

**Creating the City:  
Toward 21st-Century Production in Brooklyn, NY**

by

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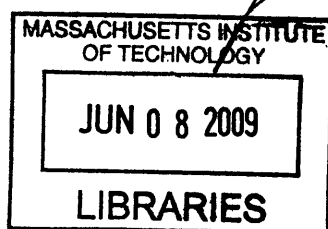
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## **ABSTRACT**

In the past decade, the *creative city* discourse has pulsed with activity, with academics, policy wonks, national organizations, and community non-profits attempting to find footholds in the conversation. By applying the lessons of 20th-century industrial complexes, or “technopoles,” to a new conception of production in the 21st century, city builders, planners, and business developers tackle the new role of fitting the commercial creative sector into Castells’s ‘networks’ and this creative city discourse, in order to generate innovation in the creative city. The thesis aims to closely examine the role that for-profit creative production now plays in the 21st century urban economic engine and the ways in which synergy may be created by and among many individual creative firms in the city.

The thesis uses the borough of Brooklyn, in New York City, as a case and example of how to go about supporting new kinds of urban creative clusters. The thesis proposes principles, guidelines, and an approach to cluster development, not as a universal solution for currently uncoordinated clustering, but as a place-based example for applying the principles of this thesis.

I will review the evolution of 21st-century production and the emergence of the creative economy, including the case for locating creative production centers in metropolitan locales, in order to illustrate the shape of the new production landscape in the creative city. I next present a framework for organizing and developing a 21st-century creative cluster, and outline fourteen key ingredients to their development. Finally, I apply this framework to a creative-cluster development strategy in Brooklyn, identifying three possible areas of intervention where creative firms already operate, and propose a public-private management entity structure to provide the necessary synergistic ‘glue.’

Thesis Supervisor: Dennis Frenchman

Title: Leventhal Professor of Architecture and Planning

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CJC

*A note: this paper was written in many of the coffee shops, cafes, and other 'third places' in Cambridge and Boston; please tip your barista.*

## TABLE OF CONTENTS

|   |           |
|---|-----------|
| <b>CHAPTER 1</b>  | <b>6</b>  |
| <b>INTRODUCTION</b>   | <b>6</b>  |
| 21ST-CENTURY PRODUCTION .....                                   | 7         |
| TECHNOPOLES OF THE WORLD .....                                  | 8         |
| SYNERGY .....   | 9         |
| NEW CENTURY CITIES .....  | 9         |
| CHASING THE CREATIVE CLASS .....                                | 11        |
| ARTS AND PROFIT IN THE CREATIVE CITY .....                      | 12        |
| POLICY AND DEVELOPMENT FOR THE CREATIVE CITY .....              | 13        |
| <b>CHAPTER 2</b>  | <b>16</b> |
| <b>21ST CENTURY PRODUCTION IN THE CREATIVE ECONOMY</b>          | <b>16</b> |
| INTRODUCTION: THE EVOLUTION OF POSTFORDIST PRODUCTION .....     | 16        |
| CASE STUDIES .....  | 17        |
| CREATIVE PRODUCTION IN THE CITY .....                           | 18        |
| THE NEW SPACES OF PRODUCTION .....                              | 20        |
| IMPORTANCE OF NETWORKS .....                                    | 22        |
| THE PRODUCTION-COMPETITION MATRIX .....                         | 24        |
| LOCAL PRODUCTION; GLOBAL CONSUMPTION .....                      | 25        |
| NEGATIVE SPILLOVERS .....                                       | 25        |
| A POLICY IMPERATIVE .....                                       | 26        |
| <b>CHAPTER 3</b>  | <b>30</b> |
| <b>NEW POLES OF PRODUCTION</b>                                  | <b>30</b> |
| FRAMEWORK FOR DEVELOPMENT OF CREATIVE PRODUCTION CLUSTERS ..... | 30        |
| MAKING IT IN BROOKLYN .....                                     | 37        |
| <b>CHAPTER 4</b>  | <b>40</b> |
| <b>CREATIVE BROOKLYN</b>  | <b>40</b> |
| PRODUCTIVE BROOKLYN .....                                       | 40        |
| STRATEGY: AN INTRODUCTION .....                                 | 42        |
| STRATEGY: APPLICATION .....                                     | 43        |

|   |           |
|---|-----------|
| <b>CHAPTER 5</b>  | <b>63</b> |
| <b>CONCLUSION</b>   | <b>63</b> |
| <b>EPILOGUE: NOTES ON LIMITATIONS AND AREAS FOR FURTHER RESEARCH.....</b> | <b>64</b> |

# CHAPTER 1

## Introduction

American cities are trying to get creative. In the past decade, the *creative city* discourse has pulsed with activity: academics, including planners, geographers, and economists – all attempting to define and quantify the impact of creative industries in cities; policy wonks proposing “Cool Cities” to stop urban brain drain; national organizations advocating for the arts; and scrappy community non-profits trying to please their boards.

Manuel Castells and Peter Hall wrote that, in the generation of innovation and creativity, the archetypical places consisted of “networks connecting individuals in many different organizations...within a system that encourages the free flow of information and, through this, the generation of innovation” (Castells and Hall, 1994). By applying the lessons of 20th-century industrial complexes to a new conception of production in the 21st century, city builders, planners, and business developers tackle the new role of fitting the commercial creative sector into Castells’s ‘networks’ to generate innovation in the creative city. The thesis aims to closely examine the role that for-profit creative production now plays in the 21st century urban economic engine and the ways in which *synergy* may be created by and among many individual creative firms in the city.

The thesis uses the borough of Brooklyn, in New York City, as a case and example of how to go about supporting new kinds of urban creative clusters. Brooklyn serves as a model area that both benefits from an extant creative economy, and whose creative firms would benefit greatly from new organization, synergy, and collaboration. Brooklyn doesn’t suffer from want of a market or demand; it is located only a subway stop away from Manhattan.

The thesis proposes principles, guidelines, and an approach to cluster development, not as a universal solution, but as an example. Indeed, the nature of creative industry in the city is that its character is unique in every locale. Brooklyn provides a place-based example for application of the principles of this thesis.

Chapter Two reviews the evolution of 21st-century production and the emergence of the creative economy. The thesis will also make the case for locating creative production centers in metropolitan locales. The thesis uses two case studies, of Vancouver, British Columbia, and Hollywood, California, to illustrate the shape of the new production landscape in the creative city. Chapter Three presents a framework for organizing and developing a 21st-century creative cluster, and outlines fourteen key ingredients to their development. Chapter Four applies this framework to a creative-cluster development strategy in Brooklyn, identifying three possible areas of intervention where creative firms already operate, and proposing a public-private management entity structure to provide the necessary synergistic ‘glue.’ Finally, Chapter Five will review broad conclusions and implications for implementation of the strategy, as well as the challenges and limitations faced in this research.

### ***21st-Century Production***

The interest in creative industries has resulted in part from the rapid loss of traditional industries in urban centers, particularly over the last forty years, and the ensuing decentralization of manufacturing. As manufacturing has moved away from traditional city centers, knowledge-based industry has taken its place. Castells and Hall described this process and the surge of the knowledge economy as “three contemporary economic revolutions”: the emergence of new technologies, a highly globalized economy, and informational forms of production (Castells and Hall, 1994).

Encouragement of specialized districts or clusters, while not a new concept, has increasingly gained favor in the knowledge-based and creative industries as a way for cities to restore their job and tax bases. Traditional urban industrial districts, as originally described by Alfred Marshall, were small-scale manufacturing clusters where many specialized producers grouped together to enhance their performance – despite their small scale – thanks to long-term relationships, shared expertise, proximity, and flexible labor

markets (Marshall, 1919). After the Second World War, Italy's textile-making industrial districts in the Emilia-Romagna region (which, located neither in Italy's more famous North nor South, is known as Third Italy) became renowned for the success of so-called 'flexible specialization' in manufacturing (Piore and Sabel, 1984, Scott, 1988b). Adapting to the new knowledge-based economy, flexible specialization met the need for "horizontal networks" of organization and production (Castells and Hall, 1994).

### ***Technopoles of the World***

The growth and success of new kinds of 20<sup>th</sup> century industrial clusters in places like Southern California, where military research and development firms clustered, and Silicon Valley, where the digital technology revolution thrived, as well as technology parks at Sophia Antipolis, France, and Cambridge, Massachusetts, are hailed as examples of successful knowledge-economy clustering. In their landmark book, *Technopoles of the World: The Making of 21st Century Industrial Complexes*, Castells and Hall chart the roots of success of several of these classic examples of the technology-based industrial parks, or "technopoles" (a word borrowed from French).

Based upon these premises and studies of planned and existing technopoles built in the 1960s through 1990s, Castells and Hall attempt to summarize the preconditions for successful innovation-based development. A key finding is that three motives drive formulation of technopole policy: reindustrialization, regional development, and creation of synergy (Castells and Hall, 1994). The first, reindustrialization, relates to Joseph Schumpeter's concept of creative destruction (Schumpeter, 1942), which describes the process by which a regional economy retreats from dwindling industries and replaces them with new businesses. Castells and Hall proposes that this process could in fact be planned in advance, in the form of technopole development, to head off economic contraction. Neighboring localities with regional development motives can use incentives (and disincentives) to encourage location decisions for innovative firms participating in the new industries. In order to construct these new industries, the critical element – *synergy* – is created through heightened human interaction (Castells and Hall, 1994).



## ***Synergy***

Castells and Hall conclude that synergy is the basis for, as they termed it, “that pregnant but elusive concept, milieu of innovation.” They described such milieux as places that fuel synergy:

By milieu of innovation we understand the social, institutional, organizational, economic, and territorial structures that *create the conditions for the continuous generation of synergy* and its investment in a process of production that results from this very synergistic capacity, both for the units of production that are part of the milieu and for the milieu as a whole. (Castells and Hall, 1994)

Further, to explain how developments organize around such synergistic capacity, the authors set forth a clear understanding of synergy as result of cross-pollinating networks of innovation:

...synergy is very often seen in terms of networks connecting individuals in many different organizations – public and semi-public and private, non-profit and for-profit, large-scale and small-scale – within a system that encourages the free flow of information and, through this, the generation of innovation. (Castells and Hall, 1994)

Silicon Valley is the “the archetype of the innovative milieu” under the Castells and Hall analysis, and its success is lauded as an example for city-builders. And indeed, following on Castells and Hall, municipal governments and city planners around the world have attempted to replicate the success of technopoles in new developments such as “one-north,” an “intelligent” planned new town centered on biomedicine, multimedia and technology in Singapore (Wong and Bunnell, 2006); and redevelopment of older neighborhoods like Arabianranta – once the historic center of Helsinki, now refashioned as an artistic and technological innovation center there (Gabbe, 2006).

## ***New Century Cities***

Increasingly, as with one-north and Arabianranta, contemporary technopole developments center on a dynamic relationship between living and working, with technology the intermediary between them. Such developments are different from the first generation of technopoles that Castells described in that, far from being simple clusters of new industrial production, they are conceived as social clusters while developing new

culture, social, living, and learning spaces as well as production facilities. Termed *New Century Cities* by MIT researchers Michael Joroff and Dennis Frenchman (Joroff *et al.*, 2008), these 21st-century technopoles distill the key lessons of synergy generation in milieux of innovation in order to pursue, in a brand-new way, the three motives of 1960s-1990s technopole developments: reindustrialization, regional development, and synergy. Much like their predecessors, these developments are “driven by inter-organizational and crossindustry collaboration, open systems for R&D, and workers who have the aptitudes and skills required by the networked, knowledge economy of the future” (Joroff *et al.*, 2008). For example, the master plan of one-north “seeks to create an ‘intellectually stimulating and creative physical environment where a critical mass of talents, entrepreneurs, scientists and researchers would congregate, exchange ideas and interact” (Wong and Bunnell, 2006). On the other hand, Sophia Antipolis is just an industrial park, as were many of the technopoles in Castells’s book. In the 20th-century technopole, there were no ‘third’ social spaces for the culture of innovation to flourish.



*The Singapore Civic & Culture Centre at one-north by Aedas. Images: Aedas*

Yet the New Century City (NCC) has also evolved greatly from 20th-century technopole. As Joroff *et al.* describe them:

Strategic visions, not concrete plans, guide their development. They explicitly seek to leverage the synergies between learning, living and working through physical design and information and communications infrastructures. NCC are launched as tests, rehearsals, and probes even as plans and agreements for implementation evolve. Instead of following a ‘learn and launch’ model, NCCs ‘launch and learn.’ They proceed with the assumption that their development is never finished; consequently, their

structure and management is designed to be nimble – capable of changing as the economic and social milieu evolves. (Joroff *et al.*, 2008)

A key distinguishing feature at Arabianranta is its extensive 'Virtual Village' network linking all residents by apartment building, and with each other. The Virtual Village allows planners to collect feedback from residents and businesses. In addition, Arabianranta was the first neighborhood in Helsinki to test a percent-for-art program to fund public art using a portion of development costs (Gabbe, 2006). These examples demonstrate the new concept of synergy in 21st-century technopoles: synergy emerges not only from idea exchange and interaction, but also from the risk-taking, evolving environments that create opportunities for idea exchange.



Left: The historic Arabia pottery factory building at Arabianranta, Helsinki, mixes with new buildings and uses. Above: Housing types at Arabianranta. Photo sources: flickr.com user zinjixmaggir (left), Jaakko Vähämäki (above)

### ***Chasing the Creative Class***

A parallel discourse, describing the increasing significance of the creative economy in cities, escalated with the 2002 publication of Richard Florida's *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community, and Everyday Life*. Florida

argued that in the new knowledge economy, cities rely on a new class of people – the creative class – to be economic generators, and defined the creative class broadly, comprising occupations as diverse as artists and designers; professional athletes and entertainers; and lawyers and doctors, among other professions. In order for cities to compete regionally (and nationally), Florida argued, they must learn how to attract the creative class. (Florida, 2002)

While Florida's argument has been widely critiqued for defining the creative class too broadly, ignoring those without college degrees in his estimation of them, and using fuzzy data (Glaeser, 2005, Markusen, 2006, Stern and Seifert, 2007), *The Rise of the Creative Class* has since served to bring national attention to the economic power of the people working in creative industries, their profit-generating multiplier effects, and the importance of urban amenities to sustaining a creative economy. This shift was notable in providing a socially based focus on the creative economy, rather than an organization-based one. Following the book's publication, city mayors began to adopt pro-creative class policies to ensure their cities were viewed as tolerant (to satisfy Florida's 'gay index,' a measure of openness to creative class denizens), and populated with coffee shops. Cities and policymakers also began to attempt tracking the amenities offered in urban areas, in order to approximate a measure of 'creative-friendliness' in combination with production (Clark, 2004, Markusen, 2006).

### ***Arts and Profit in the Creative City***

The concept of creative-sector economic development is not new, Southern California's entertainment industry began in Hollywood nearly a century ago and has swelled to comprise scores of industries beyond filmmaking (e.g., set design, post-production, lighting, and animation), as well as neighborhoods outside of Hollywood (e.g., Burbank and Santa Monica). However, popular attention has nonetheless focused on the contribution of regional anchor arts organizations and museums (such as opera houses and regional art museums), or banner non-profit arts organizations that represent the whole of the 'arts' – denoting collectively the visual, performing, language, film, design and architecture disciplines, and entertainment, among others. Assuming such arts organizations and firms can encompass the interests of such a diverse set of players is a

gamble; even more so is the likelihood of leaving self-identifying ‘creative’ workers out of the equation, such that they will not be counted by policymakers or included in studies on creative economic impact (for example, video-game designers and manufacturers are considered by many to take part in the ‘creative economy’). It is thus difficult to accurately identify and study creative workers without clear agreement on the definition of the extent of the industry. Ultimately, less attention has been given to the role of for-profit (commercial) creative businesses and the people who work at or own them.

In addition, the causal relationship between the creative economy and economic development is not yet fully understood. Ann Markusen, director of the Project on Regional and Industrial Economics at the University of Minnesota, argues that there is a problem, generally, with proposing causal relationships between culture (or creativity) and development. Many studies use economic impact valuations, which rely on questionable underlying assumptions, in order to prove the relationship. For instance, Markusen argues, such studies overestimate the measured economic impacts – the extent to which a creative driver generates jobs, tax revenue, and expenditure. They simultaneously underestimate the substitution effect – that is, of consumers in the creative economy who are simply spending money they might be spending elsewhere, rather than generating new expenditures. Further, creative-economy cheerleaders are quick to correlate high concentrations of creative industry to positive economic effects, without rigorously testing the mathematical and economic assumptions behind such correlations. In short, city planners need a way to test and measure the effectiveness of cities’ creative industry policies before blindly trusting the existing theories and data (Markusen, 2008).

### ***Policy and Development for the Creative City***

Policymakers may be getting it wrong in creative-city policy, as a result of the lack of clarity about who the label ‘creative class’ identifies, as well as a misunderstanding (or dearth of data) about the causal relationship between the creative sector and economic development. Mayors focusing on major local nonprofit organizations rather than trying to foster local creative business activity are merely “waving the banner of creativity...to showcase their anchor arts institutions and make claims about urban amenities, mostly directed at tourists” (Markusen, 2006).

While economic impact is hard to measure, and the creative players difficult to distinguish, most observers agree that the real drivers of innovation and investment in cities are private firms, although many collaborate with the non-profit institutions. Unlike non-profit institutions, they also provide the city with tax revenues. The economic impact that results from commercial creative-sector activity may not be precisely measurable; however, the lack of data and attention reveals an opportunity for cities to make a coordinated intervention on behalf of this important tax and expenditure base.

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## CHAPTER 2

### 21st Century Production in the Creative Economy

#### *Introduction: The Evolution of Postfordist Production*

Urban manufacturing has changed a great deal in the past forty years. The restructuring of industrial manufacturing sectors in the United States, the combined result of economic crisis and globalization, led to rapid relocation and decentralization of traditional mass-production industries away from their traditional homes in central areas of cities. As a result, as many urban economies dwindled, these effects were only worsened by the attendant spatial and social impacts of plant closures (Scott, 2002).

Simultaneous with the urban exodus of industrial production, the advent of communication technologies and innovative production techniques diminished the relevance of Fordist mass production. Henry Ford's popularization of large-scale mass production of automobiles in the beginning of the twentieth century marked the dawn of Fordism, a term that had come to describe assembly-line mass production of capitalist goods. Fordism saw its heyday during the 1920s through 1970s, when American productivity reached its highest levels since the industrial revolution (Piore and Sabel, 1984, Soja, 2000).

As Fordist production waned, flexible specialization and other, smaller-scale methods of production, where production was done in smaller batches for specialized markets, emerged as the preferred model (Piore and Sabel, 1984). Firms practicing flexible specialization tended to be smaller, and because of intense competition among firms, clustered together in what Allen J. Scott, the economic geographer, termed a "productive-*cum*-competitive regime" to both share information and compete effectively (Scott, 1997). As a result of this transformation into the postfordist economy, traditional manufacturing decentralized away from city centers. Meanwhile, the same forces triggered the agglomeration of certain industries in a new urban *reindustrialization*, which consisted



of the new forms of production: high-technology-based production, craft- and design-based production (altogether, termed 'creative production'), and the financial services and related industries (Soja, 2000).

Urban theorists have recorded and dissected the many economic and societal factors that converged to bring about such drastic change to manufacturing industries located in cities. This chapter attempts to describe spatial, social, and economic functioning of the creative production industries, or 'creative economy,' that emerged from these processes, as well as the increased interest of cities in promoting the development of creative economy clusters. An overview of the creative economy will be supplemented by evidence from two case studies of creative production clusters in existence today, which may serve as models for the establishment of such clusters in New York City.

### ***Case Studies***

Two cases, Hollywood, California, and Vancouver, British Columbia, provide examples to understand the principles behind the way industrial manufacturing gave way to new forms of production that remain relevant today.

#### **Hollywood, CA**

The entertainment hegemony of Hollywood, CA (or, broadly, Los Angeles), arose naturally at the beginning of the 20th century. Until 1912-1915, Los Angeles was no more important as an entertainment center than other branch office locations (for New York City main offices). However, around that time, industrial agglomeration began to occur, with discrete but numerous branches settling down in the Los Angeles area and, combined with the New York market's simultaneous faltering, Los Angeles came to dominate the movie industry by World War II, such that by 1937, California had 87.8% share of industry employment. Also in the 1930s, industry consolidation meant that then, much as now, a handful ("the big five") of vertically integrated motion picture studios controlled the industry, including production, distribution, and marketing. Subsequently, Hollywood began to establish a litany of institutions to provide its stakeholders with every kind of representation (e.g., the unions, guilds, and the Academy). (Scott, 2005)

## **Vancouver**

Vancouver center city is part of a typical former industrial complex, with many buildings that were formerly used for the port and freight functions of the city. In the late 1980s, renewed growth in the city caused city planners to redirect the city's economy to promote the nascent design and creative services based near the inner city. This included recycling the former industrial buildings in Yaletown, parts of Downtown South, Gastown, and Victory Square. It also involved outwardly re-orienting the economy towards attracting architecture, interior design, multimedia industries, fashion design, and graphic design firms. The city's temperate weather, extant film industry proved advantages in the city's efforts to attract new clusters of growth. (Brail, 1994) (Davis and Hutton, 1991). (Hutton, 2004) In addition to attracting many new companies to the area, the fast development has also attracted scholarly attention (Shaughnessy, 1988; Young, 1989; Design Vancouver, 1990; Brail, 1994; Bennett, 1999). The planning departments of Vancouver and British Columbia have both exhibited innovative approaches to developing the design-based trades. (Hutton, 2000)

### ***Creative Production in the City***

Changing production processes have shifted the types of goods being produced. The term 'creative economy' can refer to the production of the fine arts (theatre, literature, painting, music), entertainment and media, publishing and printing, advertising, architecture and design, jewelry, fashion, furniture, and new media production (also known as multimedia or interactive digital media production). Creative products are by their definition judged not only on effectiveness or other utilitarian measures of success, but by more subjective standards of taste and culture. They are products that relate to consumers on an intimate level, in that they are often consumed as an expression of the consumer's personality. As a result, their success in the marketplace is also subject to the whims of consumer tastes, trends, and fashions.

As the products have evolved, so too have the places where production occurs. Industrial centers were no longer required to be positioned near a major waterway, and they became less place-dependent. What mattered instead were the connections with clients, suppliers, and competitors.

The successful industrial center in Northeast and Central Italy only grew in prominence once Fordist production had waned in the more famous North and productive South. Northern Italy, which had been characterized by its name, the Industrial Triangle, comprised of Genoa, Milan, and Turin, and represented the country's capital-intensive factories in traditional production formats. The South, on the other hand, historically boasted an agricultural landscape that had, by the postwar era, given way to a neo-Fordist economy controlled largely by interests in the North. 'Third Italy' thus emerged, in the postwar era, in Northeast and Central Italy on the basis of *fabbrica diffusa*, or small-scale, highly specialized, and decentralized production. Firms are often family-owned, and work often completed at home. Third Italy's success has been sustained by other pervasive social factors, including minimal class polarization and high participation in entrepreneurial ventures. (Scott, 1988a)

In the U.S., however, flexible specialization after the Italian model originated in the form of technopoles in major metropolises. These new areas of production increasingly experienced surges in productivity due to postfordist decentralization (Scott, 1997). As a result, the metropolis became the new focus for the 'milieux of innovation' celebrated by Castells and Hall.

The metropolis provides a rich environment for the development of creative economies, particularly in the fringes of the central business districts (CBDs) (i.e., on the periphery of the mainstream financial centers of downtown). There are many theories exploring the reasons for this agglomeration activity of creative production firms. For example, a density-based explanation: metropolises are centers for the most sophisticated financial activity, as well as the intensity and complexity of interactions that are able to crisscross each other to generate further creative (and non-creative) productive activity.

Metropolitan agglomeration of creative production firms also stems from the strong relationship between creative production and place, which results in a bias towards locating in the larger, regional capitals and major cities. Scott calls the relationship between the creative economy and location "symbiotic":

The more the specific cultural identities and economic order of these [key] cities condense out on the landscape the more they come to enjoy *monopoly powers of place* (expressed in place-specific process and product configurations) that enhance their competitive advantages and provide their

cultural-products industries with an edge in wider national and international markets. (Scott, 1997, emphasis added)

In addition, creative production benefits enormously from – and indeed relies upon – place-based affinity and strong local identity. This is due to the effects of so-called “monopoly powers of place,” but also benefits from the synergistic spillover effects of specifically metropolitan locations. Creativity is enhanced by the close proximity in which a diverse set of producers may intermingle; it is also generated and inspired by the inherently chaotic and layered nature of the city itself (Scott, 1997).

In order to attract and retain employees, and maintain a culture of innovation within the firm, creative production firms gravitate towards the vibrancy of central cities and the amenities available in them. Richard Florida argues that the “quality of place” in such vibrant urban neighborhoods is a causal factor for innovation- and knowledge-based economies (Florida, 2004). And in fact, it is for this reason that, as Castells and Hall documented, developers included amenities in their plans for technopoles in order to attract new residents, scientists, and institutions.

### ***The New Spaces of Production***

In the postfordist world of production, the tension between industry and the built environment can be described as the “industry-shaping power of spatiality” overcoming the “space-shaping power of industrialization” (Soja, 2000). The new spaces of production, particularly those in the creative economy, are flexible rather than rigid, emphasizing modularity, connectivity, and the footloose nature of its workers.

At the metropolitan and neighborhood scales, evidence suggests that creative industry clusters tend to locate in the inner city but at a distance removed from the traditional downtown or CBD of the city. The landscape in these neighborhoods maintains an urban or inner-city density but its physical separation from the CBD provides it a relief from the uncompromising corporate atmosphere that characterizes ‘midtown’: as Hutton states, “the nature of its being located ‘apart’ from the CBD lends it a feeling (however inaccurate) of being more relaxed.” The sense of a more permissive corporate culture signals more than just the spatial separation from the CBD: it fosters an attitude of being open to new ideas and ways of doing things. This attitude carries through to the

neighborhood's 'look and feel' and, ultimately, to the residents and workers inhabiting the space. In Hutton's 2006 study of the Yaletown and Gastown creative districts in Vancouver, interviews with local workers revealed a predilection for this perception of independence:

Several interviewees expressed approval of the (perhaps misleadingly) casual working environment of Yaletown and Gastown in comparison with the assertively modernist CBD and its resident 'suits', and a web designer in Yaletown expressed an appreciation of the heritage landscapes of the inner city, which were perceived as the "opposite of [suburban] high-tech industrial parks" in their look and feel. (Hutton, 2006)

The often-smaller scale of these neighborhoods, and spatial elements inherent thereto (pocket parks, low-rise, mixed-use buildings, and independent cafes), fosters both formal and informal networking in the creative industries, where meetings can take place in a coffee shop as often as in conference rooms. A 'look and feel' that is both physically and psychologically separated from that of the CBD also lubricates the social machinery that makes the creative economy work (Hutton, 2006).

Building types matter, too. Creative production benefits from internal building configurations that bring these elements of connectivity to the indoors, making modular spaces and open floor plans popular for firms. Adaptive reuse of former industrial buildings in post-industrial cities is becoming a common trend. Hutton observed that in the Vancouver neighborhoods of Yaletown and Gastown, firms sought out buildings for reuse. The top floors of former garment-manufacturing buildings, where natural light was abundant through the use of large windows, were ideally suited for conversion to design work or other production involving the participation of a large workforce. The fabrication and retail of the product could then be situated on the lower floors of the buildings (Hutton, 2006).

Hutton determined that the transition from Fordist mass production to the new flexible production of creative economies also related to the level of control the 'factory' building exerted over the worker: under the Fordist model, factory design exemplified social order and control over laborers, whereas in the new model, individual freedom and identity is stressed in the workplace. Further, the new model actually rewards workers in the creative economy:

Over the past two centuries, the industrial building has evolved from a 'box' for enclosing production labour within a semipenal social environment, to an engineered 'machine' for accommodating more skilled labour, and, more recently, to a 'seductive space' of aesthetic amenity for privileged professionals and creative industry workers. (Hutton, 2006)

Certain social characteristics of firms employing the so-called 'creative class' exemplify the "seductive space" concept: a casual, hip dress code; flexible work schedule; and interesting office perks. Florida termed this the "no-collar workplace" (Florida, 2002). Such social elements in the workplace not only encourage loyalty and productivity in workers; a casual and flexible physical workspace and atmosphere also enable the creation and maintenance of networks.

### ***Importance of Networks***

The new spaces of production form the "hardware," while networks provide the "software," in creative economies (Seitinger, 2004). Many creative industry firms locate themselves in big cities because of the primacy of networking to their businesses. The particular nature of the goods produced by the creative industries dictates the importance of informal and formal communication networks among industry players. Since, as discussed above, the goods produced are not judged based on utilitarian measures but instead on aesthetic or subjective qualities, creative products are traded through highly specialized production and distribution networks requiring specialization and personal interaction. This differs greatly from more commodified production, in which production networks benefit from generic traits and the substitutability of industry players.

Creative producers rely heavily upon the many backward and forward connections, particularly through face-to-face communication, both formal and informal. In particular, it is the spatial proximity of both backward connections to their suppliers and subcontractors, as well as forward connections to their clients, which facilitates deal flow and production activity. As a result, creative production firms tend to agglomerate within metropolitan centers to maximize possibilities for these connections.

Backward connections, especially for smaller firms, are often of greater importance. A 1994 interview-based study of applied design firms in Vancouver revealed that for every service these firms provided in-house, they tended to subcontract out four times as many of

such services to specialized firms, the majority – 56% – of which were located in the core metropolitan area (Hutton, 2000). Smaller firms with limited resources often supplement their activity through outsourcing. For example, 58% of Vancouver’s new media firms employ five or fewer people, according to a 2004 database survey (Britton *et al.*, 2009).

Another incentive for firms to locate centrally is employee availability and attraction. This is due both to the nature of the work – which can depend more often on freelance or contract-based labor than traditional service or manufacturing industries – and the average size and age of firms, where turnover is often higher among small startup companies. The study of Vancouver design firms (Hutton, 2000) also reported that these firms prized access to potential employees in preferring to locate within the central urban area. Interviews with new media firms in Vancouver confirmed their preference to employ, and have constant access to, freelance workers due to the variability of project size and type (Britton *et al.*, 2009). Similarly, the members of the local workforce are attracted to the central city locations in order to remain close to job opportunities, made available both through traditional means but largely also through word-of-mouth networks.

Often these networks are formalized in creative production industries through forming guilds, unions, and associations. Generally the purpose of these organizations is to collectively negotiate labor agreements, especially among a class of workers that are operating outside the bounds of traditional corporate structures: freelance workers, consultants, and others. But they provide other crucial services, such as regulation of professional standards, assistance with professional certification or accreditation, and training or continuing education services.

In the Hollywood motion-picture industry, the unions and guilds, include the well-known Screen Actors’ Guild, Directors Guild, and Writers Guild West, as well as unions representing film industry and related professions for a total of over 160,000 laborers in the Los Angeles area, as of 2002. And though support for collective bargaining in the industry is not universal, the unions and guilds remain a major force in the creative economy, maintaining wage and benefit standards for the industry, and preventing clashes among competing workers (Scott, 2005).

## ***The Production-Competition Matrix***

In addition to competing for the best workers, creative-production firms also agglomerate in order to compete economically with other firms. While industry clusters can evolve naturally, as in Hollywood, they can also be developed through deliberate place-based design strategies, and occasionally in city-scale projects. Such projects, called New Century City developments, make specific attempts to incorporate educational, research, and commercial interests into new competitive industry clusters linked by media and connected through a high-tech interface (Joroff *et al.*, 2008).

Cluster theory in both business management and urban design focuses in particular on the generative effect of spatial clustering of competitive firms. Creative production industries rely on clustering for innovations to occur, particularly those based on incremental improvements to past solutions. Operatively, firms' ability to easily observe one another's successes in product development and innovation allows for those successes to be replicated more quickly. Termed a "monitoring process" by Britton, Tremblay, and Smith, the process is aided by informal, ad hoc encounters, even in the age of global information exchange. Spatial proximity of firms and workers encourages this informality in the monitoring process, and the formation of both informal and even formal working relationships becomes more likely (Britton *et al.*, 2009). Extensive research has found that, in particular, face-to-face contact in the creative industries is most effective at advancing against competition (Mossig, 2008).

Desire for increased productivity and innovation are central motivations for agglomeration of creative production activities in a city. In fact, Scott relates opportunity for innovation directly to the level of opportunities for interaction among creative producers:

In particular, cultural creativity is not just an effect of the lonely ruminations of the individual, but more importantly is an outgrowth of multiple stimuli situated at the points of interaction between many different agents (cf. Jacobs, 1969; Powell *et al.*, 1996; Russo, 1985). This in turn suggests the hypothesis that innovation, all else being equal, is likely to be a geometric function of the size of the relevant reference group. (Scott, 1997)

The professional organizations, guilds, and unions that form in creative production industries become intermediaries for knowledge sharing and collective innovation – and by



extension, firms use them to keep up with competition. In Hollywood's film production industry, the Academy of Motion Picture Arts and Sciences holds its annual Oscar awards ceremony in order for Academy members and industry insiders to recognize achievements by industry leaders and encourage others to follow suit. But the awards ceremony also famously draws global attention to the importance of the industry, its location in the heart of Hollywood, California, and the narrative of its history there. This, in spite of the fact that the majority of films produced worldwide are actually produced outside of Hollywood (Scott, 2005). Thus, healthy competition among clustered creative production firms has the possibly unintended consequence of generating further success among those firms.

### ***Local Production; Global Consumption***

One of the most significant defining factors of creative production, however, is the distribution of these products on a global scale, aided today by networked distribution technologies and 'Web 2.0' capabilities. While the most successful creative products tend to be highly localized in production – often in order to maintain a sense of authenticity or local integrity – consumption of them is demanded worldwide. Thus, beyond the 'look and feel' of the centers for creative production are the highly intelligent networks of production which enable creative producers to make backward and forward linkages more easily, obtaining parts and other input through the network, and distributing their products across the globe.

### ***Negative Spillovers***

The restructuring of production in the postfordist era has also resulted in negative spillover effects. Postfordism has been blamed on a macro level for increasing wealth inequalities for the benefit of corporate America (Soja, 2000). Inequalities can also exist at the individual firm scale. Inherent to the labor-intensive creative industries are certain policy issues relating to labor relations and quality assurance. For example, garment-production shops seeking to maximize profits on the cheap often look to unskilled labor, costing the industry in both average quality of output and reputation (Scott, 1997).

Gentrification has emerged as a major negative spillover effect in creative industry districts. Emergent creative production clusters are often found near artists, their studios, and hence, cheap rent. In many ways, this makes sense. David Ley, an urban geographer, describes the attraction of, first, 'social' professionals and pre-professionals, and next, intellectuals, educators, and media workers, and – finally – 'serious' professionals and business people, to artistic places, as a process that is not random:

The aesthetic appropriation of place, with its valuation of the commonplace and off-centre, appeals to other professionals, particularly those who are also higher in cultural capital than in economic capital and who share something of the artist's antipathy towards commerce and convention. Like the artists, they are indifferent to the charms of suburban life and have stretched an alternate topography of meaning across the space of the metropolis. (Ley, 2003)

But the generative effects and other positive spillovers of creative production described earlier in this chapter also result in the displacement of the cluster's artistic pilgrims. In a National Endowment for the Arts study, artists' residence in a census tract was found to be statistically related to its subsequent gentrification; another study had similar findings for the four largest Canadian cities (Gale, 1984 and Ley, 1996 cited in Ley, 2003).

### ***A Policy Imperative***

There is no prescription for industrial retention in the cities, and little agreement on the form urban production should take. Some theorists dispute the relevance of flexible specialization as a response to deindustrialization. Empirical evidence suggests that many profit-seeking firms only adopt such technologies as a response to budget pressures, rather than a desire for innovation (Lovering, 1990). In other words, firms in search of bottom-line results respond to a 'pull' mechanism, rather than a 'push' mechanism in adapting to change. This may be the case in some creative production firms, though exhaustive research has yet to be done.

Also evident is the already unfettered presence of creative industry in the U.S.'s major metropolitan regions – with New York, Los Angeles, and San Francisco leading the way as "super-arts" concentrations (Markusen, 2008). In New York City, the creative economy is partly represented by manufacturing firms operating in the City's sixteen

Industrial Business Zones (IBZs), geographic areas created to grant tax incentives and zoning protections for manufacturing businesses (Corporation, 2009). However, firms undertaking creative production will also fall outside the purview of the IBZs, as they are not always categorized (by the City or themselves) as manufacturing firms. And as discussed above, locational considerations can be driven by proximity to similar or linked firms, rather than zoning. The interplay between creative production and the existing IBZ infrastructure is discussed in further detail in Chapter 4.

The motion-picture production industry in Hollywood began nearly a century ago and has flourished without policy intervention as its impetus. Meanwhile, the comparatively recent case of the creative industries in Vancouver outlines a markedly proactive city-planning scheme engineered by the city to foster growth in the industries – and its success has registered in downtown growth. Yet in Vancouver, success has also ushered in displacement; some of the original creative firms from the Yaletown area have already relocated (Hutton, 2000).

To nurture the creative industries that are attracted by, and uniquely suited to, the great metropolises of the twenty-first century, planners must formulate normative strategies for their development and defense. Such strategies should not only provide the spatial basis for creative clusters, but they should also aim to strengthen the social and economic networks that flow through the ‘hardware’ of firms and buildings. Scott argues that such an approach is in fact a policy imperative:

This composite order of things means that appropriately attuned local economic development policies are not only in order but also imperative... such policies need in particular to address such agglomeration-specific tasks as the provision of technological research services, the training of labor, the social governance of interindustrial networks, and institution-building generally in the interests of *coordinated and synergistic regional development* (Scott, 1996a, cited in Scott, 1997)

Strategies must also confront the negative spillovers, including the ‘creative destruction’ caused by success – i.e., gentrification – in policymaking and planning.

These issues present a policy opportunity for localities to ensure both the quality and reputation of local industries, but also to maintain regional competitive advantage –

the *monopoly power of place*. The following chapter sets forth a framework for developing and advancing creative industry clusters in metropolitan neighborhoods.

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## CHAPTER 3

### New Poles of Production

The main purpose of this chapter is to synthesize the findings from Chapters Two and Three by defining a framework of the key elements necessary for the development of the physical and social structures of an urban creative-production cluster. The chapter will propose and examine these guidelines in detail, then go on to explore how they can be applied in the context of Brooklyn, NY.

#### ***Framework for Development of Creative Production Clusters***

The framework for the development of creative-production clusters is organized into seven key elements that need to be present for a cluster to mature:

- Formal configuration;
- Informal opportunity;
- Preservation;
- Incubation;
- Apprenticeship;
- Network infrastructure; and
- Fuel.

Each category includes both ‘hard’ and ‘soft’ features. Creative-production clusters require both a physical, or built, structures and a social support structure, in order to sustain themselves over time and varying economic conditions. These two facets of creative production clusters are termed here as ‘hard’ and ‘soft’ infrastructure. *Hard* infrastructure refers to the physical and built spaces inhabited by creative producers, while *soft* infrastructure refers to enabling policies and institutions that allow for innovation and advancement to occur. If hard infrastructure is the ‘machine’, the soft infrastructure provides the grease that keeps motors running. Thus, the framework guiding development of creative-production clusters encompasses fourteen categories of interventions that are

necessary for the development of a sustainable creative production cluster. The complete set of guidelines is shown in Figure 3.1.

### **Formal Configuration**

Creative-production clusters are not amorphous but develop as systems in the city with defined structures. These structures are often formally established by actions including: construction of the built environment, implementation of policy, or institutional assistance. Within hard infrastructure, formal configuration of creative production spaces refers to both built and existing spaces of production. Diverse firms are located in close physical proximity to one another. Often, a single building may house multiple businesses and types of production, with infrastructure and facilities shared by those firms. The density of use plays a major role in facilitating creative production. Flexibility is also critical, particularly since the needs of growing businesses are constantly in flux. The Cambridge Innovation Center, a largely biotech-based office incubator located in a building in Kendall Square in Cambridge, MA, can house approximately 175 businesses – many of them startups – in spaces that are flexible in size as well as tenure (no long lease terms are required) (Center, 2009).

Formal configuration of the soft infrastructure provides political and institutional bases for creative production zones. Many major U.S. cities currently have ‘percent for art’ programs requiring that a small percentage – one to two percent – of funds for civic projects be allocated towards a public art fund<sup>1</sup>. This model of capturing public funds could also be used to provide a revenue stream for the development of local creative production clusters.

Designation of creative-district zoning to protect live-work spaces may also provide a formal policy tool for planners to configure the spaces of creative production. or business improvement district overlay. Business improvement districts (BIDs), while generally

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<sup>1</sup> The City of San Francisco’s Public Art Commission requires that two percent of construction costs for all public buildings, infrastructure projects, and parks, be allocated to public art. Other programs include (i) the Percent for Art program in Philadelphia, PA, one of the oldest such public art programs in the U.S., begun in 1959, (ii) the Art in Public Places Program in the State of Hawaii, requiring one percent of public capital expenditures be dedicated to the arts; and (iii) M.I.T.’s Percent for Art Program, instituted in 1968, which sets aside up to \$250,000 in art commissions for major building projects or renovations on campus.

costing members in annual dues or fees, would also provide institutionalized support structures for creative production firms. The creative production district could exist as a zoning or BID overlay spanning several neighborhoods. Finally, tax incentives to attract and retain businesses complete the kit of classic tools for spurring neighborhood development. However, pairing such seemingly traditional policies with a ‘percent for creative industry’ initiative would provide both the stimulus, demand, and funding for formal configuration of the cluster.

On the website of the Brooklyn Chamber of Commerce, members’ business listings are searchable by industry. However, member dues go beyond directory listings: 2009 marks the seventh year that the Brooklyn Chamber of Commerce has hosted the BKLYN Designs conference for Brooklyn manufacturers of furnishings and home accessories<sup>2</sup>. The Chamber’s ability to provide a formal structure for local designers to convene to showcase their work also provides a venue to facilitate collaboration in the future.

### **Informal Opportunities**

Informal opportunities for interaction and networking provide the regenerative creativity and innovation that keep creative production clusters in business. For such informal opportunities to emerge, both the hard infrastructure – the places – and the soft infrastructure – the social milieux – need to be present and encouraged.

Of primary importance is the fine-grained mixing of physical spaces for both socializing and networking: where industry people gather at parties and clubs, as well as conferences and showcases. This dictates a diverse array of places for ‘informal’ uses, or uses not strictly related to business. It includes pocket parks and an opportune sidewalk bench, as well as the after-hours uses that surround the offices of creative production. Buildings and blocks are thus broken down in scale in order to promote a sense of intimacy in the

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<sup>2</sup> The BKLYN Designs website describes the conferences as “New York’s hottest exhibition of designers and manufacturers of contemporary furnishings, lighting, and accessories made and/or designed in Brooklyn, all handpicked by a jury of editors from leading design and shelter magazines. Founded in 2003, this not-to-be-missed trade show has doubled its attendance in just six years, and has grown to include a diverse array of satellite exhibits and demonstrations, panel discussions, and keynote speakers.”  
<http://brooklyndesigns.net/index.php> (accessed 4/15/2009)



neighborhood, and one that encourages the nurturing of working relationships (and nonworking ones, too).

Programs encouraging these informal opportunities similarly focus on enmeshing different populations with each other. The social events inhabiting the spaces described above have purpose beyond mere entertainment. As Currid observes, “nightlife is economically meaningful in the creative world,” with every informal interaction in social life providing currency for future transactions (Currid, 2007).

Community outreach events, such as open-studio days, festivals, and design competitions, provide additional networking opportunities for residents but also ground creative production in the neighborhood. The Brewery ArtWalk in Downtown Los Angeles is a two-day event that celebrates the work of artists in residence at a live-work community on the site of a former industrial brewery<sup>3</sup>. It gives a ‘place’ and neighborhood to artists who would otherwise be working independently of their locale, while connecting artists in the downtown area to each other. A resulting sense of place and belonging is another intangible form of currency that creative producers – and policymakers – trade upon.

## **Preservation**

Preservation of both existing industrial buildings and neighborhood character also guide the development of creative production centers. Adaptive reuse of industrial buildings is often more sustainable than building from scratch – but these buildings, which often exist in the former industrial neighborhoods of major cities, also provide excellent workspaces for the type of work that creative producers do. Their open floor plans provide flexibility, with high ceilings that allow natural light into studios and design showrooms. They often also have great character. A third reason for using preservation to maintain the historic fabric of the neighborhood is that it lends those buildings the sense of the unique location of a product’s fabrication. Where old buildings cannot be used, reusing deconstructed building materials in new construction or renovation could confer a similar sense of authenticity. For example, the Greenpoint Manufacturing and Design Center in

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<sup>3</sup> For more information about the Brewery ArtWalk, visit the website at: <http://www.breweryartwalk.com/>.

Brooklyn purchases, rehabs, and rents flexible industrial space in former industrial buildings in the Greenpoint and East Williamsburg/Bushwick neighborhoods.

Along with the preservation of physical spaces of production, creative production clusters should also aim to preserve neighborhood character and protect the current residents where clusters locate. The soft infrastructure for preservation thus includes building and protecting the supply of affordable housing in and around creative-production clusters, with preference given to current residents. Zoning for live-work use also protects studio-based workers who are often self-employed, while also promoting an increasingly local network of producers in a neighborhood. In Massachusetts, soft infrastructure for the artists community is reinforced by the work of ArtistLink, a not-for-profit organization that aims to preserve and create affordable artists' housing (including in live-work spaces), while also advocating for statewide policy to back the cause.

### **Incubation**

Creative production clusters rely on incubation of startups and small businesses in order for those firms to grow, succeed, and stick around. Spaces for incubation can be located adjacent to or nested within locations for larger, more established firms, to make knowledge sharing more natural. Such incubator buildings, where startups are formed and develop are not rare; the Cambridge Innovation Center (CIC) in Cambridge, MA, is one example of a largely science- and biotech-based incubator. A major benefit for startups there is the CIC's environs: adjacent to the M.I.T. campus, in the heart of the largest biotechnology cluster on the East Coast.<sup>4</sup>

In addition to locating startups near more established firms, incubation requires business development assistance for the startups. Specifically, incubation centers should offer small business services and technical assistance. Tax incentives can also support the local creative industry by giving tax breaks to firms that use local businesses for subcontracting. These separate initiatives might be linked together at a metropolitan or regional scale; for example, in 2008, the Commonwealth of Massachusetts appointed a

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<sup>4</sup> Nuestra Culinary Ventures, a Jamaica Plain, MA, based kitchen incubator, provides space and training to culinary startups, many from the local neighborhood, including Jamaica Plains's Cape Verdean residents. <http://www.nuestracdc.org/ncvweb/index.html>

Creative Economy Industry Director to the Office of Business Development to provide industry support.

### **Apprenticeship**

Development of human capital is equally important to the success of creative production clusters and the firms within them. The physical space for job training programs should be built into the spaces of creative production.

Such job training programs would provide the skills development necessary for both intra- and inter-industry advancement – skills that are transferable. Local educational and cultural institutions may become excellent partners for such job skills and design training, but such a partnership cannot happen without forging the bond with these institutions. Policymakers may use tax and zoning packages to attract the organizations into the cluster in order to enable these partnerships.

An example of successful institutional-firm partnership is the mature science/technology sector surrounding the M.I.T. campus. Well known for turning research done by students into tangible and marketable products, both the Institute and the biotech sectors have benefited as a result of this close exchange of knowledge and human capital. The Broad Institute at M.I.T. employs many recent graduates, as well as current students in internship form. This aspect of human development – honing of job skills – is critical to network development in creative industry clusters, not just in science-based firms.

### **Networkability**

Network structures are another means by which creative producers interface with each other on a day-to-day basis, but also important is the link they provide to the rest of the world. This link allows firms to sell their products, made locally, anywhere in the world. Part of what is then ‘exported’ is the idea of locally-produced authenticity essential to a product.

Hard infrastructure for networkability refers most obviously to the physical infrastructure installed for internet connectivity. In Helsinki’s Arabianranta, planners unwired the entire district for ubiquitous wireless internet connectivity with built-in firewall protection. All locals are linked by the Helsinki Virtual Village; apartment-dwellers are

connected to their neighbors by an eHousemanager who manages content for each residential building in the district (Gabbe, 2006). Soft infrastructure requires that locals be trained in the use of these ubiquitous technologies. A single web portal for services is used for people, firms, and education; this helps to unify the community on a single site.

### **..and the Fuel**

“Fuel” describes catalysts for the development of creative production centers. Largely indefinable, this thesis attempts to unpack what causes creative producers to cluster together, and once clustered, to survive. The hard infrastructure providing ‘fuel’ may simply be a result of cash infusion that funds relatively risky investments in creative production structures and institutions (as compared to mainstream real estate propositions). Thus, the hard infrastructure is represented by capital investment.

Capital investment can encompass traditional municipal investment, but also comes about from the creation of pooled investment funds for small- and medium-sized startups in the field of creative production. Direct grants and low-interest loans to entrepreneurs also fuel development and when targeted towards creative industries in specific geographic locales, facilitate spatial clustering.

The soft infrastructure is more complicated. As defined herein, soft infrastructure is comprised of policies and institutions that enable innovation and communication to flow between the physical spaces – within the hard infrastructure. What spurs networking, creativity, and ultimately, clustering?

To some extent, the soft infrastructure of fuel can be provided by ‘buzz’: the communication of news and opportunities through word-of-mouth and media coverage. Buzz can be engineered, as with design competitions, awards banquets, and festivals, along with pervasive blog chatter and twitter ‘tweets’. Indeed, while the traditional mass media play a part in creating buzz, the medium of ‘buzz’ is increasingly web-based, on social networking sites or otherwise online, with a lesser importance placed on analog formats.<sup>5</sup>

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<sup>5</sup> A March 2009 paper presented at the annual Association of American Geographers conference, titled “Geography of Buzz,” attempted to map, at the individual parcel level, the geospatial dimensions of how ‘buzz’ happens in the creative worlds of New York (Manhattan) and Los Angeles. The data used were 6,000 photographic images taken during March 2006-2007 at buzzworthy events in fashion, film, media from a database of Getty Images photos. Criticism of the research, though, has narrowed in on the fact that professional photographers’

Preceding and fostering buzz, though, is an inherent sense of place that attracts the creative industries. The allure of being pioneers in new urban neighborhoods can appeal to creative types, many of whom hew to a tradition of counterculture. The often-gritty quality of the urban fabric, especially in post-industrial lost neighborhoods, adds an authenticity (however contrived) and also inspiration for their work. And once in place, creative producers feed off one another's presence in a virtuous cycle of agglomeration and competition.

### ***Making It in Brooklyn***

Applying this framework – both hard and soft infrastructures of formal configurations, informal opportunities, preservation, incubation, apprenticeship, networking, and the fuel – to Brooklyn entails uncovering those infrastructures that already exist there.

Under the City's January 2005 industrial policy paper, "Protecting and Growing New York City's Industrial Job Base," the City laid out plans to designate Industrial Business Zones (IBZs), where land would not be rezoned as residential and relocation credits would be granted to new businesses choosing to move to IBZs. In addition, the Mayor's Office of Industrial and Manufacturing Businesses was created (NYC 2005). The six IBZs in Brooklyn are Greenpoint-Williamsburg, Brooklyn Navy Yard, Southwest Brooklyn, Flatlands-Fairfield, East New York, and North Brooklyn.

The next chapter will analyze the viability of each of the six Brooklyn IBZs as a potential new center for creative production in New York City, based upon this framework set forth in this chapter. Using this analysis, an illustrative proposal will be developed for a neighborhood. Using this illustration, I will argue that the creative-production cluster in Brooklyn can craft a sustainable future for the City, and envision how such a future might look.

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contributions may not in fact make the best proxy for a measure of buzz – rather, users of Flickr.com, Facebook, Twitter, and other social networking sites might indicate 'real' buzz. (Currid, E. and S. Williams (2009) The geography of buzz. Working paper.)

|                               | <b>HARD INFRASTRUCTURE</b><br><b>built environment: the places</b>   | <b>SOFT INFRASTRUCTURE</b><br><b>social capital: the in-between</b>  | <b>precedents</b>   |
|-------------------------------|--|--|---|
| <b>formal configurations</b>  | <ul style="list-style-type: none"> <li>o firms in close physical proximity</li> <li>o facilities shared by diverse firms housed within the same structure</li> <li>o infrastructure investment</li> <li>o flexible and modular spaces</li> </ul>     | <ul style="list-style-type: none"> <li>o tax incentives to attract businesses</li> <li>o “percent for art” taxes that can be allocated towards development;</li> <li>o zoning including designation of live-work spaces</li> <li>o craft guilds</li> </ul>                                       | <ul style="list-style-type: none"> <li>o Cambridge Innovation Center (MA)</li> <li>o Brooklyn Chamber of Commerce’s BKLYN Designs(NY)</li> </ul>  |
| <b>informal opportunities</b> | <ul style="list-style-type: none"> <li>o spaces for socializing, showcases, conferences, and nightlife</li> <li>o informal gathering spaces – pocket parks, benches</li> <li>o small-scale buildings</li> </ul>                                      | <ul style="list-style-type: none"> <li>o social events: networking, parties</li> <li>o community outreach: open-studio days, festivals, competitions</li> <li>o promote a diverse/multi-cultural community</li> <li>o belongingness; sense of place</li> <li>o branding and marketing</li> </ul> | <ul style="list-style-type: none"> <li>o Brewery ArtWalk, Downtown L.A.</li> </ul>  |
| <b>preservation</b>           | <ul style="list-style-type: none"> <li>o use existing industrial floorplates</li> <li>o reuse old building materials for new construction</li> </ul>   | <ul style="list-style-type: none"> <li>o build/protect affordable housing with preference for current residents</li> <li>o use live-work zoning</li> <li>o provide community training: small-business management, language</li> </ul>  | <ul style="list-style-type: none"> <li>o Greenpoint Manufacturing and Design Center, Brooklyn, NY</li> <li>o ArtistLink in Massachusetts</li> </ul>   |
| <b>incubation</b>             | <ul style="list-style-type: none"> <li>o places for small firms to be located ‘under the wing’ of larger firms and share knowledge</li> <li>o incubator buildings where startups are formed</li> </ul>   | <ul style="list-style-type: none"> <li>o tax breaks for using local businesses (incl. for subcontracting)</li> <li>o small business services and business development</li> </ul>   | <ul style="list-style-type: none"> <li>o Cambridge Innovation Center (MA)</li> <li>o Innovation Philadelphia (PA)</li> <li>o Creative Economy Industry Director (Office of Business Development, MA)</li> </ul> |
| <b>apprenticeship</b>         | <ul style="list-style-type: none"> <li>o centers for workforce development: physical space for job training</li> </ul>   | <ul style="list-style-type: none"> <li>o skills development for intra- and inter-industry advancement</li> <li>o attract, and establish links with, educational and cultural institutions for job skills/design training</li> </ul>  | <ul style="list-style-type: none"> <li>o MIT-University Park, Cambridge, MA</li> <li>o Design University, Arabianranta</li> </ul>   |
| <b>network infrastructure</b> | <ul style="list-style-type: none"> <li>o infrastructure for internet connectivity; transparency</li> <li>o studio presence felt ‘on the street’</li> </ul>   | <ul style="list-style-type: none"> <li>o technology training for residents</li> </ul>  | <ul style="list-style-type: none"> <li>o Helsinki Virtual City, Arabianranta</li> </ul>   |
| <b>the fuel</b>               | <ul style="list-style-type: none"> <li>o funds for these structures and institutions</li> <li>o creation of pooled investment fund for small/medium-size startups</li> <li>o direct grant/loans to entrepreneurs; creative industry funds</li> </ul> | <ul style="list-style-type: none"> <li>o awards; competitions</li> <li>o festivals</li> <li>o buzz</li> </ul>  | <ul style="list-style-type: none"> <li>o Linkage Fees for affordable housing development, Boston, MA</li> <li>o Tax Hypothecation funds</li> </ul>  |

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## CHAPTER 4

### Creative Brooklyn

Chapter One discussed the important but often overlooked role of for-profit creative production businesses in urban economic generation. Chapter Two explored the underlying themes and premises of clustering creative production in cities, and locating such clusters in urban areas. Chapter Three introduced a framework summarizing the necessary components for creative industry clusters in the city. The main purpose of this chapter is to describe a strategy for implementing such a framework for a sustainable creative cluster in Brooklyn.

#### *Productive Brooklyn*

The borough of Brooklyn has historically played an important role as a center for shipping, warehousing, and distribution in New York's manufacturing economy. But in the latter half of the twentieth century, the combined effects of containerization and trade globalization drastically reduced Brooklyn's share in industrial activity, as much of the shipping activity transferred to New Jersey, and manufacturing went abroad. This was symptomatic of a citywide reduction in its manufacturing base: whereas, in 1947, 37,000 manufacturing businesses employed nearly a million workers in the city, by 1980, the number of manufacturing jobs in the city was reduced by half. Between 1950 and 1999, manufacturing as a percentage of total employment declined from 28% to just 7% (Lander *et al.*, 2004). Since 2000, manufacturing jobs in Brooklyn have declined by 40% (Commerce, Fall 2008). Yet Brooklyn's manufacturing jobs comprise approximately a quarter of New York City's manufacturing sector. Thus, the manufacturing lost prominence in recent decades both citywide and in Brooklyn due to macro globalization trends in the U.S., as in many other industrial cities.



The city's manufacturing base has suffered from limited political support in recent decades. The administration of Mayor Michael R. Bloomberg has aimed to advance the city from an industrial economy into the post-industrial age. The administration has thus pursued a strategy of property-led economic development, focusing on providing and improving office space to attract new businesses and jobs to the city (Lander *et al.*, 2004).

Creative production firms in Brooklyn have begun to fill both the spatial and economic voids left by departing manufacturing businesses, such as at the Brooklyn Navy Yard, a 300-acre former shipbuilding site near Downtown Brooklyn, where 2,000 jobs have been created in the past few years, according to the president and chief executive, Andrew Kimball (Fahim, 2008).

This thesis attempts to discuss an emerging category of creative businesses that operate as manufacturers, service providers, and self-proprietorships. They can also be hard to distinguish with great specificity in organizational and census data, because frequently, skills and tasks overlap across sectors: a person with a creative job (in graphic design, for instance) may work on projects that are viewed as 'creative' or 'corporate.' Sole-proprietorships must self-categorize in one of the NAICS or SIC (Standard Industrial Classification of the U.S. Department of Labor) codes, in order to be included in such data. As discussed in Chapter One, then, pinpointing creative producers can be a problematic exercise. Ultimately, though, the data described in this chapter show that in Brooklyn, while traditional forms of production may have waned in the past few decades, creative production still thrives: firms performing architectural services, industrial and graphic design, computer and internet services, film, and music in Brooklyn number more than 1,100.

In addition, niche manufacturers in Brooklyn have recently brought attention to some non-traditional manufacturers in the borough, including artisanal food producers and furniture, woodworking, and metalworking specialists. These 'growing' producers now comprise 21% of firms and 25% of jobs in Brooklyn, according to the Brooklyn Chamber of Commerce's semi-annual survey of the Brooklyn economy (Commerce, Fall 2008). One reason these niche manufacturers have attracted growing attention is their ability to withstand economic hard times. Andrew Kimball, of the Navy Yard, said recently of the

smaller niche manufacturers, “They tend to be very nimble, even in the downtimes. They can make it through a difficult stretch easier than the bigger players.” (Haughney, 2009)

### ***Strategy: An Introduction***

The proposed strategy for implementation in Brooklyn is set forth in Figure 4.1 below. The proposed strategy is comprised of five steps:

1. **Map the creative landscape.** This includes the locations and density of creative producers, support agencies and institutions, and space usage and availability.
2. **Determine area and scale of the creative cluster.** A needs assessment based on the level of development of the hard and soft infrastructures will assist in determining the areas to include in the cluster.
3. **Partner with city agencies and institutions.** An inventory of the various public agencies and non-profit organizations that exist to assist small businesses and creative endeavors informs these partnerships.
4. **Form a creative cluster management entity.**
5. **Fill in the hard and soft infrastructure gaps.** The main purpose of the creative cluster management entity is thus to provide the conditions for advancement of the cluster; this is done by developing the hard and soft infrastructure in areas that need improvement.

The strategy is outlined in greater detail below. This chapter will then continue with a look at the particular neighborhoods in Brooklyn where it may be applied.

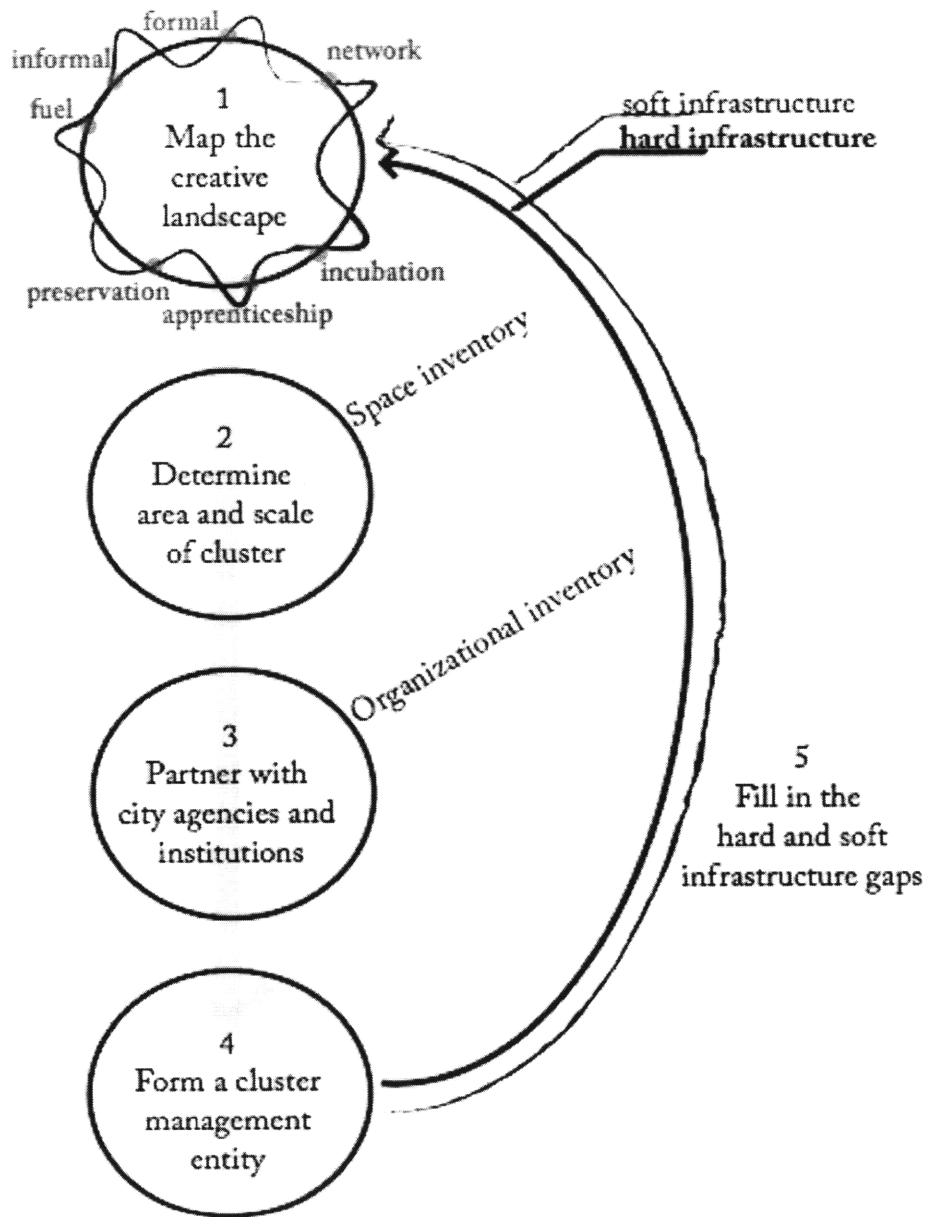


Figure 4.1. A strategy for strengthening creative production clusters in Brooklyn

### **Strategy: Application**

#### **1. Map the creative landscape**

First, map the current creative landscape in Brooklyn, to determine what creative activity is already happening and where to foster future growth. The creative landscape consists of existing creative producers, the city agencies that assist small businesses in

formation and maintenance, and the organizations – many of them non-profits – that provide technical assistance to artists and creative organizations.

The intersection of these groups makes up the creative landscape, and underlying this landscape are the components of hard and soft infrastructure: formal structures, informal opportunities, preservation, incubation, apprenticeship, networkability, and the fuel. A map of the creative landscape includes an understanding of how well developed each of these criteria are for cluster development.

Today, there are more than 1100<sup>6</sup> creative businesses operating in Brooklyn. In order to understand the creative-production landscape of Brooklyn, I conducted a database search to locate creative firms in Kings County, NY, using the North America Industrial Classification System (NAICS) to locate firms in the architectural services, industrial and graphic design, computer and internet services, film, and music industries<sup>7</sup>. These include:

- 394 architectural design-related firms,
- 300 industrial and graphic-design firms,
- 243 computer-technology and internet-services firms,
- 134 film-production firms, and
- 50 music-production firms.

Figure 4.2 shows the location of these businesses, while Figure 4.3 shows the New York City Department of City Planning’s designation of Community Districts, along with neighborhoods within each Community District.

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<sup>6</sup> Source: ReferenceUSA.com, accessed April 24, 2009

<sup>7</sup> The database search consisted of NAICS codes for architectural services (541310, 541320, 541330, 541340, 541360, and 541370); industrial, graphic and interior design (5414XX); computer and internet services (5415XX); film production (5121XX); and music production (5122XX).

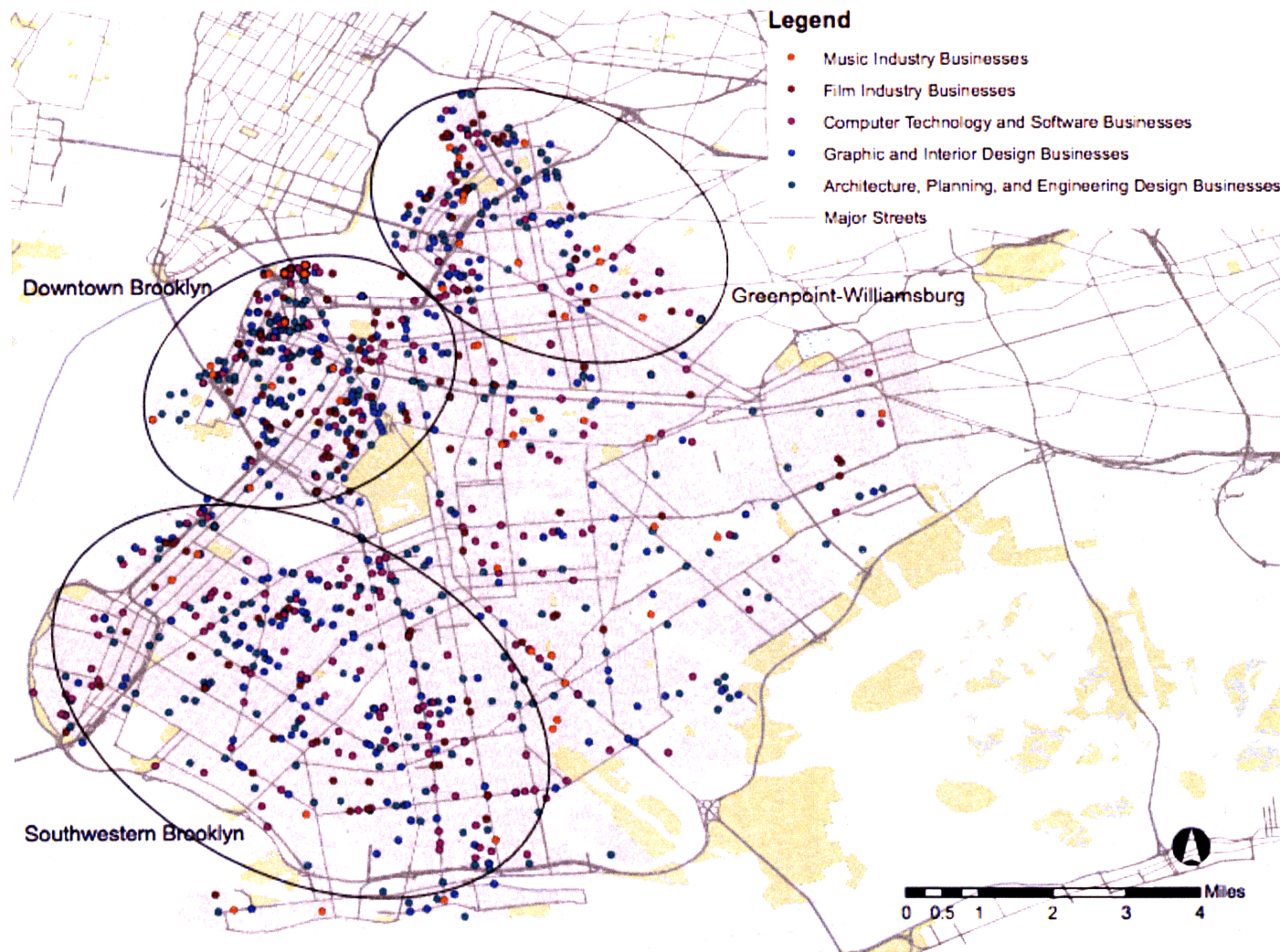


Figure 4.2. The creative production landscape in Brooklyn. Each dot represents a business in the architectural services, industrial and graphic design, computer and internet services, film, or music industry. (Source: ReferenceUSA, ESRI)



Figure 4.3. Map of Community Districts and neighborhoods in Brooklyn. (Source: NYC Department of City Planning)

### Three existing clusters in Brooklyn

The spatial distribution of creative businesses indicates that several creative clusters already exist in Brooklyn. The greatest concentration of creative businesses occurs in the western Brooklyn neighborhoods near Downtown Brooklyn, in Community District 2 (Downtown, Brooklyn Heights, DUMBO, Fulton Ferry, Vinegar Hill, Navy Yard, Clinton Hill, Fort Greene, and Boerum Hill), with some spillover into Prospect Heights (Community District 8) and Park Slope (Community District 6).

Another concentration exists in Greenpoint and Williamsburg, in northern Brooklyn's Community District 1. A third set of more sparsely-located creative firms is located in the southwestern quadrant of the borough, spread over six Community Districts.

*Neighborhood characteristics: Greenpoint-Williamsburg*

The waterfront neighborhoods of Greenpoint and Williamsburg are characterized a mix of uses, in mostly low-rise buildings including many former industrial buildings. 34% of land area in the Greenpoint-Williamsburg neighborhoods is dedicated to industrial land uses (NYC DCP 2007). These neighborhoods are also well known for their diverse residents, consisting of immigrants of, among others, Polish and Dominican origin, as well as the area's Bedford Avenue hipsters. According to the 2000 Census, 36.2% of residents worked in the industrial (and agriculture) trades, as opposed to 21.6% and 17.3% in Brooklyn and New York City, respectively (NYC DCP 2007).



*Two street scenes in Williamsburg, Brooklyn. Photo sources: LivableStreets.com (left) and Flickr.com user BrooklynCatfish (right)*



*Mollusk Surf Shop in Williamsburg, Brooklyn. Photo source: Daniel A. Norman*

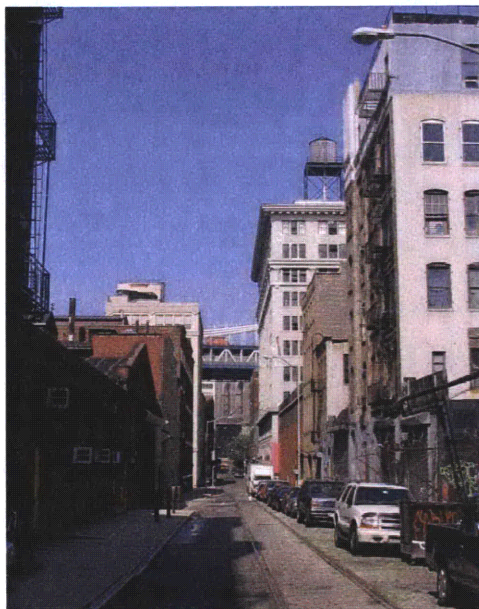
*Neighborhood characteristics: Downtown Brooklyn*

In contrast to the Greenpoint-Williamsburg area, Downtown Brooklyn and surrounding areas offer zoning much more weighted towards residential uses. The residential makeup also differs considerably from that of its northern Brooklyn neighbor. For example, the largest share of residents in Community District 2 (Downtown, Brooklyn Heights, DUMBO, Fulton Ferry, Vinegar Hill, Navy Yard, Clinton Hill, Fort Greene, and Boerum Hill) were in professional and related occupations at the time of the 2000 Census, as compared to 21.9% and 23.3% in Brooklyn and citywide, respectively (NYC DCP 2007b).



*Two street scenes in Brooklyn Heights.*

The area also benefits from the industrial activity at the Brooklyn Navy Yard, where Steiner Studios, among other firms, have established a presence, bringing film and television production jobs to the borough.



*Left: DUMBO streets reflect mixed use and historic industrial buildings. Right: Steiner Studios at the Brooklyn Navy Yard. Photo sources: Bridge and Tunnel Club (left) and Brooklyn Navy Yard (right)*



*Neighborhood characteristics: Southwestern Brooklyn*

The neighborhoods comprising the creative cluster in Southwestern Brooklyn lack a single neighborhood character. They inhabit neighborhoods in six different Community Districts (CDs):

- CD 7: Sunset Park and Windsor Terrace;
- CD 12: Kensington, Borough Park, and Ocean Parkway;
- CD 14: Prospect Park South, Ditmas Park, Flatbush, Midwood, and Manhattan Terrace;
- CD 10: Bay Ridge, Dyker Heights, and Fort Hamilton;
- CD 11: Bensonhurst and Bath Beach; and
- CD 15: Gravesend, Sheepshead Bay, and Gerritsen, Plum, and Manhattan Beaches.

Because they are spread out geographically across the borough, the neighborhood characters can diverge severely, as seen in the examples of Borough Park (CD 12) and Sheepshead Bay (CD 15).



*Left: Borough Park. Right: Sheepshead Bay.*

The commercial corridor along Coney Island Avenue, a five-mile long thoroughfare and route of the B68 bus, is particularly active with creative production firms. Known for its multicultural character, though Coney Island Avenue traverses several neighborhoods, it is seen as a singular microcosm of ethnic New York, where residents who are Turkish, Pakistani, Russian, and Sikh, Jewish and Muslim both, converge to do business, meet, and eat (Newman 2004).



*Coney Island Avenue commercial strip. Photo source: forgotten-ny.com*

### *Industrial Business Zones and Creative Clusters*

In 2005, Mayor Bloomberg convened a task force on industrial policy. The task force formed an Office of Industrial and Manufacturing Business to formulate citywide industrial policy. It also established Industrial Business Zones (IBZs), which were based on the city's 1980 In-Place Industrial Park program (IPIP). The City established the IPIP to clean up New York City's blighted industrial areas and the program had limited economic development initiatives at the outset. The original IPIPs were designated based upon the areas most in need of public funds and attention. In later years, additional IPIPs were designated based upon volume of economic activity; part of the intent of the IBZ initiative, though, was to realign the boundaries of these industrial corridors to better match citywide economic development strategy (NYC 2005).

The distribution of creative businesses in Brooklyn can also be compared to the City's existing IBZ structure. Figure 4.4 depicts the six IBZs currently supported in Brooklyn: Greenpoint-Williamsburg, North Brooklyn, Navy Yard, Southwest Brooklyn, Flatlands-Fairfield, and East New York, as they relate to the locations of existing creative businesses.

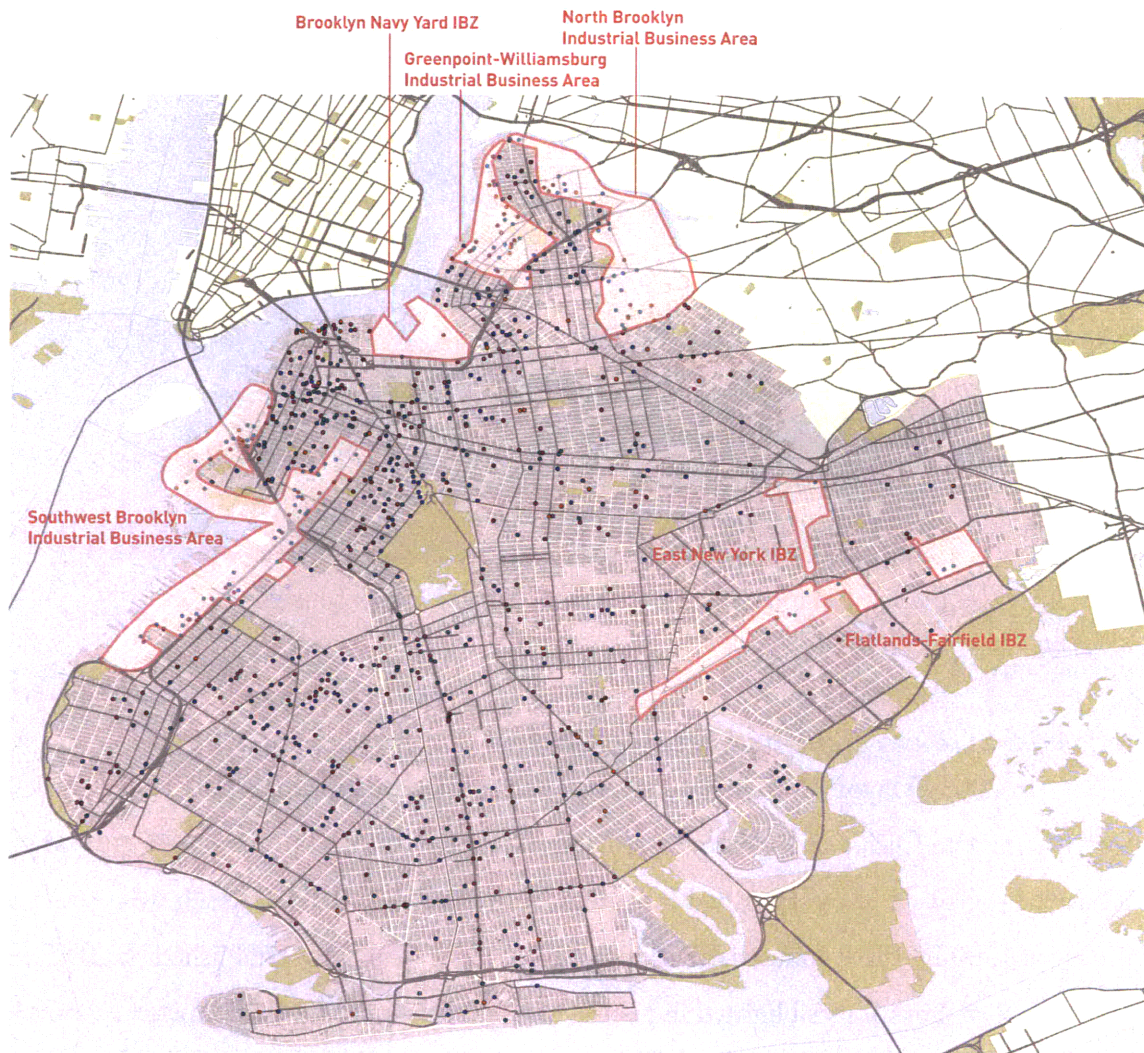


Figure 4.4. The intersection of creative production and NYC's Industrial Business Zone system. There are six Industrial Business Zones in Brooklyn. (Source: Adapted from NYC 2005)

Industrial land located in IBZs is guaranteed not to be upzoned for residential development and therefore somewhat protected, through zoning, from the effects of gentrification. In addition, the City offers relocation benefits to businesses that move to an IBZ, and also provides technical assistance to businesses through the IBZ's local management office (usually a local development corporation). Of the six IBZs in Brooklyn, three – Southwest Brooklyn, North Brooklyn, and East New York – also correspond to New York State Empire Zones, a designation which allows business owners to partake in tax and financing benefits in exchange for job creation.

In spite of the protections and benefits offered by the IBZ and Empire Zone programs, though, as Figure 4.4 indicates, there is little spatial overlap between Brooklyn's creative industry and City industrial planning. This is a likely result of the fact that industrial policy aimed to impact the largest manufacturers, and convince the biggest revenue-earners to remain in the City. In the 2005 Bloomberg industrial-policy guideline, media, technology, and fashion are mentioned as important for industrial retention (NYC 2005), but there are no policies in the document that specifically relate to creative-industry firms. The lack of spatial overlap between the City's IBZs and Empire Zones, on the one hand, and the actual clustering of creative production firms, on the other, indicates that the City's concept of 'industry' remains a twentieth century conception: heavy manufacturing that needs Euclidean zones apart from the neighborhoods where City residents live. Meanwhile, creative production is occurring all over Brooklyn – often in residential areas – but in smaller scale operations than has traditionally been the case. Brooklyn's creative firms are scattered over many neighborhoods, rather than adhering strictly to the zones drawn by the Office of Industrial Management and Business.

## **2. Determine the area and scale of cluster**

Once the creative landscape has been drawn, the area of intervention should be determined based on the varying needs of existing creative clusters in the landscape. It is helpful to conduct area needs assessments for each identified cluster, in order to understand the particular needs of residents, businesses, and places. A needs assessment should take the form of surveys and interviews of local business owners, independent creative producers, artists' assistance organizations, and public officials, to examine what hard and soft structures might be lacking. Figure 3.1 is used as a starting point to inquire as to the level of sophistication reached in each category within hard and soft infrastructure.

While it is not within the purview of this thesis to conduct a complete needs assessment of each of the three areas described above, the foregoing and following discussion of the three observed clusters can reveal many of the needs faced by each.

### *Greenpoint-Williamsburg*

It is no coincidence that the densest concentrations of creative businesses occur along the westernmost edge of Brooklyn, in close physical proximity to Manhattan. In the

neighborhoods of Greenpoint and Williamsburg, many of these creative businesses fall within the boundaries of the Greenpoint-Williamsburg Industrial Business Zone or the Industrial Ombudsman Area<sup>8</sup>. Many businesses take advantage of mixed-use zoning and warehouse buildings, especially along the waterfront. The local Greenpoint Manufacturing and Design Center refurbishes old factory and warehouse buildings for use by local furniture manufacturers and home goods designers. And on top of these formal, preservation, and incubation considerations are endless informal opportunities for residents to socialize, network, and otherwise generate creative ideas.

The creative cluster in Greenpoint-Williamsburg meets several hard infrastructure and soft infrastructure criteria set forth in Chapter Three. Further, it seems the window of opportunity for strengthening it may have passed; today, creative businesses are in imminent danger of being displaced as the neighborhood becomes increasingly popular and rents rise (and indeed, many artists have already been priced out, seeking cheaper rents to the east). Without the zoning protections afforded by the stronger Industrial Business Zone, many blocks in the Ombudsman Zone have already been converted for condominium use.

### *Downtown Brooklyn*

The cluster of firms situated in the downtown area comprises some of the most celebrated Brooklyn neighborhoods, including Brooklyn Heights, DUMBO<sup>9</sup>, Boerum Hill, Clinton Hill, Park Slope, and Prospect Heights. Creative businesses in this cluster are highly concentrated in these neighborhoods, particularly in the area bounded by the Brooklyn and Manhattan Bridge on-ramps, to the east, Prospect Park, to the south, and the Brooklyn-Battery Tunnel entrance, to the west. Creative firms largely cluster in two concentrations – to the west and to the east of the Gowanus Canal.

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<sup>8</sup> In contrast to the stricter “Industrial Business Zone,” the Ombudsman Areas of the IBZ program offer a wider array of uses (i.e., uses in addition to industrial). Businesses in the Ombudsman Areas can take advantage of business support services offered by the NYC Business Solutions Centers and the Industrial Business Service Centers (Greenpoint-Williamsburg is serviced by the East Williamsburg Valley Industrial Development Corporation), but receive no tax incentives for relocation or zoning protections.

<sup>9</sup> DUMBO stands for Down Under the Manhattan Bridge Overpass.

Like the Greenpoint-Williamsburg cluster, the Downtown Brooklyn cluster already operates with some sophistication in providing business services. The neighborhood benefits from being the political seat of the borough, with Borough Hall a major attractor to downtown. This also provides a set of small business development organizations that can assist startup firms in any sector. For example, the borough's local office of the NYC Department of Small Business Services is located in the neighborhood; so are the Brooklyn Chamber of Commerce (which also serves as the an Industrial Business Solutions provider) and the Brooklyn Economic Development Corporation. The Downtown Brooklyn Partnership coordinates the efforts of four local non-profits and business improvement districts<sup>10</sup> in order to advocate for economic development in the area.

Downtown Brooklyn's creative small businesses, like others, have benefited from their fortunate location near Brooklyn's economic hub in that informal opportunities for networking are created. They exist in the hard infrastructure, or physical spaces, in which these opportunities materialize, such as downtown's many pocket parks, green spaces, coffee shops, galleries, bars, and clubs. They also take place at social events occurring at these venues.

Areas where the Downtown Brooklyn cluster lack with respect to the criteria include the preservation of affordable spaces to protect residents from displacement, a district wide investment in creative spaces, and provision of apprenticeship opportunities. In addition, while clearly the number of creative firms indicates a strong local interest in creative industry, policy efforts have not targeted the creative firms for inclusion in the tax incentive or zoning benefit programs already in existence. Such programs would help provide the soft infrastructure necessary to strengthen the creative cluster in Downtown Brooklyn.

The formation of the Downtown Brooklyn Partnership, in 2006, as a public-private partnership with the City of New York, was intended to "to enhance Downtown Brooklyn's position as a viable mixed-use commercial, cultural, academic and residential center" (DBP 2009). Though it is advertised as a mechanism for supporting the arts (and

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<sup>10</sup> The Downtown Brooklyn Partnership coordinates the efforts of the Downtown Brooklyn Council, BAM Local Development Corporation, MetroTech Business Improvement District and Fulton Mall Improvement Association. (Source: Downtown Brooklyn Partnership website, <http://www.dbpartnership.org/>, accessed May 2009)

the Brooklyn Art Museum Cultural District) through economic development in Downtown, the Downtown Brooklyn Partnership, is in fact used to fast-track real estate development projects through the City's byzantine ULURP<sup>11</sup> process. With real estate development as the end game, development of the social fabric may not happen.

### *Southwestern Brooklyn*

In the southwestern quadrant of Brooklyn, creative production firms exist in less dense concentration than in Greenpoint-Williamsburg or Downtown. They are not as close to lower Manhattan, nor as accessible by transit. Yet there are hundreds of businesses in this area of Brooklyn where creative businesses can thrive. As artists and their colleagues in the for-profit sector are pushed out of more expensive creative clusters, neighborhoods such as Borough Park and Midwood become new centers for creative production – particularly along Coney Island Avenue where street life is already vibrant.

### *Determine Area of Cluster Intervention*

Downtown Brooklyn benefits from vibrant social networks and a coherent 'sense of self' upon which to build, yet its neighborhood strategy lacks in social investment for long-term preservation of its residents' home and workspace affordability, as well as development of skills in the creative industries. And Southwestern Brooklyn's needs are more basic, and the resultant strategies may begin from the ground, up.

I argue that existing spatial concentration of creative businesses indicate both need and opportunity to fill out the informal and formal infrastructures of a successful creative cluster. A strategy for improving the long-term viability of Brooklyn's creative clusters would both enhance the clusters that exist and do well today, while building in flexibility for future growth in the sector. This means improving the cohesiveness of the Downtown Brooklyn creative cluster, while establishing the hard and soft infrastructures for the southwestern Brooklyn neighborhoods to better support creative clusters

### **3. Partner with city agencies and institutions**

Partnerships with local city agencies and other non-profits offer capacity to provide a unified source for technical assistance, support, and networking resources to creative

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<sup>11</sup> The City's Uniform Land Use Review Procedure is the standard land application review process, known for its intensity and usually protracted time scale.

producers across Brooklyn. I propose that these partnerships be forged as an initial step towards creating a cluster management entity, so that the entity, can be formed on the basis of existing relationships and, once formed, build on existing relationships with the network of many relevant actors. (Moreover, financing would be easier to obtain from City agencies once proven benefits of a coordinated cluster management entity have already been proven.)

In order to gain a complete understanding of how best to intervene in the creative-production landscape, it is also critical to understand what organizations exist to assist both small businesses and startups – on the business side – and creative firms and artists – in the arts. Figure 4.5 below is an inventory of the public and non-profit agencies that exist on both sides of creative production; these entities are discussed in further detail below.



Figure 4.5. Organizational inventory in Brooklyn's creative-production landscape.

The organizational inventory indicates that small-business assistance government and non-profit agencies, listed at left, largely do not coordinate or collaborate with creative-sector agencies, listed at right, in the provision of services to creative-production firms. Yet the very nature of creative production work is that it straddles the two areas of



entrepreneurship and the arts. The above analysis indicates that there is need for a stronger collaboration and uniformity between the sectors in giving technical assistance to businesses, but also in planning networking and continuing education events.

#### **4. Form a cluster management entity**

While many organizations exist for both small business services and creative-sector services, coordination is lacking. And yet in order to meet the needs listed above, collaboration with the multitude of agencies, institutions, and organizations – a partial list of which is included in Figure 4.5 – is needed. The clusters that exist could survive without coordinated planning; however, a coordinated strategy is essential to ensuring the long-term viability of the cluster. As demonstrated by the above analysis, the current industrial zones and public support programs are not coincident with the real nature of the creative industry clusters that are emerging in Brooklyn today.

##### *Creative Brooklyn: A Creative Cluster Management Entity*

To redress the above deficiencies, a public-private management entity is proposed to coordinate the creative cluster's strategy. The management entity should operate under the auspices of the Brooklyn Borough President (and the City of New York), but remain independent to pursue its own strategic endeavors. A private foundation could provide the level of needed management structure; however, the tax and zoning benefits, as well as public funding, would be more difficult to obtain.

The management entity would manage all creative-cluster efforts in Brooklyn, in a single coordinated office. Similarly, all relationships between the Creative Brooklyn management entity and outside agencies can be streamlined through creative technical assistance specialists who assist Creative Brooklyn with the follow-through of its goals:

- 1. Act as a creative-space advocate for the development and preservation of creative spaces.**
- 2. Provide technical assistance, including job training and search services, to creative businesses and workers throughout the cluster.**
- 3. Function as a communication portal across all sectors of creative businesses.**

4. **Perform neighborhood outreach and policy advocacy to raise awareness, build brand identity and marketing.**

### *Phased Approach*

Creative Brooklyn could pursue a multi-phased approach to unifying the discrete clustering efforts of creative firms. Though there are many unknowns, I would propose that the management entity, once formed, commence work in the Downtown Brooklyn area in order to build support and awareness for the cluster, as well as establish relationships and a track record. As Downtown Brooklyn's creative initiatives are more accepted, barriers to collaboration with Southwestern Brooklyn may fall, and the next phase could entail expanding the creative cluster to include the Southwestern Brooklyn creative enterprises. This would have the beneficial effect of horizontal linkages between firms that are at varying degrees of refinement; the more-established firms (presumably in the Downtown area) could help with incubation of startup firms on Coney Island Avenue (as an example), but also learn from risk-taking projects that smaller, less well-established firms are wont to try.

### *Funding Creative Brooklyn*

I propose that the majority of initial funding for a Creative Brooklyn cluster management entity derive from public funding sources with assistance from private foundations. However, I suggest two possibilities for financing the management entity's activities outside the realm of using simple tax dollars.

First, a public art hypothecation fund could be established by the Brooklyn Borough President that would dedicate a small percentage of all income tax (or other sales tax – on lotto tickets, cigarettes, or alcohol, for example) towards establishing the funds for the cultivation of a creative industry sector. This hypothecation fund could finance both private and public-sector creative initiatives, and the benefit would be that collection of such funds would be relatively simple: a line item could be added to Kings County tax bills (or sales tax receipts).

Next, a linkage program could be established to link real estate development in the borough to the improvement of cluster management services in up-and-coming neighborhoods. By extension, the dedicated funds would financially support the

management entity and result in downstream benefits in the emergent cluster areas. This linkage program would be based on a similar program from the city of Boston, where the program was initially used to redirect benefits of downtown real estate development towards building affordable housing in developing neighborhoods (Lander *et al.*, 2004). Real estate projects of a certain size would be required to pay linkage fees for ten years to Kings County, and the cluster management entity would collect these fees in a fund and disperse them to finance wireless infrastructure, technical support services, job training sessions, networking events, and an annual conference.

## **5. Fill in the hard and soft infrastructure gaps**

Listed below are the specific strategies that Creative Brooklyn would use to strengthen the Brooklyn's existing creative clusters, and to foster the development of new clusters. The four goals of the Creative Brooklyn cluster management entity are laid out above. To fulfill these four goals, the cluster management entity would work to fill the gaps in hard and soft infrastructure through the following activities:

1. **Act as a creative-space advocate for the development and preservation of creative spaces.**
  - *Enact enabling zoning for live-work spaces.* Creative Brooklyn would advocate for less rigid zoning, relaxing single-use zoning to allow for flexible studio spaces for both living and working.
  - *Develop industrial buildings for various user types, parks and other 'third places'.* Different types of creative businesses require varying spaces, and development should also be planned for socializing and informal occasions.
  - *Build and preserve affordable housing and workspaces.* Creative Brooklyn should act as an advocate and developer of sustainable affordable spaces to maintain the housing and workspace stock as well as the existing character of neighborhoods.
  - *Negotiate community benefits agreements on behalf of the cluster.* Creative Brooklyn can provide a voice for the community to negotiate community benefits agreements into legally binding development agreements to ensure the provision of services and protection of affordable space.
2. **Provide technical assistance, including job training and search services, to creative businesses and workers throughout the cluster.**
  - *Provide small-business services to startups and ongoing assistance running and developing existing businesses.* Businesses at all levels of functioning would receive training in a central location, such as in partnership with local community colleges.

- *Link employees with jobs for apprenticeships.* Apprenticeships could be centrally vetted and listed through Creative Brooklyn's listing service, and trainees interviewed by staff.
  - *Provide ongoing job and technology training.* Similar to small-business training, job training could be in partnership with colleges and apply to all education levels.
  - *Partner with educational institutions for early creative-industry education.* Early exposure to the applied design, craft, and media fields would be established at local elementary and high schools.
  - *Facilitate the financing of new businesses.* Creative Brooklyn could serve as an additional loan guarantor for small business loans.
3. **Function as a communication portal across all sectors of creative businesses.**
- *Install and maintain a wireless network and create a social networking hub.* The wireless network would be centered around a main splash page serving all members of the cluster, with daily, weekly, and monthly news, a message board, and other social networking functions.
4. **Perform neighborhood outreach and policy advocacy to raise awareness, build brand identity and marketing.**
- *Provide marketing and other technical assistance for developing audiences.* Marketing materials would be both local and global, and focus both on products as well as awareness of Brooklyn authenticity of the products made in the cluster.
  - *Organize festivals, conferences, open studio tours, and networking events.* Cluster-based festivals would be oriented towards non-traditional idea exchange and innovation.
  - *Advocate for intellectual property rights and health care issues.* Firms would gain access to lawyers and those with expertise in issues of intellectual property and insurance.

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## CHAPTER 5

### Conclusion

Today, every American city from Santa Fe to Pittsburgh claims to have a creative city agenda. And in fact, the problem today is not in getting city mayors to buy-in to the concept of creativity; thanks to the popularity of Richard Florida's highly readable book, the idea has caught on. What seems to be the problem is implementation. Often when cities propose a creative city plan, cultural tourism is the end result. How can the city use its own workforce – its creative residents – to become to 'creative city'? I have attempted to answer that in this thesis, by uncovering why creative clusters succeed, and further, how to set the conditions for their success.

In a parallel exploration, my research has attempted to understand how production can remain in urban centers – counterbalancing the trends of deindustrialization over the last forty years. Creative goods consist of those goods whose inherent value comes not from a utilitarian concept of effectiveness, but instead from a subjective idea of taste, style, or pleasure. The production of these creative goods provides opportunities for planners to conceive of the future of urban production as something other than its industrial past.

Because what we produce in cities today is different, the way production occurs has also evolved. The modern-day technopoles of the twenty-first century are spatially disaggregated; they are dispersed but remain connected in a network through technology. Yet in spite of this optimistic vision of the future of urban production, there remain many obstacles to approaching a 21st-century vision of production.

First, in creative production, multiple sectors, scales, and actors are working creatively, yet largely unbeknownst to one another. Actions are uncoordinated, with little communication, and collaboration. The network does not yet formally exist.

Second, money – lots of it – is required to fund development of spaces for creative businesses. Creative solutions involving strategic partnerships must be forged in order to finance the development of creative cluster management entities.

Third, diverse, simultaneous, and coordinated strategies are needed: design, placemaking, planning, community development, policy, finance, and development are all necessary layers in a “creative industry toolkit”.

Fourth, communication is the key to success, and a network makes communication happen. Without knowledge-sharing and communication, the benefits of being in close spatial proximity to each other – and to New York City – are lost.

Finally, policy must play a part. The structure of the City’s Industrial Business Zones indicates clearly that there is a clear mismatch between what the City views as ‘industry’ and what is being produced. A first step must be for the City to realign policy to broaden its definition of what is considered manufacturing, so that protections and incentives can be extended to the thousands of small businesses citywide who should qualify. If the Industrial Business Zone is not the appropriate mechanism for creative firms to receive the benefits of both small-business and arts-organization assistance, then a new entity should be created to promote the development of the burgeoning – but disorganized – creative sector.

In Brooklyn, the future of creative production is bright: take, for example, recent press declaring Brooklyn the new home of design – “a space and a place where the thoughts and the ideas matter,” according to one participant and judge at the now annual BKLYN Designs conference that kicks off New York Design Week, the annual furniture and home design show (Scelfo, 2009). However, it is easy to mistake a noteworthy example of triumph in clustering as exemplar of the landscape. Certainly, it is not. Without close, managed collaboration in which the City has a stake, and for which development pays, creative production may remain, in Brooklyn, a 20th-century institution.

### ***Epilogue: Notes on Limitations and Areas for Further Research***

The purpose of this thesis was limited to a study of the possibility for clustering, and how creative clustering might work in Brooklyn. Given the framework presented in Chapter 3 and strategy of Chapter 4, several areas emerge for further research. First, in



order to understand, deeply, the needs and challenges faced by creative production firms and firm owners, an in-depth needs assessment is necessary, to collect stakeholder data to describe the spatial, policy, and business environments for creative industry. In attempting to determine a thorough strategy from start to finish, time constraints prevented my research from including a needs assessment or stakeholder interviews.

This research is also limited by the quality of data obtained. As discussed in several sections, a significant hurdle in the creative city debate is defining the nature of creative producers. Finding data is therefore difficult, because the NAICS codes are not conducive to 21st-century production methods; rather, they are difficult to use to discern a creative worker at an 'uncreative' job or vice-versa. An alternative method of analysis would be to study separately the spatial distribution of each industry under NAICS, in order to understand where architecture firms cluster versus, for example, applied design firms.