance of real, physical places remain. This “new age of mobilization” has lent itself to an advent of new social and commercial expectations that must be met in architectural manifestations.

Going deeper into the importance of “quality of place,” Florida defines three key dimensions: (1) What’s there -- the combination of the built environment and the natural environment and a proper setting for pursuit of creative lives; (2) Who’s there -- the diverse kinds of people, interacting and providing cues that anyone can make a life in that community; and (3) What’s going on--the vibrancy of street life, cafe culture, arts, music and people engaging in outdoor activities—altogether a lot of active, exciting, creative endeavors. What people really want is varied employment opportunities, lifestyle opportunities, social interaction, a place for dating and mating, diversity and open-mindedness, authenticity, scenes and an identity that allows them to develop a sense of self.

Typically in determining the primary places in which people spend their lives, there are two: home and work. However, Florida, building off of his predecessors, defines two additional...
key places in our lives: “Third places” which are: venues like coffee shops, bookstores, and cafes that make up the “heart of a community’s social vitality,” places where people “hang out simply for the pleasures of good company and lively conversation.”

And “fourth places” which are: venues that integrates work and community. A place where creative workers can go not just to ‘escape from work but to do some: to check our e-mail, post a tweet, to grab an impromptu meeting...it’s ironic but true: it’s hard to get any real work done in an office. Real estate developers are beginning to respond to freelancers’ and travelers’ needs for temporary offices and meeting facilities, making cubicles, offices, and conference rooms available for rent on an as-needed basis.

Between these four unique types of places, their quality can be summed up by their ability to provide an interrelated set of experiences that are dynamic and participatory. Quality of place is the new driver of economic development, not business or retail factors like in the past.

These trends defined by Florida were also seen through my trip to the various urban centers. In Oklahoma City, Planning Director Russell Claus discussed how people have begun demanding something different at odds with “shareholder value.” The people want small elements of place, maybe even a return to downtown retail. He felt that social functions have become even more prominent, with small community centers, along with locally driven retail and pubs, popping up in pockets around the city. He commented that people want to live in more rural areas yet get to have an urban experience.

In Pittsburgh, Don Carter, Director of the Remaking Cities Institute, discussed new “lifestyle centers,” such as the local “Southside Works,” which are new outdoor, mixed-use centers that are springing up around the city. Carter stressed that “scale has become key,” along with issues of accessibility and provides new, intelligent modes of transportation that don’t cost the government tons of money (such as bikes). He discussed how more and more people are moving back downtown. Carter felt the driver of the future will be an experience-focused economy where “people want to be around other.” Despite advances in technology, people will still desire these types of “third and fourth places.” These new lifestyle trends in Pittsburgh are supported by Florida, who talks about Pittsburgh in detail as a successful case study: “Pittsburgh has moved from a laggard to leader in locally oriented creativity and quality of place... Pittsburgh is an island of calm in the raging recession.”

My visit with County Planning Director Karen Sullivan in Cooperstown also sparked conversation about these new lifestyle trends. Sullivan discussed how people are always in search for a sense of community whether in their own geographic place or as they visit others for work or leisure. People like to go to central destinations even more so now than when the suburban landscape first formed. In Cooperstown, although it consists of many of its own problems, it creates a sense of place by hosting numerous festivals and events to build community: the Pumpkin Festival, the Winter Carnival or the Downtown Dinner event — they are all geared towards locals and bringing people to Main Street. This local grassroots trend and sense of community ownership has become extremely important to the region in recent years.

Finally, in Saratoga Springs, New York, Bradley Birge, who leads the city’s planning and economic development, discussed the rising mixed-use centers that have helped bring people back downtown and create a really lively local community. More and more people are now living above Main Street’s shops, which has been a prevalent trend for decades. Saratoga Springs is interesting in that it successfully balances local mom and pop stores with local mom and pop stores. They mutually support each other and are mixed together along the street. The large brands help draw serious shoppers to the mom and pop stores while the mom and pop stores draw people due to their local flavor. Birge believes that to support these rising trends, the switch of the future must promote an even better shopping experience with even greater customer service, while simultaneously promoting new forms of social activity. Perhaps this switch will come through something that has recently become an integral tool of 21st-century culture: the smartphone.
A current switch that has now led the shopping center model vulnerable to yet another evolution is the smartphone, which has completely changed the way people shop and socialize. In the past few years it has become an essential component to American lifestyle and culture even more quickly than the car, revolutionizing the way we live. Richard Florida best describes the magnitude of this switch by using an analogy of the time traveler. If someone were to be transported from 1950 to 1990, they would be amazed at the amount of technological innovation that took place, yet overall would not have trouble fitting in socially because people pretty much lived the same way. If someone were to be transported from 1990 to 2000, on the other hand, they may not be as impressed with the amount of technological innovation. “Yes, technology has surely advanced quite a bit, yet the same devices and tools, although in a much earlier form, were present in one way or another in 1950,” according to Wall. Instead, the time traveler would have a lot more trouble adjusting to social structures and the rhythms and patterns of daily life. In the last fifty years, these social dynamics have completely revolutionized the way we live. Richard Florida best describes this expanded definition of regionalism, that the smartphone arises as such a key switch. The smartphone is about how people want to live in the modern age, which Gruen completely missed the mark on, according to Wall, “The very aspects of the city that Gruen was trying to ‘fix’ were for Webber redundant and simply a hindrance to the merging idea of a ‘post-city,’ yet urban functions in the future.” The smartphone has the ability to define social and commercial networks to people, goods & information networked to people, goods & information on the local, regional & global scales; reduces spatial requirements for social and commercial functions; enables people to free themselves from the obsession with placeness and unless they can come to view the urban communities as spatially extensive, processual systems in which urbanites interact with other urbanites wherever they may be. For it is interaction, not place, that is the essence of the city and of city life.” It is within this expanded definition of regionalism, that the smartphone can be accepted as part of everyday common culture and commercial functions.

The smartphone brings both creativity and information directly into to everyone’s pocket. The smartphone is also regionalist by nature. According to architectural theorist Steven Moore, “technology is essentially a spatial concept because its operation depends upon the mobilization of human and nonhuman resources that exist in different places.” Essentially it can “mobilize” and “engage” the shared interests and dynamics of a region, and Moore would even argue that place and technology together are “core concepts upon which regionalist architecture depends.” Melvin Webber, another theorist, would also support the smartphone as a regionalist concept. He believes that regions, “profit from an orientation to communication patterns... settlements exist primarily as reflections of man’s efforts to increase opportunities for interaction. It then follows that both individual locational behavior and over-all spatial structure are mirrors of communications. With the changing patterns of communications that are imminent, then, we can expect that individual locational behavior and that over-all spatial structures will also change – possibly in very dramatic ways.” Smartphones specifically engage the communication patterns and opportunities for interaction that he discusses. Webber goes on to say that “metropolitan planners are not likely to keep abreast of these changes unless they are able to free themselves from the obsession with placeness and unless they can come to view the urban communities as spatially extensive, processual systems in which urbanites interact with other urbanites wherever they may be.” It is within this expanded definition of regionalism, that the smartphone arises as such a key switch. The smartphone is about how people want to live in the modern age, which Gruen completely missed the mark on, according to Wall, “The very aspects of the city that Gruen was trying to ‘fix’ were for Webber redundant and simply a hindrance to the merging idea of a ‘post-city,’ yet urban functions in the future. What was at issue was the size and nature of ‘centers.’” The smartphone has the ability to define social and commercial urban functions in the future. According to Florida, the “most enduring changes of our age are not technological, but economic, cultural, and geographic.” It is not the smartphone itself that is important, just as it wasn’t simply about the automobile in the mid-20th-century. It is instead about the way in which it changes our economic, cultural, and geographic system. In the end, “Place is still the central organizing unit of our time,” and technology will not change this core human organizer. This is why the smartphone cannot become a regional exchange in itself, but on the contrary, can become an extremely powerful switch.
The key qualities of the smartphone that can influence “interactivity and linkages” and opportunistically reorganize a whole regional system, such as the shopping center, include its mobility, cultural significance, adaptability, and social and commercial capabilities.

In terms of mobility, which is a quality shared by the automobile switch, the smartphone is small and always in its user’s pocket, making it extremely convenient and accessible. A significant portion of the U.S. population has these types of devices as they become less and less expensive, and their numbers are only increasing. The smartphone changes the way in which designers think about mobility completely, and this can be used as a design opportunity to evolve a regional exchange in ways never imaginable with just the automobile. The smartphone represents a brand new infrastructure of movement, unparalleled by the automobile or even high-speed rail.

Also similar to the automobile, the smartphone has gained high cultural significance, being accepted as part of everyday life. Traces of the smartphone, whether in apps or in scannable codes, can be found in businesses and advertisements almost everywhere. This places this everyday tool in a healthy position to have the power to reconstitute an organization. Like the automobile, it represents how people want to live and therefore when used intelligently as a design tool, it can be a powerful organizing agent.

The smartphone also actively engages new social and commercial capabilities. It is networked to people, goods and information on the local, regional and global scales, enabling the “information economy.” It connects you to friends, family and strangers in ways never before imaginable and allows you to buy goods from any location. It also notifies you of news and entertainment alerts according to your location. It can be used locally to make discoveries about new people or goods in your neighborhood, or regionally to meet a new potentially mate only a few miles away, or even nationally to chat about the next presidential election. The smartphone can be used as a spatial design opportunity because it reduces the spatial requirements for many social and commercial functions.

Finally, the smartphone is highly adaptable, perhaps even more than the automobile. The smartphone is flexible to changing needs and extremely intuitive. You use your fingertips to navigate it and can customize your screen however you like. It is simply an interface that changes based on whichever function, or “app,” you want to engage in at any given moment. Switches, like the smartphone, have to be accessible to the everyday person. Although there are many innovative and undiscovered ways to use this device, it is an easy tool for architects to pick up, because, regardless of their skill with it, they simply need to understand these basic traits and think of it simply how it can influence their daily lives. This is where its design potential comes into play: not in abstract, high-tech methods but instead in ways that the everyday person can understand. Because of these four main qualities, along with its regionalist nature as described by Webber, the smartphone can serve as an excellent switch and design tool.
According to Gruen, “The architect-planner’s most essential task is to make environments for transformative urban experiences, to create public space as a forum for social, cultural, and commercial exchange. . . . (The) role of the architect in the age of mass consumption, suburbanization, and mobility: given the increasing size and complexity of projects, the architect must be a communicator, manager, and interdisciplinary team leader.” The architect must embrace new modes of living within regions and use it to design innovative and responsive environments for people. “The undeclared goal is a city that reflects how a mobile consumer society wants to live rather than a modernization of traditional urban living patterns.” The smartphone is representative of a new mode of living and architects must embrace this rather than stick to their tools and methods of working in the past. “Driven by the search for spatial and economic advantage, the thousands of intersecting investment decisions have resulted in a form of self-organizing urban landscape that waxes and wanes according to market demands; it cannot be effectively engaged by fixed spatial and functional design codes.” The previous modes of designing will no longer work. In this context, the architect as an interdisciplinary team leader must evolve: “while remaining a generalist, he must take on a more entrepreneurial role. More and more, his task will not be to conceive and strategize space and built form, but to conceive and strategize forms of design, management, communication, and negotiation. Only by engaging the new urban landscape on its own terms, is it possible to produce the forms and spaces that will make it legible, usable, and urban yielding.” The new “terms” of regional design reside in the smartphone. Instead of yet another rejection towards the desired American lifestyle, if architects, this time around, can recognize and accept the smartphone as an evolutionary tool, then they can take a center role in designing the next major regional exchange.
FROM SHOPPING MALL TO APP INFO-STRUCTURE: THE SMARTPHONE DISCOVERY

How Can Architects Multiply the Regional Shopping Center by the Smartphone Switch?

When the mobility of the smartphone is applied to the social and commercial functions of the regional shopping center, it begins to break down the need for this large suburban complex. The smartphone can serve as both a forum for shopping and people-to-people interaction anytime, anywhere. Therefore, its mobility frees up possibilities to the siting of a new regional exchange, if it even needs a site at all. This quality, combined with a desire for real places, frees up the new regional exchange to be sited either back in downtown urban cores, still in the suburban landscape, or in a new place or series of places completely.

When the cultural significance quality of the smartphone is applied to the social and commercial functions of the shopping center, it allows the regional exchange of the future to reach an even wider audience at a faster rate than the exchange of the past. If applied correctly, the regional exchange of the future can be met with less resistance.

Applying the new social and commercial capabilities brought about by the smartphone allows the exchange of the future to not just support established brands but to also give an equal opportunity to local startups. The smartphone allows shopping and socializing to be done at the scale of a neighborhood to the scale of a region to even that of the global. The smartphone creates new local "scenes" that support local business. For instance, in Saratoga Springs Bradley diner describes, "cash-mobs," where, like a flash-mob, a virtual group of people team up and raid a specified local store on a given day in order to bring it business. This is all planned virtually, yet the "scene" occurs in a real place. It creates different social dynamics in which people can communicate either through writing, voice, visuals or a combination of the three, creating new forums of interaction. With shopping, efficiency can be achieved by both the seller and the buyer. The seller is able to locate their store virtually in the pockets of every single person, regardless of their size, and the buyer has instant access to any store, having the choice to receive an item or to send it somewhere else before he or she even touches it. As more and more of the population

Learning from the way in which the automobile switch was able to evolve the main street regional exchange into the regional shopping center exchange, the strategy proposed here for further evolution will take the design criteria defined by the smartphone to evolve these same social and commercial functions further into a new exchange. The design process must be sensitive to the new lifestyle modes previously outlined, while at the same time using the smartphone switch as the central, catalyzing tool of the architect. Synthesizing these factors will lead to the development of a design manifestation that can be argued as the regional exchange of the future.
owns a smartphone, needs change for certain spaces, outdating some, such as an electronics store, and bringing new significance to others, such as the third and fourth places described by Florida above.

When the quality of smartphone adaptability is applied to the social and commercial functions of the regional shopping center, it presents the regional exchange of the future to have the opportunity to be more intuitive and responsive to people’s needs and the way in which those needs constantly change. The “app” infrastructure that has become adopted by the smartphone helps to clearly divide and define separate functions in order to provide a seamless user experience of convenience and satisfaction. Its intuitive nature allows people to understand new ways of engaging in these functions fairly quickly, giving architects an opportunity to test new design ideas, while also plugging into the design frameworks in the “apps” that already exist.

There are many ways to apply these four key smartphone qualities to the social and commercial regional exchange of the future. If architects embrace lifestyle trends enabled by this device, they can begin to take control of the organization and guide its evolution. This is where a new exchange, like the App Info-Structure, can result.
In order to test the smartphone as a switch to evolve the shopping mall into the next regional exchange, the following design proposal will specifically imagine the App Info-Structure within the Central New York Region.

The CNY Region has undergone very similar lifestyle changes as previously discussed. Although the region struggled after World War II, it has been able to turn the corner in recent years, with its population decline stabilizing. Many young professionals, artists, retirees and new people are rediscovering the area as an excellent place to live, work, and play. The demand for downtown living in the city of Syracuse continues to grow and neighborhood walkability is being increased. In viewing the city opportunistically, Mark Robbins, former Dean of the Syracuse University School of Architecture, argues that its best assets are its vacant lots and empty buildings. He feels that, The draw is that acquisition cost is less for real estate and that you have the potential to rebuild and to re-inhabit pieces of the city that haven’t been used. That is a very real asset... Buffalo has fabulous architecture but its population dropped. Like Detroit, it’s a much bigger void to fill, and ours isn’t... We talk about shrinking cities. We’re actually not a shrinking city. We’re stabilized. But we are in the midst of reconfiguring how we use our assets, how we use the city. Syracuse and its greater region has a lot of potential assets that can be activated by the smartphone in the context of social and commercial functions. A new regional exchange’s effect could be powerful, because, in the words of Mark Robbins, “a single investment, (can have) multiple positive outcomes.” The Central New York Region is a rich place to test out the App Info-Structure and find a real space for a virtual switch. Because after all, “people really like going to places....a destination,” regardless of what technology comes their way.

The best way to appropriately apply the smartphone switch to a real region is to use the specific social and commercial “beliefs and dynamics” unique to that region. As previously outlined, the CNY Region’s unique commercial interests include its transportation crossroads, artisan economy, and medical, educational, agricultural industries. Its unique social interests are its diversity, open-mindedness and ambition. When multiplied by the four key design criteria of the smartphone -- mobility, cultural significance, social and commercial capabilities and adaptability -- the App Info-Structure will begin to take shape.

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Returning to the primary contention, if the automobile was able to evolve the organization of Main Street into the Shopping Mall, then the smartphone can evolve the Shopping Mall into the App Info-Structure. These switches can and have brought about monumental change, while being in direct correlation with the changing ways in which people want to live. This is most clearly seen in the architecture of the regional exchange. While the automobile created the shopping center exchange and the developer held the reins, this proposal calls for the smartphone to create the information exchange with the architects in the driver’s seat. Architecture is the discipline of designing the built environment, yet for too long, it has neglected the realities of the built environment and instead focused on designing for the 2%, loosing its relevance in the process. The ensuing design manifestation represents the next chapter of the Syracuse Shopping Center 194X project, 70 years later. It is a vision for a place that will become the regional center of 21st-century social and commercial interaction. Perhaps this time, architects will take the center role in designing it. The ensuing proposal for “App Info-Structure” serves as an experiment and example in how architects can begin to use the smartphone switch to design the next regional exchange....
Understanding “Information Space”...

“App Info-Structure,” is a desired-based, information infrastructure replacing the intercity highway network. This regional operating system is completely derived from an understanding of the smartphone and the way in which people use it.
The study that ensues attempts to directly relate different ways of accessing information on the smartphone to ways these information processes could be architecturally and spatially applied and experienced through a new information infrastructure replacing the highway.
Note that the three current leading smartphone operating systems (iOS, Android and Windows) were each given equal priority in this info-spatial discovery process.
Create custom social network rooms. Share information between one user account and another.

“Open Store app”
Ideas on Information Space...

The collection of projects shown here all represent ways in which information has already been spatialized by contemporary architects. Some even show how the smartphone can be integrated into architectural applications. Many are currently tackling this realm, and the Info-Structure proposal is situated in this context.
Spatial Qualities of the Smartphone

Key Architectural Inspiration: The App

Like the smartphone, this infrastructure is based around the design of “apps,” sequences of instructions that each execute singular functions. This is in direct response to some sort of desire of the user. On the smartphone, this may mean checking the weather, reading news updates or writing a reminder. For App Info-Structure, it could consist of responding to hunger, the need for a group meeting space or even the hosting of a celebration.

App (“Space”):
a sequence of instructions that executes a singular function or provides specialized information, as part of a larger mobile operating system.
The smartphone is essentially a small, simple piece of hardware that through its app-centric, adaptable software, can fulfill an endless amount of desires for its single user. Perhaps the Regional Exchange of the future could follow this model, consisting of small, flexible, spatial apps produced through a combination of physical and digitally projected material. Their individual design within the greater regional operating framework could fulfill an endless amount of desires for not just one user but a whole urban community of users. Could this respond to the interests and dynamics of a region more intimately and directly than Main Street or the Shopping Mall?
The Experiment: An Intra-City Highway Interface

With a specific focus on its potential manifestation in the Central New York Region and in Syracuse replacing Highway 81, App Info-Structure serves as an experiment in how information networks and other virtual systems sparked by the smartphone could play a role in the design of the next Exchange.

The basis of this proposal consists of replacing the existing interstate highway infrastructure network. This network was designed for an outdated lifestyle and is no longer able to meet the accessibility needs of the 21st century. Most highways need to be re-surfaced or replaced every fifteen years anyway, many currently being in an unacceptable state of disrepair.

Across American cities, these highways serve as urban infrastructural barriers and are sites adverse to place and livability. By replacing this network with the App Info-Structure, can these sites turn from urban barriers to urban interfaces? Unlike the phone, which is an interface between a person and information, this community interface would be between groups of citizens using the architectural apps and the information activities they inspire as the facilitators. This is an ideal site of the next Regional Exchange, a built environment that organizes a region and is integral to its "interests and dynamics."
In this image above of Syracuse, Highway 81 divides three primary sections of the city: downtown, the greater university area and the Northside residential neighborhood. On the right is a sketch study in how starting to activate this infrastructural site through architecture might occur.

The Main Street Exchange could not accommodate a large, efficient consumer culture. The Shopping Mall could not provide place and livability. App Info-Structure, on the other hand, could provide both. Using the existing highway framework, it can easily plug into the larger capitalist network in a way Main Street never could. Using its unique position as an intra-city urban interface, it can provide a level of place and livability that the Shopping Mall never could.
App Info-Structure facilitates a desire-centric development pattern, an alternative to conventional city blocks that has been in use for the past few centuries. Directly to the right, different desires, such as hunger, play, or shopping, are shown at the core of this new urban condition.

The far right series of diagrams on the right begin to show how this would actually manifest itself in Syracuse. First, the highway is removed. The new smartgrid development pattern replaces this void and will serve as the base for new urban development at this site. It essentially starts to stitch the urban fabric. Although the physical material of the architectural apps cannot be sited on streets, their projected material can command this space. This is important in establishing the continuity of this exchange. This projected material can also fill the vacant lots that surround the highway. So although these lots are not being freed up for physical construction by simply just removing the highway, their space can still be commanded by the Info-Structure through virtual means, enforcing this urban stitch condition. And finally, above the smartgrid, a new infrastructure is built to transport these apps, these desires, in and out of the city. The final in the series shows the new infrastructure’s profile in comparison to the highway. Efforts were made to minimize it and prevent it from becoming yet another barrier.
Going more specifically into detail on how it works, it starts with a collective set of individual desires. The people throughout the city are users. A growing number of users share a certain desire, such as to hold a group meeting.

The Info-Structure transports a “Group Think” app, a 30x30x20 foot physical structure, into the city and places it anywhere along the infrastructure interface. The app is lowered down on a pulley system similar to what we know today as used in automated car parking systems. Wheels below the app can then move it along grid to a certain spot.
On the right, multiple instances of this is shown, where each filled square on the grid represents an architectural app. So in the example of the Group Think app, it is placed in a location that is in closest proximity to the greatest number of users from the original group that set this app into motion. Users can now transport themselves to this app (walk, bike, new street cars, etc.) and, once there, are now in the realm of this new exchange.

The Group Think app probably only starts by taking up a single plot (see left diagram series), but as more and more users desire the app, it can grow using digital/projected means. The virtually projected think tanks grow out of the physical think tanks in the core of the app both horizontally and vertically. There is a limit to this growth, in which case, another Group Think app may be placed somewhere else in the development field.
Collective Desires: Usership Growth & Decline

Apps grow and shrink based on user-ship levels. The diagram series on this page shows how these apps grow and interact with each other through virtual means, first in plan and then below in section. Its a dynamic marketplace always changing to meet desires. Multiples of the same app, such as Group Think, occur not just because of the app’s growth limits, but also because there may be two geographically separate concentrations of users desiring the app, making sense to launch another Group Think app in another location. Also, not all Group Think apps are the same, so there may be different users who may be directed towards a certain Group Think app due to their own unique desires. It should be noted that apps can also interact with other apps, as seen on the upper right, which influences their spatial parameters.

On the right is a diagram set of the larger effects of this system, with simply the physical material of the collection of app structures in the left diagram, and then the projected/optical effects in the right.
Spatial Efficiency

The diagram on this page shows the spatial efficiency of the app. It being smaller than a Main Street retail shop yet having the ability to “do” as much, if not more, than a big box superstore through its virtual growth and interaction with other apps.

Also it should be noted that if the user base for a certain app/desire is diminished, the app is picked up from the infrastructure and moved off to another city, as shown on the opposite page. In a way, it is the ultimate sustainable system, architecture leaving immediately after there is no longer a need for it.

On the next page spread, again on the left is the collection of these apps in the heart of Syracuse. In the middle image, the space commanded by virtual means is then shown. And then finally in the right image, vacant lots surrounding highway are getting filled by this Info-Structure.
This diagram sums it up. This page shows the operating system turned on, the full effect of the architecture through a combination of physical and virtual means. And then on the opposite page, shown is simply the physical. It is not much.
Going further into detail, the new physical infrastructure is bringing the apps, suspended sixty feet in the air, in and out of the city. In the upper right of the drawing on this page, a celebrate app is being lowered onto the smartgrid. In the foreground, a red hunger app and yellow group think app are already in place and in use. Also note that this infrastructure is inhabitable on its top surface.

The three apps just introduced: Hunger, Group Think, and Celebrate, serve as examples of three of perhaps thousands of different types of apps that would exist as part of the Info-Structure. They are examples of what a developer could perhaps construct to meet a certain desire, such as hunger. Other potential apps could be one's for shopping, playing, or perhaps even sleeping. Regardless, the one's discussed here are simply to help show how this system could work. The particulars of their individual design isn't the primary focus. They have each been developed by understanding their specific desire as a sequence of instructions or experiences, going back directly to the definition of an app.
On this page spread, the "code" is illustrated for each. For instance, the sequence for hunger: food production, preparation, ordering, browsing then sitting and eating. One may go through this sequence from start to finish. Or one may jump around; such as only simply browsing for food and then eating it, the last two parts of the sequence. This experience would be similar to going to the grocery store to browse ready-made food and then going home to eat it. Note that the different components for the sequence are shaded differently based on whether or not physical architecture is needed to complete the task.
The Physical vs. The Virtual

This is especially important in the design of the app. The physical 30 x 30 foot structure of each app is shown here on top and then the projected material is shown directly below.

For instance, one doesn’t need physical architecture to order food, one can do that virtually on something like a smartphone. However, one does need physical architecture to produce or cook food, and, therefore, these functions are incorporated into the design of the physical material of the app. Then there are functions such as sitting and eating, which are placed in a muddy realm of not necessarily being dependent on having physical architecture, and therefore in the app, different projected materials and optical effects help to create this experience.
Group Think App Concept

The Group Think app will be used as an example to help show further how the physical and projected material works (although the other two apps will also be shown to see additional examples).

To reiterate, the Group Think app represents the desire to hold a group meeting, whether for work, school or play. It’s a collection of physical think tanks that can project outwards virtually to gather external groups of people for each individual tank. Internally, there is also interaction and synergy between all of the active think tanks in an interesting physical-virtual experience space.
The Physical Material

The drawing on the opposite page sheds specific focus on the physical material within the app necessary to fulfill the functions of the desire, such as structure, the actual physical think tanks, stairways, shock absorbers when it lands, etc.

Primary Structure
Vertical Think Tanks
Central Think Space
Shock Absorbers
Near-Range Transport System
Seating
In terms of the virtual, this occurs in three ways, with this criteria being consistent among any app. First, to define space internally, digital windows or mist projection screens are used. A digital window allows a glass surface or door to contain interactive information while still maintaining its transparent quality. This is used in the think tanks of the Group Think app. A mist projection screen, not specifically used in Group Think, is essentially a normal projection of light along a stream of mist water. Whereas normally one would only see the surface that the projection hits, the mist projection screen allows a full surface or wall to be defined by the full stream of the projection.
To define external space, holographic projections are used as the second instance of the virtual. A holographic projection produces vivid three-dimensional objects between a viewer and the projection source. The interesting spatial quality of a holographic projection is that once one moves past or out of sight of the projection source, the 3D object (or architecture) is no longer visible.

For instance, in Group Think, one perceives the external think tanks expanding outwards from the core architecture, however as one walks up to this meeting room and the projection source, the 3D architecture fades behind him or her. When one reaches the individual, physical meeting room and then turns around to look back to where he or she came from, all one would see is a collection of people communally participating in the Group Think App for different thought sessions. The virtual architecture essentially vanishes. The effect is that people gather for a specific individual or small-interested group desire, such as a meeting for the writer's club. However, as an urban community, one is simply gathering to participate in a larger set of “group thinking.” The more individualized interests, such as talking about a new poem one wrote, are at the same time part of a more collective community experience.

The final instance of the virtual is through augmented reality glasses. These serve the purpose of expanding the external holographic projections beyond simply just framing space and allow information to be layered on these projections, such as an interactive board to collect thoughts on an individual's new poem.
Brining people more clearly into the apps, on the opposite page, Group Think sits below the Info-Structure with people using both the physical and virtual architecture to engage in their individual, yet also collective think sessions. On this page, the interior space of Group Think is shown above, with the different think tanks interacting with each other. The digital windows help to create this interesting info-spatial interaction among the tanks. Below, a think tank organizer in the physical space looks out at the crowd of people gather for group thought sections. He cannot see the holographic architecture that is gathering the groups of people to individual tanks.
On this page spread, the Hunger App is shown, with food being produced on the physical architecture core and then people browsing and interacting with information on the external holographic projections using their glasses.
Finally the Celebrate app. Different types of celebrations are being framed on different sides of the app by holographic projections, special-interest parties that are only part of a more communal, local desire to celebrate. In the final bottom image, people are taking a break from the party inside one of the honeycombs of the physical structure. They can see a collective group of people gathering to celebrate, but can no longer distinguish the individual-interest parties occurring.
The Overlap

The apps can also overlap with each other as their specific desires start to merge with other desires. What if there was a group think session regarding hunger in cities? Or if a group meeting for work wished to go on a lunch break and eat? When the sequences of these desires start to overlap, interesting spatial conditions occur.
More specifically, above the Group Think app is next to the Hunger app. When the desire sequences start to merge, such as wanting to host a meeting that deals with hunger, a condition like what is shown below occurs, with the orange coloring showing the even more collective nature of this urban Info-Structure through these overlap conditions.

In the image on the right, people are gathering in the collective space of the Group Think and Hunger apps to participate in a meeting on the nutritional facts in a new local product.
Long-Range Vacant Lot Projection

These apps can also command the space of vacant lots surrounding the highway up until their projections reach the built fabric. Shown here is the Hunger app, with a large crowd of people gathering in the vacant lot to watch a new documentary on food in Italy.
App Info-Structure Significance

In conclusion, once again is shown how the App Info-Structure would manifest itself at the site of Highway 81 in Syracuse. The apps are growing virtually overtime and stitching together the currently segregated sections of the city. The vacant lots surrounding the highway getting filled with the virtual projections of the Info-Structure.
To reiterate, the App Info-Structure can be experienced both at the street level entering the various apps (shown on this page) or also on top of the Info-Structure (shown opposite). The top of the Info-Structure would otherwise be an unused space. The experience of walking on top of the infrastructure would be similar to that of the Highline Park in New York City. One would experience this now both physical and virtual city of desires in a very linear way. It would be a snapshot of the urban condition that one can then go down and experience in a more dynamic way. The virtually projected city fabric would be constantly-changing as the different desires of the city and its people change over time.
The significance of this exchange proposal is multifaceted. It calls for an architectural program that is more responsive to its user-group’s needs. It questions the relationship of architecture to its context. It comments on spatial efficiency and how much physical material is actually needed to produce the intended effect. It argues for a more sustainable architecture that only exists for the time it is needed. Lastly, and most importantly, it explores the role of information and “the digital” in informing the next Regional Exchange, whatever it may be.


(All scanned images or basic drawing files are taken from the above sources, Google Search, Bing Search, Google Maps and Bing Maps.)