

The Local Innovation System as a Source of ‘Variety’: Openness and Adaptability in New York City’s Garment District

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RANTISI N. M. (2002) The local innovation system as a source of ‘variety’: openness and adaptability in New York City’s Garment District, *Reg. Studies* **36**, 587–602. Employing an evolutionary economics framework, this paper investigates the innovation process in the New York City Garment District’s women’s wear industry. It analyses the ways in which Garment District designers have been able to exploit innovative ideas from an emerging design cluster on the Lower East Side of Manhattan, and the role that the District’s institutional infrastructure plays in facilitating this process. The paper argues that the *variety* as well as the economic coherence provided by the District’s design innovation system underlies its ability to adapt to shifting competitive pressures.

New York City Apparel industry Fashion design Regional innovation system Evolutionary economics

RANTISI N. M. (2002) Le système d’innovation local comme source de ‘variété’: ouverture et adaptabilité dans le vêtement à New York, *Reg. Studies* **36**, 587–602. A partir de la théorie économique évolutionniste, cet article cherche à étudier le processus d’innovation dans le vêtement féminin à New York. On analyse les façons dont les modélistes ont pu exploiter des idées novatrices qui proviennent d’un groupe de modélistes naissant situé à Manhattan dans le Lower East Side, et le rôle que joue l’infrastructure institutionnelle du district pour faciliter ce processus. L’article affirme que la *variété* ainsi que la cohérence économique que fournit le système d’innovation conception sous-tend sa capacité de s’adapter aux forces compétitives changeantes.

Ville de New York Vêtement Mode
Système d’innovation régional Economie évolutionniste

RANTISI N. M. (2002) Das ortsansässige Innovationssystem als Quelle der Abwechslung: Offenheit und Anpassungsfähigkeit im Distrikt der Bekleidungsindustrie von New York, *Reg. Studies* **36**, 587–602. Dieser Aufsatz untersucht den Innovationsprozess in New Yorks Distrikt der Damenbekleidungsindustrie im Rahmen der evolutionären Wirtschaftswissenschaft. Es werden Wege analysiert, die es Entwürfen für den Bekleidungsindustriedistrikt gestatten, innovative Ideen einer im Aufsteigen begriffenen, in der Lower East Side von Manhattan ansässigen Entwferfergruppe zu übernehmen, und damit die Rolle, die die institutionelle Infrastruktur des Distrikts bei der Durchführung dieses Vorgangs spielt. Der Aufsatz vertritt den Standpunkt, daß der Anpassungsfähigkeit sowohl Vielfalt als auch das vom Distrikt beigesteuerte System der Entwurfinnovation zu Grunde liegt.

Die Stadt New York Bekleidungsindustrie
Modeentwürfe Regionales Innovationssystem
Revolutionäre Wirtschaftswissenschaft

INTRODUCTION

The demise of mature manufacturing sectors in advanced capitalist societies has been foretold by scholars and policy makers alike over the last few decades. Advances in information and communications technology, it is argued, have paved the way for the emergence of a new ‘knowledge’ economy where competitive advantage and wealth generation rests increasingly on those economic activities based on learning, innovation and knowledge creation and less on the processing of physical materials (CASTELLS,

1989). Proponents of this view (see BELL, 1973; CASTELLS, 1989; CASTELLS and HALL, 1994) cite the increasing proportion of the labour force and economic output constituted by these economic activities, particularly the advanced services (i.e. the quaternary sector) such as finance or insurance, which draw heavily on high technology to manipulate information flows. Correspondingly, traditional, low technology sectors are viewed as ‘sunset activities’, which can be more efficiently undertaken in low-wage contexts.

More recently, however, this narrow interpretation of the knowledge economy has been challenged by a

recognition that physical goods also have *intangible* qualities (or 'symbolic forms'), and that these qualities increasingly serve as the basis for their economic success. This perspective, most persuasively articulated in the works of SCOTT, 1996, 2001, on the cultural products industries, contends that the transformation to a knowledge economy has facilitated the convergence of the cultural and the economic, such that a 'clear distinction between the symbolic and utilitarian in many if not most of the products of the contemporary economy is rarely feasible' (SCOTT, 2001, p. 12). According to proponents of this view, a consequence of this convergence and of the continual shifts in consumer preferences are that those sectors, be they goods- or service-producing, that can most creatively and consistently exploit the symbolic aspects inscribed in their products are also the ones which will define the leading edge of late capitalism (LASH and URRY, 1994; SCOTT, 2001).

The New York City Garment District serves as an interesting case in point. The Garment District, which is home to the city's women's wear industry, has faced formidable challenges in the last several decades. With the advent of the North American Free Trade Agreement (NAFTA) and other trade liberalization measures and the increasing globalization of the apparel commodity chain, local apparel manufacturers have been subject to heightened competition from low-wage producers overseas (ROSS, 1997; JOHNS and VURAL, 2000). Capital deregulation and the consequent retailer concentration, with the top 10 retailers now controlling 47% of total US apparel sales, has limited the number of buyers to which manufacturers can sell (*Women's Wear Daily (WWD)*, 1999).¹ Within the last three years alone, a tripling of the Garment District's real estate costs from US\$10 to \$30 a square foot has not only forced some manufacturers to relocate operations, but has put many out of business altogether (BOWLES, 2000). And the local government's recognized bias against all but high-end manufacturing has done little to stem the tide (MARKUSEN and GWIASDA, 1994; NEW YORK INDUSTRIAL RETENTION NETWORK (NYIRN), 2001).²

Despite these challenges, however, the Garment District continues to thrive in an increasingly global economy. New York City manufacturing more generally and apparel specifically have faced significant declines in employment (at an average annual rate of 5.0% for each) and in number of firms (at average annual rates of 4.0% and 3.3%, respectively) over the last three decades. The women's wear sector, in contrast, has exhibited moderate declines in employment (at an average annual rate of 1.6%) and in number of firms (at an average annual rate of 1%) for the same time period (see Figs. 1 and 2). And while Los Angeles has surpassed New York City in terms of total apparel employment, New York City remains the industrial centre for the high-end fashion segments of the

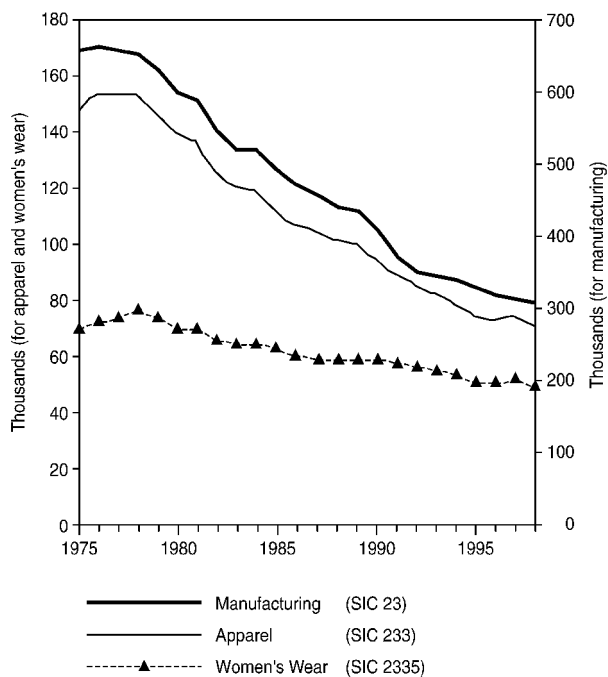


Fig. 1. *Employment in New York City manufacturing and apparel industry, 1975-98*

Source: US Bureau of Labor Statistics.

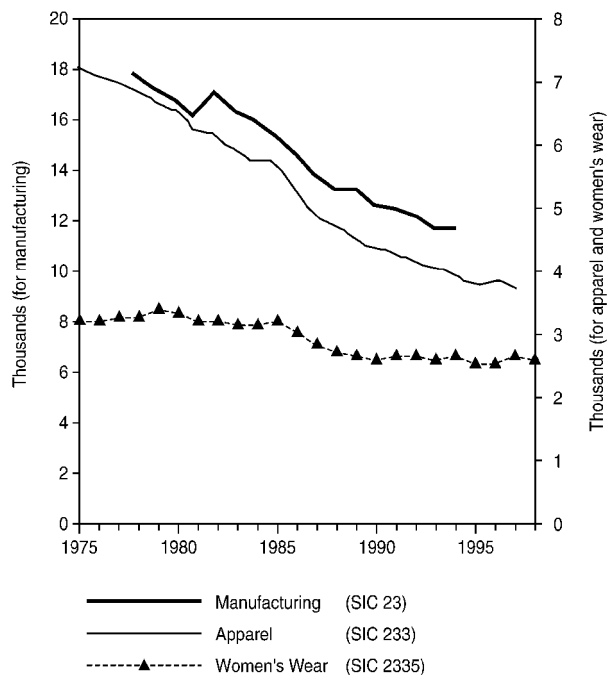


Fig. 2. *Number of firms in New York City manufacturing and apparel industry, 1975-98*

Source: US Bureau of Labor Statistics; US Counties: A Statistical Abstract Summary, 1998.

industry, accounting for 34% of US dress manufacturing employment (see Table 1). To date, the apparel industry has retained its role as the primary manufacturing employer in the city and continues to

Table 1. Employment and value-added in the Los Angeles and New York City women's wear industry, 1997¹

	Employment		Value-added (\$000s)		Employment		Value-added (\$000s)	
	Women's and girls' cut & sew (NAIC 31523)	% of US industry	Women's and girls' cut & sew (NAIC 31523)	% of US industry	Women's and girls' cut & sew: dresses (NAIC 315233)	% of US industry	Women's and girls' cut & sew: dresses (NAIC 315233)	% of US industry
Los Angeles	31,906	20	2,428,128	20	7,439	27	624,227	30
New York City	25,575	16	2,143,055	18	10,008	34	837,872	40

Notes: 1. In 1997, the US Census Bureau devised a new North American Industrial Classification (NAIC) scheme and the 'women's and misses outwear' category (SIC 233) now most closely corresponds to 'women's and girls' cut & sew manufacturing' (NAIC 31523).

Source: Economic Census, 1997.

generate an average of \$4.5 billion in sales annually (*Economic Profile 2000, 2001*).

The Garment District's comparative advantage lies in the fact that the women's wear industry competes on the basis of design and image promotion as well as cost. Within the District, a host of intermediary institutions – including design schools, forecasting services and buying offices – have emerged to support this function. This institutional infrastructure has created a local production culture or local 'synergy', which supports the individual firm's design innovation process, and consequently, minimizes uncertainty (RANTISI, 2002). The District's *adaptability* – i.e. its ability to reinvent and renew itself continually in the face of internal and external pressures – however, rests not only on the prevalent synergy that its innovation system provides but on the ability to balance this synergy with an openness to novelty.

In the discussion that follows, I document the design innovation system of the Garment District. I investigate the degree of openness in this District by examining the ways in which new ideas or stimuli from an emerging design community on the Lower East Side of Manhattan have been integrated into this system, drawing particular attention to the role of intermediary institutions in facilitating the transmission of ideas. Since the community on the Lower East Side is characterized by small networks of independent designers and boutiques, the designers there are shown to be more experimental and creative than those in the corporate Garment District. Consequently, the integration of Lower East Side design ideas is one means by which the District can accommodate divergent organizational forms or what MARSHALL, 1890, has termed 'variance' – a central feature of the innovation system which underpins the generation of ideas without imposing uniformity (MASKELL, 2001). In analysing this case, the paper draws explicitly on two interrelated bodies of literature – evolutionary economics and the regional innovation systems approach – to establish the social, institutional and territorial bases for innovative activity. At the same time, a focus on 'variance' in this analysis challenges the prevailing tendency of these literatures to over-emphasize the significance of coherence and

commonality at the expense of an analysis of the role of novelty in encouraging adaptation.

EVOLUTIONARY ECONOMICS AND THE REGIONAL INNOVATION SYSTEM APPROACH: THEORETICAL INSIGHTS INTO LEARNING AND ADAPTATION

The view that economic activity is shaped by systemic forces rather than a collection of atomized firms has its theoretical foundations in the field of evolutionary economics.³ In contrast to the orthodox assumption that economic behaviour is characterized by perfectly rational and informed individuals whose choices enable a Pareto optimal allocation of goods and services, evolutionary economics begins with the assumption that actors are making decisions on the basis of imperfect information (codified and tacit) and consequently, that their choices tend toward multiple equilibria, leading to divergent economic development paths (NELSON and WINTER, 1982; NELSON, 1995). The choices, however, are not completely random. Equally central to this approach are the notions of 'inheritance' and 'selection' borrowed from biology. The notion of inheritance is linked to the view that behaviour is guided by norms and habits, which are persistent traits. In applying this feature to firms, NELSON and WINTER, 1982, contend that firms have 'routines' which help to manage the complexity of the innovation process, and that these routines, if successful – i.e. enable firms to meet their profit criterion – are carried over into future generations. In contrast to a strict Darwinian interpretation, however, in Nelson and Winter's theory, the firm's routines can be adapted if profit levels are not met. The routines are also 'selectable' in that firms with certain routines may do better than others and, if so, their relative importance is augmented over time.

The significance of evolutionary economics for analysing the innovation process is that it underscores the fact that this process is embodied within a set of routines and habits, or more broadly, institutions (both formal and informal). As such, it has served as the

theoretical foundation for a range of institutionalist approaches, with the most notable one being the National Systems of Innovation approach. Proponents of this approach, such as FREEMAN, 1987; LUNDVALL, 1992; and NELSON, 1993; apply the features of evolutionary economics to another dimension by positing that firms, as the locus of innovative activity, are themselves embodied within a larger national institutional and cultural environment. In this dynamic view of economic change, firms are viewed as part of a system, as opposed to isolated, individual decision-making units, and their capacity to innovate is understood to be influenced by the other units and the contextual specificities (e.g. rules, norms, regulations) of the system (ARCHIBUGI and MICHIE, 1997). The 'systemness' which characterizes the firms' interrelations is said to ensure a stable flow of information by restricting the range of options and promoting common understandings which guide the firm's activities (HODGSON, 1993).

More recently, in light of the shift to post-Fordism, which has implied the delayering of Fordist corporate structures at a micro-level and increasing strains on the Keynesian production-consumption link at the macro-level, some theorists have argued that the region – as opposed to the nation – is the more appropriate scale for identifying the systemic properties which shape a firm's activities. According to these theorists (e.g. SCOTT, 1988; SAXENIAN, 1994; STORPER, 1995, 1997; COOKE and MORGAN, 1998), the vertical disintegration of economic activities means that firms can no longer operate as self-sufficient agents, and that collaboration between specialized firms has become essential for adapting to rapidly changing markets. Insofar as this form of collaboration requires relationships based on trust, which are facilitated by the frequent interaction of proximate actors, regional clusters, it is suggested, will have an important role to play in the emerging paradigm of socio-economic co-ordination (STORPER, 1997; MALMBERG, 1996; MALMBERG and MASKELL, 2002).⁴

Indeed, the *regional* sources of competitive advantage have been documented and cited in a burgeoning literature on post-Fordism, ranging from industrial district theories (BRUSCO, 1982; BECATTINI, 1990) to theories on the learning region (ASHEIM, 1997; MORGAN, 1997). As HOFMAIER, 2001, notes, the emphasis of these approaches tends to be *agent-centred*, with industrial district theorists focusing on the significance of a shared culture and learning region theorists on the need to promote networking and face-to-face interactions to encourage entrepreneurial learning. One approach which has attempted to develop a theoretical and empirical construct that would allow for a systematic comparison, however, is the Regional Innovation Systems (RIS) approach. While the RIS camp shares the same concerns as the other approaches, it tends to emphasize a *structure-centred* perspective to innovation

by specifying the 'supply architecture'. Like the National Systems of Innovation approach, this approach draws on evolutionary economics to establish the institutional nature of the innovation process, and seeks to identify the key elements (e.g. research institutes, customers and suppliers) which influence a firm's capacity to innovate. Moreover, this approach emphasizes the need to analyse the governance of relations between key innovating groups and the mode of innovation diffusion to assess the extent to which a region can be said to operate as a 'system' (BRACZYK *et al.*, 1998). Definitions of a 'regional innovation system' vary, but this construct can be described as 'the set of economic, political and institutional relationships occurring in a given geographical area which generates a collective learning process leading to rapid diffusion of knowledge and best practice' (NAUWELAERS and REID, 1995, p. 13).

RETHINKING THE NATURE OF THE INNOVATION PROCESS AND THE ROLE OF 'VARIETY'

The RIS approach and the field of evolutionary economics on which it is based have made significant contributions to understanding the ways in which economic processes are stabilized and given meaning in a context of uncertainty, imperfect information and bounded rationality. These contributions are particularly pertinent for a post-Fordist era of capitalist accumulation, which is characterized by heightened market volatility. The focus on regions, moreover, highlights the nature of innovation as a *geographical* process, as highly localized production relations can enhance the social capital (e.g. Sabel's 'studied trust' or Storper's 'untraded interdependencies') needed for effective transfer of knowledge, particularly *tacit* knowledge (GERTLER, 1995; MASKELL *et al.*, 1998). Recently, however, GRABHER, 2001, has noted that studies depicting regional clusters – or what he terms 'the local' – as a source for innovation have tended to over-emphasize the significance of homogeneity for learning and adaptation. While industrial district analyses in particular stress the necessity of shared norms and expectations for promoting 'learning by interaction', analogous assumptions can be found in the RIS approach (BRACZYK *et al.*, 1998). The predominant view is that external economies are achieved as costs and risks are socialized and technical expertise pooled, allowing for continual innovation, and thus for adaptation to new market pressures (BRUSCO, 1982; SAXENIAN, 1994).

What is under-emphasized in these accounts is the equally central role played by diversity or 'variance' in spurring the innovation process. They tend to overlook the benefits that accrue when firms interact with, or are exposed to, competing or divergent views or methods. As a corrective to these accounts, some of the observations by MARSHALL, 1890, and VEBLEN,

1914, are instructive. Marshall's observation, as reintroduced by LOASBY, 2000, and MASKELL, 2001, is that the advantages of variance stem from the parallel performance of similar tasks by firms with dissimilar views. These firms tend to develop a variety of solutions to their daily challenges because of differing beliefs about how success can be attained. Empirically, the most visible and tangible form these solutions can take are in the varied end-products that firms produce; in the case of apparel, the end-products, i.e. the designs, can vary in terms of the colour or shades, the fabric or combination of fabrics, and the silhouette or style for a particular item. These solutions however can also take the form of alternative production organizations (e.g. vertical integration vs. disintegration); varied production processes (e.g. custom or small batch production vs. long runs, mass production); new/improved production methods/process technologies; modes of workplace organization, more generally; or varied distribution channels (e.g. mass market distributors vs. niche, speciality outlets). Consequently, the proliferation of distinct practices – as opposed to the diffusion of a single 'best practice' – provides a greater range of options in a firm's 'selection environment' and to which firms can adapt and co-evolve.

Though much of Veblen's analysis on the determinants of innovation has stressed the relative invariance and self-reinforcing character of institutions, HODGSON, 1994, notes that Veblen has identified other sources of technological change. One source is what he has termed 'idle curiosity', a tendency toward experimentation which could generate novelty in an on-going manner. An alternative source of change is the conflicts arising from the disjuncture between institutions of a past era which are carried over into a new era and the habits or routines generated by the new material conditions. Veblen here was referring to the tensions which could occur *within firms*, possibly leading to crisis and a new development trajectory (HODGSON, 1994).⁵ But his point is equally valid for the disjuncture between parallel, yet distinct organizational systems existing *within the same cluster or region*.

Some of these issues concerning variance have filtered into more recent analyses on institutional lock-in or on the 'weakness of strong ties' (AMIN and THRIFT, 1994; AMIN, 1999; GRABHER, 1993; GRANOVETTER, 1985; UZZI, 1997). In these studies, the authors have acknowledged a need for firms in clusters to forge ties with their wider environment in order to prevent network closure or self-referential behaviour, which may be encouraged by the strong network ties between economic actors in a cluster. The authors talk of the need for a 'soft' – rather than a 'hard' – assembly (often associated with 'weak ties') which could allow for institutional monitoring and reflexivity. Few, however, discuss or empirically illustrate the mechanisms by which this can be done. And policy prescriptions continue to be oriented towards

building institutional thickness rather than institutional reflexivity (e.g. see ROSENFELD, 1996).

An examination of the case of the New York City Garment District can provide a useful window onto the process. This story of renewal sheds light on how the District's women's wear manufacturers⁶ incorporate variety into their designs by exploiting innovative ideas from a new design community – a community that operates under a mode of production and distribution which is distinct from that of the Garment District. Moreover, the case is significant in that most empirical studies on regional innovation systems (or learning regions), with the exception of some of the earlier works on the Italian districts, have focused on high-tech industries; few have considered the institutional basis for innovation in low-tech industries.⁷ Although the scale or unit of analysis in this study is arguably more 'local' than 'regional', the RIS approach is still relevant since the systemic properties that influence designers' choices in this industry operate at a local scale and the RIS approach is broadly concerned with identifying those properties at a sub-national scale. Following STORPER and CHRISTOPHERSON, 1987, and CREWE, 1996, I focus on the design process as the 'moment of innovation' or R&D for the industry since this process determines a product's image, i.e. its 'symbolic form', which is the basis for its distinctiveness and success in the marketplace. In the sections that follow, I provide a brief overview of the history of the Garment District and its current institutional infrastructure. Then I examine the structure of a new, parallel design community on the Lower East Side, and illustrate the ways in which this 'sub-system' has been integrated in the Garment District design innovation process. An investigation into this process reveals the explicitly *spatial* foundations of innovative activity for this industry and the ways in which continued exposure to a distinct 'ecology of creativity' promotes learning (GRABHER, 2001). In contrast to the dominant emphasis on coherence, co-operation and commonality in the existing literature on clusters and regional innovation systems, this case illustrates the equally important role of local competition and variety as a key source of innovative dynamism.

A thorough analysis of the design innovation process requires that I capture the perspectives of all the major elements in the local innovation system. Thus, my research is based on two complementary forms of primary information: 75 semi-structured interviews with designers, manufacturers, retailers and representatives from buying offices, forecasting services, trade show companies, trade associations, design schools and other fashion-related services in New York City's Garment District and Lower East Side design community, conducted in November–December, 1999; January, 2000; and February 2001; and survey responses from 50 Garment District manufacturers collected in January–March 2000. My research also draws on interviews

with public and non-profit organizations related to the promotion of the industry, including the Fashion District Business Improvement District, the Garment Industrial Development Corporation, the New York City Department of Planning, and the New York City Department of Business Services, in addition to a survey of the Fashion Group International archives and other historical and secondary sources. While the survey responses provide a general indication of the trends and patterns of relations between institutions, the knowledge gained from the interviews generate deeper insights into the systemic nature of key local economic relationships.

THE EVOLUTION OF THE WOMEN'S WEAR INDUSTRY IN THE GARMENT DISTRICT

In contrast to that of *haute couture* in Paris (SCOTT, 1997; STORPER, 1997), the women's wear industry in New York has its origins in *ready-to-wear*. Developed by retailers and wholesalers (mainly German Jews) in the mid-1800s, this mass market industry emerged to meet a surge in consumer demand as the US was experiencing its first signs of industrialization and urbanization. Its rise and expansion coincided with two key developments. The first was Elias Howe's invention of the sewing machine in 1846, which allowed for volume production. The second was a major wave of immigration to New York from Southern and Eastern Europe, consisting primarily of Jews and Italians, starting in the 1880s. This latter development provided a pool of skilled labour, as tailoring had traditionally been a Jewish occupation, as well as a large supply of cheap labour. It also ensured that the industry would be concentrated in New York City, which served as a port of arrival and social centre (HELFGOTT, 1959; ZEITLIN, 1961; WALDINGER, 1986).

Within New York, the industry's activities were initially located in the Lower East Side, where most of the immigrants resided. However, as retailers began to move their stores northward, following the residential shifts and the establishment of the Pennsylvania Railroad Station in midtown Manhattan, the manufacturers soon followed. This move allowed the manufacturers to be accessible to local and out-of-town buyers and to their employees, who were steadily moving to other parts of the city. It also enabled them to acquire fancy showrooms, in which to present their collections. By the 1920s, a new centre for the industry, which came to be known as the Garment District, was firmly established in the western half of Midtown Manhattan (HELFGOTT, 1959; ZEITLIN, 1961).

During this same period, the women's wear industry witnessed the emergence of key institutions which would help to balance mass production with the consumption capabilities of the economy. At the consumption end, the development of a range of retailing

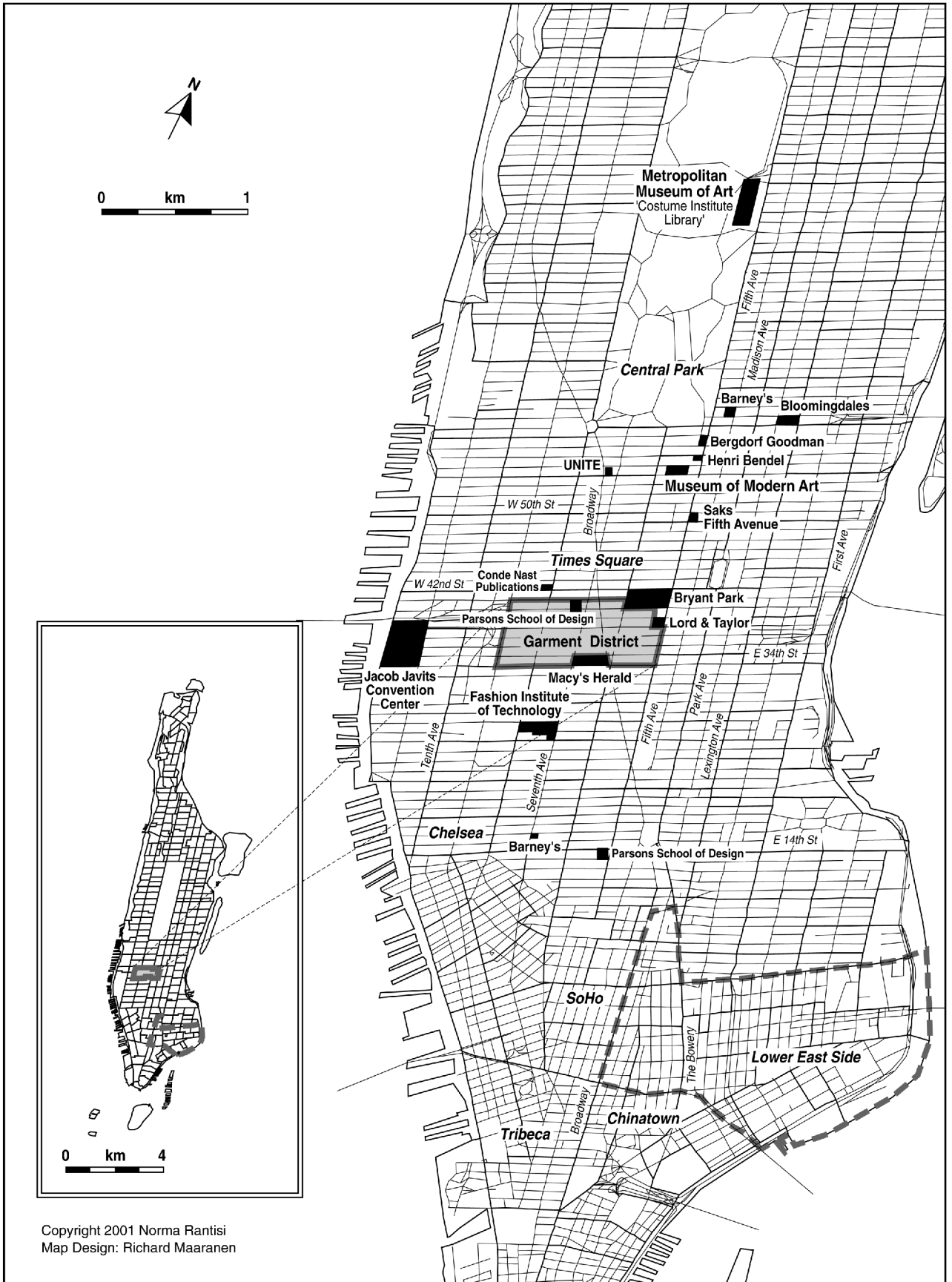
formats in New York, such as department stores and specialized boutiques, served the varied needs of a large US market. Initially, many of the stores and boutiques had in-house designers and oversaw the production process themselves, but eventually, as the market expanded, these functions were farmed out (MILBANK, 1989). An extension of the retail sector is the buying office which was established to assist out-of-town buyers to navigate the New York City market by linking them to producers (SICES, 1953). This period also saw the emergence of fashion magazines such as *Harper's Bazaar* and *Vogue*. These magazines provided fashion editorials which established the trends for a given market segment and ensured the homogenization of interests necessary to sustain a ready-made industry (MEYER, 1976; MILBANK, 1989).

At the production end, there was the establishment of the International Ladies Garment Workers' Union in 1900, which pursued safe working conditions and standardized wage compensation. Advances in fashion education at the Pratt Institute (established in 1888) and Parsons School of Design (established in 1897), and later the establishment of the Fashion Institute of Technology (FIT) in 1944, ensured a steady supply of skilled labour for the expanding industry. And the emergence of trade associations, such as the Fashion Group, linking elite representatives of fashion magazines with local designers, facilitated the promotion of these style innovators (Fashion Group International Archives; SCRANTON, 1998), thus completing the circuit between production and consumption.

MAPPING THE CURRENT INNOVATION SYSTEM

Today, the apparel industry in New York City remains concentrated in the Garment District (now commonly referred to as the Fashion Centre or 'Seventh Avenue'), which is bordered to the north by 40th Street, to the south by 34th Street, to the east by Fifth Avenue and to the west by Ninth Avenue (see Fig. 3). Roughly 82% of the industry activity for New York City is based in Manhattan, and 75% of that total is concentrated in this four by six-block area (*Economic Profile 2000*, 2001). Women's wear comprises the bulk of the economic activity (see Fig. 4).

The ethnic nature of the industry persists. However, Jews and Italians now hold the higher-end occupations of wholesaler or designer while recent Chinese and Dominican immigrants (primarily women) perform the routine production work (LEVITAN, 1998). Low barriers to entry safeguard apparel's status as an immigrant enterprise, but also contribute to its highly competitive market environment. Of the 6,000 firms located in this area, approximately 4,000 are fashion-related businesses, which – in addition to apparel manufacturers and contractors – include representatives of textile mills, button and trimming suppliers, producers



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Map Design: Richard Maaranen

Fig. 3. The New York City Garment District
Source: CACI, Map Data 2000.

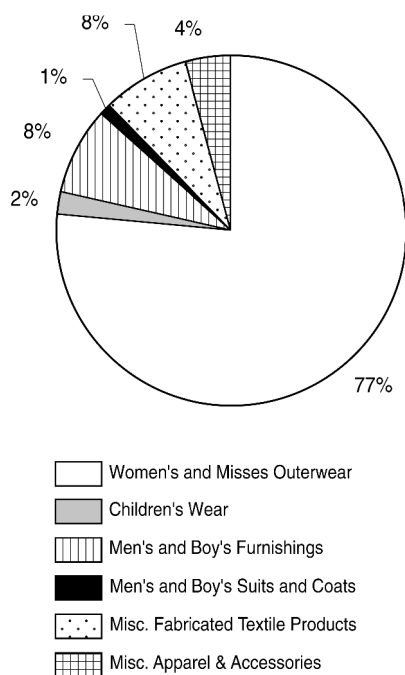


Fig. 4. New York City apparel production shares

Source: US Bureau of Labor Statistics: Public Data Query, 1999.

of accessories/jewellery, showrooms, wholesale and retail shops, buying offices, forecasting services and two of the major fashion design schools in the city (FIT and Parsons) as well as a rich array of other legal, financial and supply/repair support services (NYIRN, 2001; see Fig. 5).

This cluster of specialized, interrelated services provides significant externalities to apparel manufacturers, the overwhelming majority of which are small to medium sized enterprises (*Economic Profile 2000, 2001*). Their proximity to buyers, suppliers and support services facilitates the vertical flows of information essential for the maintenance of an innovative industrial cluster (PIORE and SABEL, 1984; CREWE, 1996; personal interviews with manufacturers and representatives of the Fashion Centre BID, 1999, 2000). The actual organization of the District innovation system is depicted in Fig. 6.

More specifically, the respective role played by each agent in the general design process is as follows. The New York City design schools serve as the initial training ground for most Garment District designers and as important local institutions for defining a shared body of industry knowledge and practices.⁸ Here, they learn to design products which are not only creative, but which can be easily produced, reproduced and marketed at an affordable cost. The heads of the two largest local fashion design programmes contend that merchandising is a key element and distinctive strength in the New York City fashion design curriculum and one which is reinforced through strong school–industry links, via internships and guest lectures by industry

heads (personal interviews, 1999). According to the internship director at FIT, roughly 45% of their fashion design graduates go on to work for the companies with which they had held internships (personal interview, 1999).

Designers who go on to become the head designer for a company have the responsibility of developing a concept for a given season's collection, i.e. selecting the general colours, fabrics and silhouettes that they will use. Inspiration for this concept can come from many sources, and some of the key sources cited in the interviews that I conducted were old sketches from the Fashion Institute and Costume Institute libraries, museum exhibits, architectural forms, movies, travel, fashion magazines, and the local shops and boutiques. Many designers acknowledged the benefits they derive from New York City's diverse retail market and sophisticated consumer. As one designer suggests: 'many different lifestyles are represented in a small radius. There's an energy in Soho (retail district) that's different from the energy on Madison (Avenue). You can get whatever you want. But New Yorkers also have a lot of style and there's a lot happening on the street. Walking around and looking at the street ... you can get inspiration that way too' (personal interview, 2000).

The materialization of a concept however is mediated by other local institutions. Designers will often consult forecasting services, trade journals such as *Women's Wear Daily (WWD)*, and fashion magazines' editorials for the latest trends when selecting specific fabrics, colours and styles. These services enable designers to monitor the competition and to document what is feasible and profitable for specific market segments (RANTISI, 2002). For all but the very large companies, these choices are also conditioned by whether or not they can obtain affordable fabrics and yarns. Several of the designers interviewed complained that most of the domestic textile mills require a minimum yardage, making fabrics costly to purchase and often leaving them with excess inventory (personal interviews, 1999, 2000). Consequently, a designer will often 'go back and forth between the concept and the fabric' (personal interview with a designer, 2000).

At the other end of the commodity chain are the retailers and buying offices, which also influence the selection process. Due to a concentration of retailing power, retailers are increasingly making demands in terms of the colours, patterns or fabrics used based on last season's sales, and the final collection for a season is often the product of this local 'negotiation' (personal interviews, 1999). Once these initial selections are made and samples produced, trade shows and apparel marts (the designated weeks for buyers' visits) provide an opportunity for retail buyers to shape further the selection process by indicating which samples they are willing to purchase and the price points at which they are willing to buy them. Many designers complain that

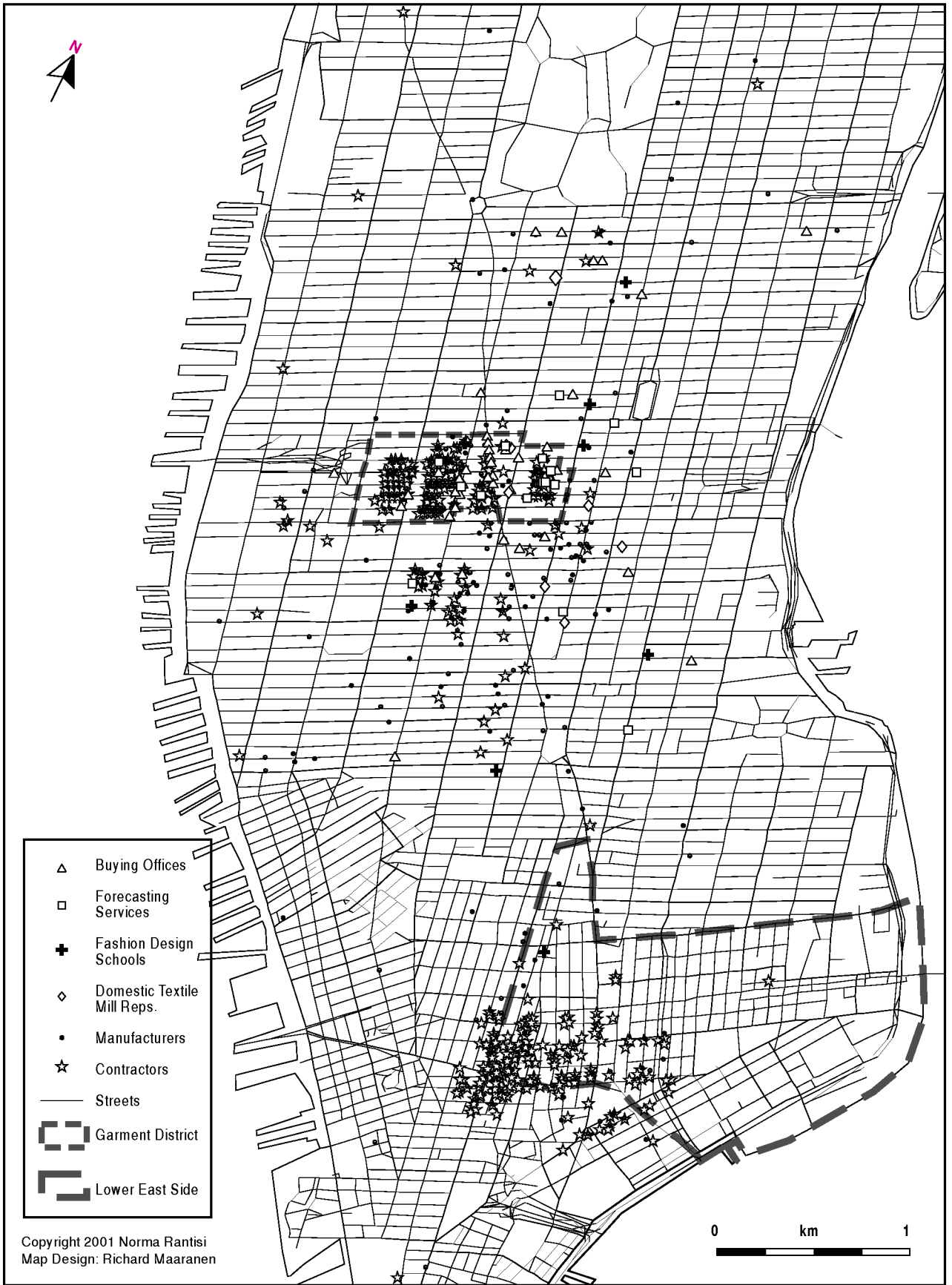


Fig. 5. The New York City fashion design production system

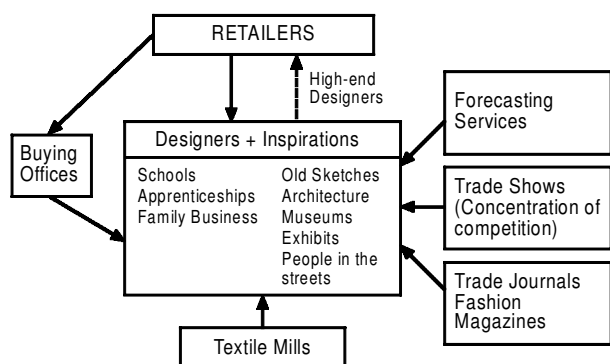


Fig. 6. Garment Design District innovation flows (1)

these choices severely limit their production options and even strain their relations with buyers; ‘all they care about is the bottom-line’ was an often-repeated phrase (personal interviews, 1999, 2000). The buying offices also play an important role in the actual design process. According to one buying office executive, ‘our main responsibility is to edit the market for retail buyers, to help them find a manufacturer that can suit their clientele’s needs, but we also make suggestions to manufacturers about which colors and styles to use for a particular customer’ (personal interview, 1999). As indicated by the dotted line in the diagram, there are only a few, select, high-end designers who are in a position to challenge retailer dominance in this process and who could possibly influence retailer choices (LUBOW, 1999).

THE INNOVATION SYSTEM AS A SOURCE OF COHERENCE

The innovation system that has emerged in the Garment District serves to structure a firm’s design process. It channels the process by developing a specialized labour market, facilitating the linkages between key innovating actors and other groups in the industry, and defining (and redefining) the use-values of commodities. Moreover, the ‘common spaces’ provided by intermediary services (e.g. trade shows and buying offices) enable manufacturers to observe, monitor and gossip about what the competition is doing. By providing critical information on market trends, inter-firm relations contribute to the innovation process not only directly but also indirectly by establishing the rules, expectations and bases for future negotiations, thereby creating a localized culture for the production of designs (STORPER, 1997). Thus, even as relations between apparel manufacturers are characterized by high levels of competition and relations between manufacturers and retailers are increasingly strained, a locally shared base of knowledge and reinforcement of ‘how business is done’ ensures the coherence and stability of the overall system.⁹ And this coherence is further reinforced by the dominant position of mass market retailers – a position

which guarantees the privileging of commercial (or risk-averse) over aesthetic (or experimental) concerns.¹⁰ As one retailer suggests: ‘New York City is about business and money, not art . . . retail distribution networks are already established and designers must operate within these networks’ (personal interview, 2000).

The structural features of the system, however, can also hinder future development and adaptation if the innovative dynamics in the District become subject to ‘lock-in’. Indeed, this prospect is evident in the strategies recently pursued by larger apparel companies to increase their profits through means other than direct investment in the design innovation process. Examples of this include the acquisition of Club Monaco by Ralph Lauren, and the acquisition of Laundry by Liz Claiborne in their efforts to target younger, more contemporary markets. Similarly, Calvin Klein and Donna Karan have undertaken licensing ventures with other apparel and accessory companies in order to increase their visibility, penetrate new markets and cut costs by working with firms that already have a consumer base (SHEARER, 2000). But as the recent court case involving Calvin Klein and Warnaco (a licensee) demonstrates, this strategy may not be viable in the long term, as acquisition and licensing may result in the dilution or distortion a company’s brand or image or in the loss of control over production and quality (CONTI, 2000; KAUFMAN, 2001).¹¹ Accordingly, the ability of the Garment District to overcome these tendencies and to renew itself continually will depend on other strategic approaches. The evolutionary economic theory reviewed earlier suggests that continued success at innovation depends on the Garment District’s ability to accommodate variety. It is an openness to variety that ensures the continual flow of new ideas and new sets of practices. This openness can best be illustrated by an examination of the ways in which Garment District designers draw on a distinct and yet parallel community of design studios and boutiques which has emerged in the last several years on the Lower East Side of Manhattan – a community which is said to contain the most creative and edgy products currently being produced in New York City.

THE ORGANIZATION OF THE LOWER EAST SIDE DESIGN COMMUNITY

The Lower East Side has become attractive to many young, independent and predominantly foreign-born designers (from France, Italy and the UK, among others) for several reasons relating to the degrees of freedom offered by this alternative cluster. One reason is the availability of affordable studio space in the Lower East Side. Rising real estate costs in midtown Manhattan and the retail district in Soho have made those areas inaccessible to most independent designers. Another reason is that many young designers do not

want to 'work their way up' the established Garment District system. On her decision to locate in the Lower East Side, one designer explained:

I didn't want to have to go through the traditional route – first, graduating from FIT, then working for an established designer ... making all the right contacts on Seventh Avenue, with *WWD* and the retailers, and then becoming a head designer myself before I could open up my own shop. I wanted to avoid the middleman and go directly into designing and retailing from the start (personal interview, 2000).

Compared to the high barriers to entry into the District, the openness of the Lower East Side, with its unique mix of social and art-related communities and its affordable rents, makes it a more accessible option for independent designers, particularly foreigners. Its appeal corresponds to FLORIDA's, 2000, finding that places which are open to newcomers and diversity are more likely to attract and retain talent. Indeed, even designers formerly employed in well-paying, established Garment District firms, such as Tommy Hilfiger or Natori Lingerie, are drawn to the free-spirited culture of the Lower East Side community where they can be more 'creative and experimental' (personal interviews, 2000). As documented in the accounts of MCRobbie, 1998, and CREWE *et al.*, 2001, this creative identity – marked by a certain level of self-fulfilment and personal satisfaction in one's work – is what motivates cultural workers to trade the relative security of the corporate world for the independence afforded by an 'alternative' work space.

The distinct attributes which characterize the Lower East Side design community also have implications for the organization of production and distribution. In contrast to their *ready-to-wear* oriented counterparts to the north, fashion design studios in the Lower East Side tend to be smaller, though vertically integrated, operations in which the designers sew, assemble and sell the products in-house. Many of the design studios/boutiques in the area have parts of their shops sectioned off in the back for production. In cases where the designers do not have in-house assembly, they generally contract these services out to firms in the adjacent Chinatown district or to contractors based in the Garment District (see Fig. 5). My survey of 50 Garment District manufacturers found that roughly half of the manufacturers source more than 30% of their contracting work in Manhattan; on the Lower East side, all nine designers interviewed said they sourced at least 90% of contracting work in Manhattan (personal interviews, 1999, 2000).

A large number of the Lower East Side designers also operate downstream along the supply chain by selling their products in their own boutiques. This integration into retailing confers several advantages upon designers. The first is that these designers do not have to deal with the demands of department stores or

larger speciality chains with respect to delivery times or cost and design specifications. The second is that they can display their products in whatever manner they choose; the boutique essentially serves as the designer's 'showroom' and they have complete control over the design, look and feel of the setting (personal interview with a designer and boutique owner, 1999). The third – and most important – is that the designers receive instant feedback from the final consumer, allowing for more market-sensitive designs as well as shortened product cycles. This feedback can be quantitative, in the form of actual sales, but it can also be qualitative, in the form of suggestions or comments made by the customer concerning their preferences for particular design features. According to one designer: 'If I make one new product and I make one colour, I can put it in the window and see what response I get ... someone might say "oh, you don't have this in any other colour?" and I might say "what colors would you like it in?" and then I get an idea how to proceed' (personal interview, 2000).

Designers who do not own their own boutiques will often work with local boutique shops or with a limited number of speciality shops. In these cases, however, the nature of relations between the buyer and supplier is much more balanced than is the case in the Garment District. This is due in large part to the fact that the designers have some leverage with retailers since they can offer unique products to a limited number of shops – what boutique owners term 'exclusivity' (personal interviews with three boutique owners, 1999, 2000). Consequently, due to the more balanced relation between the buyers and suppliers, the design innovation flows in the Lower East Side can be depicted as shown in Fig. 7.

Other local institutions that contribute to the innovation process in this system include textile suppliers, the underground magazines, alternative fashion shows, local competitors and other local creative industries. Like Garment District designers, the Lower East Side designers are also constrained by the availability of affordable, quality fabrics. Many designers purchase their fabrics from local jobbers as opposed to the

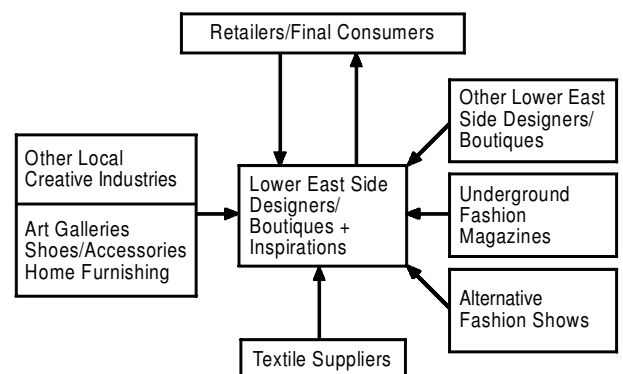


Fig. 7. Lower East Side design innovation flows

traditional mills, because the jobbers provide unique 'vintage' fabrics and are willing to sell them in small quantities (personal interviews 2000).¹²

Underground magazines, such as *Big* and *V*, are increasingly prominent in the industry as a means to obtain information on emerging trends and as a venue for independent designers to market themselves. Their significance to this design community is evident in the fact that all fashion boutiques in the area now sell them (personal interviews with three boutique owners, 1999, 2000). 'Alternative' fashion shows have also entered the fashion scene in recent years, largely in response to the centralized show, '7th on 6th' established by the Council of Fashion Designers of America (CFDA) in 1993. While the '7th on 6th' show hosts the established fashion houses in the Garment District, the alternative, non-for-profit shows – such as 'South of 7th' and 'Orchard Street Style Slam' – showcase young, emerging designers and stylists (personal interviews with the organizers of three non-profit fashion shows, 1999).

A final element which enriches the Lower East Side design process is the larger community of competing design studios, fashion boutiques, art galleries, shoes and accessory shops, home furnishing stores, cafes and nightclubs within which the designers operate. By locating in the Lower East Side, the fashion designers not only attract other designers and artists to the area, but also draw on the synergies of the design-intensive milieu they have helped to create (CREWE and FORSTER, 1993; SCOTT, 1996; LESLIE, 1997; personal interviews, 1999). According to one boutique owner on Orchard Street: 'I learn about the latest styles by going out at night, to night-clubs, bars and parties in the area ... by meeting people, seeing people on the street. I used to subscribe to magazines to get a sense of the US market, but now I just examine what's going on in the street' (personal interview, 1999). The social dimension underlying this learning process was also highlighted by other designers and boutique owners, many of whom spoke about the 'friendly, neighbourhood feel' of the Lower East Side, contrasting it with the stifling and corporate atmosphere of the Garment District (personal interviews, 1999, 2000). Indeed, the embeddedness of this community closely mirrors the accounts of 'cultural products' industries provided by SCOTT, 1996; CREWE, 1996; CREWE and BEAVERSTOCK, 1998; and others.

INTEGRATING A NEW DESIGN SPACE INTO THE GARMENT DISTRICT INNOVATION SYSTEM

The vertical integration and co-ordination in the Lower East Side – an interesting contrast to the vertical *disintegration* often extolled as a basis for innovation and flexibility (see STORPER and CHRISTOPHERSON, 1987; SCOTT, 1988) – has allowed for quick-turnover in designs and greater experimentation, making it a

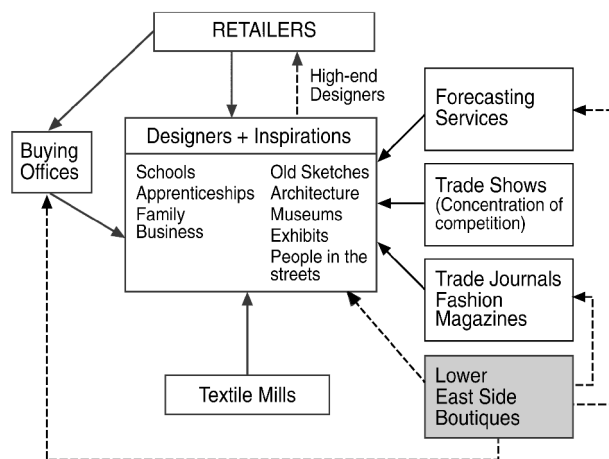


Fig. 8. Garment Design District innovation flows (2)

rich source of design inspiration. In fact, many of the Garment District designers interviewed acknowledged the role of the Lower East Side as a proximate site from which they could benefit (personal interviews with designers, 1999, 2000). The means by which the Garment District designers draw inspiration from this nearby alternative complex is varied but can be illustrated by representing the Lower East Side community as a 'sub-system' of the Garment District innovation system as shown in Fig. 8.

The most common way that Garment District manufacturers draw inspiration from Lower East Side designers is by 'shopping' their stores – i.e. actually seeing the merchandise that they display. Several of the Garment District manufacturers reported that they try to visit the Lower East Side stores fairly regularly to see which styles are being promoted, and that they would use some of the styles for their own collections but adapt specific design elements to suit their production capabilities (personal interviews, 1999). As one designer put it, 'we may borrow their general style, but we would need to alter the fabric selection and change the cut so that it would suit the tastes of our clientele and could still be sold at affordable prices' (personal interview with garment district designer, 1999). This appropriation of ideas was also confirmed by several Lower East Side designers who said that Garment District manufacturers would often visit their stores. According to one such designer: 'We have a lot of people who come in here and buy something to copy. I know one major Garment District manufacturer who comes in and buys whatever he likes. I know this for a fact. I've seen his work. We've got his credit card receipts with all the stuff on there and he copies them' (personal interview, 2000). This process of 'knocking-off' styles itself is deemed accepted practice in the industry and has been going on for generations (AGINS, 1994), but the use of the Lower East Side and its uncommercialized design talent as a 'source' is a relatively new phenomenon.

The Garment District manufacturers also draw inspiration from this design reservoir in indirect ways via fashion magazines, forecasting services and buying offices. The underground magazines, which have emerged in the US in the last few years, often feature designers from the Lower East Side; four boutique owners and six of the eight designers interviewed told me that they were provided free advertisement space (personal interviews, 1999, 2000). In contrast to the mainstream fashion magazines, these alternative magazines have limited circulation, and their value for Garment District manufacturers is that they provide coverage of designs that have not yet been publicized to a mass market. More recently, even establishment fashion magazines such as *Harper's Bazaar* and *Elle* are following the underground's lead and providing coverage to emerging design talent in an effort to differentiate themselves in the advertising market (SOCHA, 2000).

The forecasting services and buying offices in the Garment District often obtain market and trend information by consulting Lower East Side boutiques (personal interviews, 1999, 2000). In their suggestions to retail buyers, they not only incorporate the styles promoted in these stores, but also document the styles which are sported by the customers who frequent the area. Part of the Lower East Side's appeal is its avant-garde image – an image that derives not solely from its fashion boutiques but also from the wider social character of the neighbourhood reinforced by its artistic shops, cafes/bars, and trendy clientele. According to the director of one forecasting service, 'the people who shop in these areas serve as a barometer of upcoming fashion trends' (personal interview, 2000).

Thus, in both direct and indirect ways, the Lower East Side community benefits the Garment District by providing designers with market-sensitive designs and critical information on consumer preferences. Furthermore, by virtue of its lower barriers to entry and openness to talented newcomers, the Lower East Side serves as an important conduit for creativity and new design ideas – in short, the introduction of greater variety into the New York City garment designing system. In these ways, the Lower East Side community helps to refresh the innovative dynamics within the District. However, the nature of relations between the two systems is not one-sided. Lower East Side firms also benefit from many elements of the established Garment District innovation system. They draw on the District's network of contractors, specialized services and suppliers, and its design schools as a source for skilled labour (assistant designers, patternmakers, merchandisers). In many cases, they depend on these existing institutions for their continued survival. Thus, while relations between the two systems are rival, since they undertake similar activities albeit through varied means, they are also complementary, as each reinforces the dynamism of the other.

CONCLUSION

The case of the Garment District innovation system, and its Lower East Side 'sub-system,' illustrates one of the means by which an industrial cluster is able to renew itself and to balance 'the economic' with 'the cultural'. On the one hand, it shows how the existing structures in the District shape the norms and routines of firms, making it easier for them to perform their core functions. The shared understandings and expectations engendered by these structures underpin the District's organizational stability and economic coherence. It also shows how the potential rigidity of the infrastructure, which in this case tends to be dominated by large retailers, is tempered by a 'soft assembly' or 'openness' to variety, and highlights the significant role played by intermediary services in encouraging this openness. In so doing, this case challenges conventional analyses of localized agglomerations that tend to emphasize the role of spatial proximity in encouraging the development of coherence and consensus. By looking at how the Garment District can reinvent itself through the integration of a distinct organizational form, the analysis here draws attention to the ways in which spatial proximity, through the medium of a local innovation system, can also confer advantages to District firms by accommodating variety and promoting engagement with *rival* ways of organizing similar activities, thereby unsettling the systemic features which could lead to 'lock-in' (GRABHER and STARK, 1997; GRABHER, 2001).¹³ The source of variety in this case is a competing system on the Lower East side which, in contrast to the corporate, mass-market orientation of the District, is comprised of a local community of independent designers and boutiques specializing in exclusive and innovative products – in essence, the prototypical organization for a cultural products industry (cf. SCOTT, 1996; CREWE 1996; CREWE and BEAVERSTOCK, 1998).

By underscoring the dual role of the innovation system as a source for both structure and novelty, the case of the Garment District also offers insights into potential policy directives. Whereas past policy prescriptions relating to clusters and networks have emphasized the significance of cooperation (e.g. SAXENIAN, 1994; ROSENFELD, 1996; AMIN, 1999) and have suggested the need for 'brokers' or other stimuli for firms to engage in closer, more frequent interaction and co-operation, a recognition of the significance of divergent views and competencies for sustaining innovation suggests alternative, though not incompatible, policies. One such policy would be the provision of local market information services (or 'real' services), such as the forecasting services, buying offices and trade journals (BRUSCO, 1992). Since the costs of generating variety through experimentation in-house are high and the capacity to undertake these activities limited, intermediary services could socialize the costs for individual firms.

Operating at the interface of buyer–supplier–consumer relations or at the boundaries of competing networks, these organizations could serve as the reflexive, institutional ‘monitors’ for a system by ‘providing the external gaze ... to foresee opportunities and secure rapid response’ (AMIN, 1999, p. 372). And while these shared services would appear to reinforce common responses to market signals (and promote common designs), this does not necessarily translate to conformity in the marketplace. As ANTONELLI, 1999, has noted in his examination of knowledge-intensive specialized services, these organizations expose firms to different ideas for particular applications without transferring to the firm capabilities from which the ideas were first generated. Consequently, the firms may integrate this information – e.g. ‘orange is the color for the season’ – into their own knowledge-sets and resource capabilities, such that the end-product is still firm-specific and unique, yet in line with general market trends.

In the case of the New York City apparel industry, many of these intermediary services have emerged on their own in response to the growing demands of a large and concentrated apparel market. BRUSCO, 1992, contends however that most clusters cannot generate the demand necessary to enable the market provision of such services, since their transmission of ideas to cluster firms often constitutes a public good. This would suggest that local governments could play an important role in subsidizing or developing these services, based on the *system-wide* – rather than *individual* – needs of a cluster.

On a more general level, this case also underscores the need to maintain or even enhance the system’s openness. While the Garment District is open to divergent ideas and sets of practices, most of this ‘variety’ is channelled into the system from the outside. The barriers to entry into the District for new talent remain high, particularly as rents have tripled in the last several years and as the city has failed to enforce the zoning law protecting manufacturers from competing land uses (NYIRN, 2001). These trends inhibit the entry of new designers and their ability to develop relations with system gatekeepers, i.e. existing distribution and marketing channels. Moreover, as these trends are increasingly visible in the Lower East Side as well, the barriers to entry threaten both direct and indirect sources for openness and creativity, and demand that local government give serious consideration to current zoning legislation and to the application of rent control or rent subsidies for apparel manufacturers/designers. Public funding to support and promote recognition of newcomers, through venues such as the alternative shows, is another means of easing the access to entry for new talent. At the current juncture, interventions such as these are imperative for ensuring the continual exposure to ‘variety’ which is needed to sustain innovative dynamism of the larger Garment District design and production system.

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NOTES

1. This retail market structure stands in stark contrast to that of apparel manufacturing, where the top 11 publicly-traded companies account for 22% of domestic spending and the next 21 companies add a mere 6.1% to the market share (*State of the Retail and Apparel Industry*, 2000).
2. A recent study by the NEW YORK INDUSTRIAL RETENTION NETWORK (NYIRN), 2001, shows that the government is not enforcing the District’s special zoning law except along the main avenues where the high-end designers are concentrated.
3. While there are many proponents of this approach, the field was first formally articulated by NELSON and WINTER, 1982.
4. The definition of a cluster is borrowed from PORTER, 1998; it represents a geographic concentration of interconnected companies and institutions in a particular field or sector.
5. This corresponds to Veblen’s view of an economy characterized by ‘punctured equilibrium’ as opposed to orthodox Darwinian gradualism (HODGSON, 1994).
6. My definition of ‘manufacturers’ is interpreted broadly to include those producers who have in-house design and marketing capability, even if they do not perform the production work in-house. In some places, the terms ‘designers’ and ‘manufacturers’ are used interchangeably.
7. A notable exception here is the work of MASKELL *et al.*, 1998.
8. Of the Garment District designers interviewed, 70% attended a local design school.
9. For a detailed elaboration on the nature of relations between Garment District firms and how those relations constitute the local innovation system for New York’s women’s wear industry, see RANTISI, 2002.
10. Department and discount store sales constitute almost 40% of total US apparel sales, and most of the major retailers (e.g. Federated and K-Mart) are publicly-held companies, under pressure from Wall Street to produce short-term profits (*State of the Retail and Apparel Industry*, 2000). These retailers are less willing to take risks by establishing accounts with new designers (D’INNOCENZIO, 1998).
11. Calvin Klein had sued Warnaco Group (a company that manufactures the designer’s jeans) to terminate Warnaco’s license on the ground that the manufacturer damaged Klein’s brand by producing substandard products and distributing Calvin Klein jeans to mass merchandisers and warehouse clubs. The two sides eventually settled out of court with Warnaco agreeing to limit the percentage of its sales to warehouse clubs in return for Calvin Klein ending all litigation to terminate the license (KAUFMAN, 2001).

12. A 'jobber' is a firm that acts as a middleman between the retailer and the manufacturer. Jobbers rarely produce merchandise in-house. More typically, they buy completed (or in the case of some textile jobbers, partially used) lots from manufacturers.
13. This study has focused on the benefits that can arise from engagement with a *rival system or sub-system*, but exposure to *rival firms* within the same system can confer similar benefits (see MASKELL, 2001; RANTISI, 2002).

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