



VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

Fashion as Viscous Knowledge: Fashion's Role in Shaping Transnational Garment Production

This is the Published version of the following publication

Weller, Sally Anne (2007) Fashion as Viscous Knowledge: Fashion's Role in Shaping Transnational Garment Production. *Journal of Economic Geography*, 7 (1). pp. 39-66. ISSN 1468-2702

The publisher's official version can be found at
<http://dx.doi.org/10.1093/jeg/lbl015>

Note that access to this version may require subscription.

Downloaded from VU Research Repository <https://vuir.vu.edu.au/3438/>

Citation: Weller, S. A. (2007). Fashion as viscous knowledge: fashion's role in shaping trans-national garment production. *Journal of Economic Geography*, 7(1):39.
66.<http://joeg.oxfordjournals.org/cgi/content/abstract/7/1/39>.

Fashion as Viscous Knowledge: Fashion's Role in Shaping Transnational Garment Production

*Sally Weller**

Abstract

This paper develops a perspective of fashion as a complex, multidimensional form of knowledge and as a technology of garment mass production. It identifies the various modalities of fashion knowledge and characterises their different rates and extents of transmission across space and time in terms of their relative complexity. The paper explores the spatio-temporal configurations of fashion knowledge as it is mobilised in the economy, interrogating the ways in which the uneven viscosity of its different modalities vary with their positioning in geographical space and in relation to other modalities. It then assesses the economic implications of fashion's place-specific re-combinations. These interactions are demonstrated by an examination of the impacts of international fashion trends on fashion garment supplies to the Australian market. The perspective outlined in this paper highlights the inadequacies of the tacit-codified binaries that have dominated geographies of knowledge and shows why the transmission of fashion ideas consolidates rather than diminishes the power of key sites of expert knowledge.

Key words: *knowledge, fashion industries, economic geography*

JEL Classifications: *O31, O34, R12, L67, F16*

1. Introduction

It is generally acknowledged that the transmission and translation of different forms of knowledge across space and time are increasingly important to capitalist production. Yet despite advances in the specification of processes leading to the diffusion of technical and scientific knowledges (Latour and Woolgar 1979), understandings of the diffusion or translation of less tangible forms of knowledge remain underdeveloped. Geographical perspectives have highlighted the need to

* School of Geography, Anthropology and Environmental Studies, The University of Melbourne, Parkville, Victoria 3010, Australia. *email* <saweller@unimelb.edu.au>

explore the complex and uneven geographies of knowledge and the relationships between knowledge, space and economy (Amin and Cohendet 2004, Bryson et al 2000, Coe and Bunnell 2003, Thrift 1985). Nonetheless, there remain substantial gaps in our understanding of the mobilisation of different modalities of knowledge—their diffusion, transmission or translation across space and time—and the impacts of these movements on economies, on regional development or on persistent underdevelopment.

In many geographical analyses, knowledge is a territorially specific resource. Its flows are typically conceived as unidirectional, where morsels of knowledge begin life as tacit, proximate and place-bound, and through a process of codification that facilitates their diffusion across space, become progressively more ubiquitous and therefore less economically valuable (Maskell and Malmberg 1999). The value of tacit knowledge is thus associated with its scarcity, an assumption that is open to question if knowledge is conceived as a self-regenerating resource. Nonetheless, the geographical 'stickiness' of (valuable) tacit knowledge has been recognised as one of the primary forces in the creation of economies of agglomeration, where location-specific specialization flourishes as firms harness knowledge-based externalities generated in the local milieu. Regardless of whether these agglomerative forces are described in terms of clusters, networks, spatial innovation systems or knowledge communities, the fixity of (tacit) 'ways of doing' knowledge is central, and contrasts sharply with the more rapid diffusion of codified information of the sort described by Castells (1996) as flowing through 'spaceless' technology-based connectivities. Yet, as Hudson (1999) notes, although these theorisations explicitly address the spatialities of knowledge, they have barely moved beyond a simple mapping of the tacit-codified binary over local-global spatialities. This paper challenges these understandings to explore the inter-relationships between different modalities of knowledge, their unstable expressions, their opposing or complementary spatialities and the power relations they embody and express. This task is

advanced through an examination of a particular type of spatialised knowledge: the knowledge of fashion trends. The paper is interested in fashion as economically useful knowledge. To that end, it explores the spatio-temporal patterns of the transmission of fashion knowledge into the high-volume mass production system and assesses the implications for regional and industrial development.

Initially, this paper's interest in fashion was motivated by the simple observation that in the hundreds of articles that have been written about the global garment industries—their production networks, commodity chains, labour practices, trade relations and export processing zones—there has been limited interest in understanding the role of fashion in the formation and durability of national and transnational garment production industries and systems at the extra-local scale. The meaningful and knowledge-rich nature of fashionable objects and the importance of securing control of design-based intellectual property has barely been acknowledged or analysed in relation to the globalisation of garment production industries, the spatial configurations of internationalised firms, or the relationships within and between production networks. Where is fashion in the 'big picture' of global clothing production? Why has research into the globalising spatial configurations of the clothing industry so studiously avoided tackling the impacts of fashion on the industry's organisation? Certainly labour process-oriented studies have long stressed the separation of centralised head office design, marketing and consumer research functions from production, but these accounts stress the management and labour productivity advantages of these arrangements rather than the prior issue of how fashion knowledge is exploited by capitalist firms.

To link the worlds of fashion design with the global garment production system, this paper traces the transmission, diffusion and translation of high-profile designer fashion knowledges into the mass production system and into consumer perceptions. It envisages the simultaneous action of multiple modalities of contemporary fashion knowledge, which travel at varying rates across

space to distant places (socially, geographically or temporally). During this process, ideas are subject to multiple forms of rearticulation with varying degrees of metamorphosis. In some instances, they are replicated (as in counterfeiting), sometimes they are transmitted in a diluted form in multiple mass market imitations, and sometimes they are reworked, with the addition of local sensibilities, in a hybridizing process of translation. Each of these re-expressions is shaped by institutional arrangements, by the judgements of retailers, manufacturers and consumers, and by the uneven extent to which the powers of the state in different jurisdictions provide protection for proprietary fashion knowledge. The paper's understanding of the role of fashion knowledge in mass production is informed by spatialised theorisations of knowledge and power (Allen 2000, 2003) and framed by the theme of positionality, or a recognition that theoretical perspectives are inevitably shaped by the location of the observer (Sheppard 2002).

The paper's central argument is that fashion is a multi-dimensional form of knowledge that adopts a variety of interdependent expressions, or modalities, each of which is shaped by context-specific and relationally constituted powers. Since these knowledges flow across space and time at different rates, and with varying degrees of mutation, the nature of the specific recombinations in different places and times is always uncertain. Fashion is nonetheless crucially important to the world's garment industries, because it is instrumental in the formation of consumer preferences and at the same time leads the ever-changing character of the design-based inputs to the world's garment manufacturing structures. As Storper (2000:56) argues, economically oriented geographies of knowledge need to address the role of knowledge in the space- and time-sensitive interactions between consumption norms and production norms.

The perspective developed in this paper stimulates a theoretical reappraisal of the role of knowledge in production. First, I show that as a complex and internationalised system of knowledge, fashion shapes the spatio-temporal rhythms of the international garment production

system. Second, and in contrast to the 'knowledge communities' literature, I stress that the transmission of fashion knowledges does not rely solely on institutional links; rather, it depends on the fortuitous intersection of multiple and variably mobile dimensions, only some of which are embedded in organisations. Third, I demonstrate that the spatialities of these different forms of knowledge cannot be understood using a binary tacit-codified classification. Instead I adopt a descriptive framework in which modes of fashion knowledge are characterised by their viscosity, an abstract quality that reflects their relative complexity. Fourth, the focus on the variable recombinations of fashion's modalities in different places shows that knowledge diffusion is not a process of ubiquitification, but rather one of variable replication, proliferation and embellishment referenced to recognised core ideas. This in large part reflects the capacities of knowledge to expand, mutate or dilute with use, rather than being 'used up' in the manner of material inputs. It follows that as fashion knowledge traverses national, cultural and social boundaries its mobility reinforces rather than diminishes the power of the world's central sites of fashion knowledge creation.

The discussion proceeds as follows. Section 2 critically examines contemporary geographies of knowledge before exploring the character and unstable expressions of different forms of fashion knowledge. Section 3 then draws on the Australian garment industry's insertion in the global production system to examine the how the various modalities and distinctive temporalities of fashion knowledge interact across space and time. Section 4 works through the implications of these observations for industrial organisation and regional development. The paper concludes with some general observations on the relationships between knowledge, power and space in the production system.

2. Fashion as Knowledge

Fashion knowledge is commonly understood as an aesthetic knowledge, and as an unstable and constantly changing form of knowledge that promotes incessant change without progress (Brydon and Niesson 1998). Fashion ideas are imagined as permeating multiple 'culturally' oriented commodities, creating complex co-dependencies between otherwise disparate production sectors (Leslie and Reimer 1999, Hughes 2000). As a result, commodities with quite different material systems of provision often share common aesthetic sensitivities, which in turn are linked to their common 'cultural' antecedents.¹ From this viewpoint, fashion moods adopt magical qualities that defy generalisation (Wilson 1987). At the same time, since fashion is understood as embedded in places where complex, socially constructed and largely tacit (cultural) knowledges accumulate, it is increasingly associated with cosmopolitanism and urban regeneration.

As with other forms of expert knowledge, fashion knowledge gravitates to central places—especially Paris, Milan, New York and London—which act as 'switching centres' for the transmission of ideas harvested from a wide range of sources (Lash and Urry 1994, Zukin 1991). In these key locations, fashion designers work across time and space to create new ideas—or fashion innovations—by recycling ideas from earlier eras, by collecting ideas from avant-garde urban groups, or by borrowing them from ethnic communities (see also Gilbert 2000). Here, processes of innovation rely on the percolation of ideas (and tacit understandings of their worth) within localised knowledge communities of fashion *cognescenti*. They rarely involve invention, in the strict sense of 'original' creation. Fundamental to this understanding is the idea that fashion knowledge is territorially specific; learning processes take place via 'tacit' knowledge transfers that

¹ The notion of 'systems of provision' is drawn from Fine and Leopold (1993:5) and describes the relationships between material and cultural practices in the production, circulation and consumption of commodities.

are promoted by proximity, or by 'being there' (Gertler 2002), in places that create a localised 'buzz' of innovative thinking (Rantisi 2002, Storper and Venables 2004). 'Knowledge communities' emerge and prosper as local labour markets attract knowledgeable individuals and as their interactions promote the sorts of tacit understandings that encourage innovation (Angel 1989, Benner 2003, Henry and Pinch 2000). When knowledge is expanded by building channels of communication beyond the local milieu (as in Bathelt *et al* 2004), the power of its 'tacitness' is preserved through interpersonal interactions between networked actors within institutionally bounded networks (Dicken and Malmberg 2001, Humphrey and Schmitz 2002, Hughes 2000). Thus, knowledge is embedded in place- or institution-based social networks. However, within this paradigm the spatial scale of enquiry—a locality, region or nation, or (alternatively) a workplace, firm or network of firms—tends to frame the boundaries of included social interactions and therefore the spatial and scalar definitions of knowledge communities. There is also a problem with understanding how networks are shaped by structural forces or how structures might emerge from networks (Dicken *et al* 2001).

Opposing the emphasis on proximate and tacit knowledge, Castells's (1996) 'spaces of flows' stresses the ways in which the expansion of telecommunications technologies has accelerated knowledge transfers, with the effect of flattening geographical difference. Here, as knowledge is increasingly difficult to constrain within institutional boundaries, it becomes a homogenising force promoting a ubiquitifying form of globalisation characterised by accelerating interactions (see also Maskell 1999). In contrast to the transmission of tacit knowledge through social interaction, in this 'codified' form knowledge flows impersonally and non-specifically, through media such as the Internet. Its potent influence on ideas and behaviours in distant places is exemplified by processes of 'fast policy transfer' where firms and governments emulate the latest business and policy fashions (Peck 2002, ten Bos 2000).

These views theorise knowledge through the lens of a tacit-codified binary in which ‘tacit’ knowledge reinforces local synergies and ‘codified’ knowledge roams the globe more or less frictionlessly. Following this line of thought, studies have defined ‘cultural’ industries in terms of their place-specificity and the associated agglomerative impacts of localised ‘tacit’ knowledge (for example, Maskell and Malmberg 1999). Beginning with an undifferentiated view of knowledge that applies to multiple expressions and modalities, their logic looks something like this:

1. Knowledge is described as either ‘tacit’ or ‘codified’;
2. Tacit knowledge is sticky in places; it promotes innovation;
3. Codified knowledge diffuses easily; it promotes ubiquity and global homogeneity;
4. Tacit knowledge becomes (or is made?) more codified as (if?) it moves; and
5. Knowledge is devalued as it moves from tacit to codified forms.
6. Therefore, places rich in ‘tacit’ knowledge prosper.

However, fashion fads—where heightened consumer demand for particular objects spreads contagiously in some places and not others—cannot be comprehended in this framework. In the case of fashion trends, knowledge moves quickly across space, sometimes diffusing with minimal transformation but at other times generating unpredictable hybridisations and revaluations (see Gladwell 2000). The contagious spread of a fad has no tacit-codified dimension and cannot be mapped onto a local-global spatiality. This suggests a more complex interaction between ‘local’ preferences and ‘global’ flows than the tacit-codified binary allows. Moreover, the variable penetration of fashion fads cannot be fully explained as a reflection of local ‘cultural’ sensibilities that promote or inhibit the transmission or mutation of ideas.² Still, the penetration of fashion ideas

² Although in institutional contexts organisational culture appears to play a significant role in firms’ capacity to hear and respond to the latest ‘best practice’ fashions (Amin and Cohendet 2000, ten Bos 2000, Bryson

is economically important because of fashion's seductive power to shape consumer preferences. It follows that to understand the role of fashion in the organisation of the world's clothing industries demands a nuanced appreciation of different modalities of fashion knowledge and the varied conditions under which that knowledge is deployed.

Rather than locating fashion as an expression of place-related cultural predispositions, this paper develops a conceptualisation in which the penetration of fashion fads reflects a relational interaction between different forms or modalities of fashion knowledge. Viewing fashion as a form of knowledge with multiple modalities reflects the influence of John Allen's (2003) interrogations of the spatial geographies of knowledge and power. Further, and in contrast to the usual definitions of fashion, I conceive of fashion ideas as complex, multi-dimensional forms of knowledge that operate as a technology of production in the world's garment manufacturing system. This broad view of technology follows Webber, Sheppard and Rigby (1992) and includes product and process innovation, organisational restructuring and changes in the technical division of labour.

Boisot (1998:5) posits that different types of knowledge have characteristic viscosity or fluidity: some knowledges are 'sticky' in places, while others are fluid and move rapidly across space. Viscosity is not a function of 'tacitness' but of complexity, defined as the juxtaposition of a number of interacting elements that give rise to a range of possible interpretations. Complex knowledges are viscous and slow to diffuse, while less complex or more abstracted knowledges are fluid and spread contagiously. Applying this understanding to the uneven mobility of fashion's multiple expressions, we can think of different modalities of knowledge as 'flowing' across space and time at different rates depending on their complexity. In this exposition, I extend Boisot's ideas by recognising that knowledge-in-motion may mutate or hybridise unpredictably as it encounters

2000), the spatial diffusion of fashion fads is more complex and variable within places, perhaps because ideas are not evaluated in the same ways.

related modalities, and by assuming that fluidity is also a function of the particular medium of transmission.

This relational conceptualisation makes it possible to begin to tease out the dimensions of fashion's multiple modalities and begin to interrogate the manner in which they interact with one another in specific contexts. Five modalities of fashion knowledge can be readily identified:

- First, we can think of fashion in terms of localised dress practices, or local 'ways of dressing' that are so steeped in local culture that they exist partly in the realm of precognition. These 'ways of doing' knowledges change slowly with changing social norms (see Hollander 1993); they are complex, viscous and 'sticky' in places.
- Second, fashion is a form of cultural capital captured by privileged style elites. Here a largely unspoken but nonetheless deliberate knowledge circulates in dense socially competitive urban environments. This 'placed' informal knowledge is also a critical knowledge, since dress preferences are subject to the harsh judgements of social peers. Here, aesthetic considerations are complexly entangled with issues of social inclusion or exclusion (Bourdieu 1984). We can think of this type of knowledge as fluid within its privileged social contexts, but as resisting motion beyond social groups. As social groups generate distinctive stylistic trends, they create subcultures framed by their style (see Hebdige 1979). This expert mode of fashion knowledge is sticky in places, but it resists formal institutionalisation; it can be accessed, harnessed or manipulated but not fully controlled by firms. This knowledge is spatially and aesthetically viscous as well as being complexly linked to social status.
- Third, we can recognise institutionalised fashion in the form of knowledge possessed—or the "knowledge assets" of firms (Boisot 1998). The economic value of this proprietary fashion knowledge is created by states through their regulation of intellectual property rights, and is

bounded by firms' brand identities. In the public domain, this form of knowledge is purposefully 'de-placed' or universalised to maximise its penetration of geographical space while at the same time preserving the boundaries of its niche in aesthetic space. It is not uncommon for the aesthetic motifs of a brand to develop in interaction with the fashion sensibilities of a particular social group (eg surfwear brands). In other words, this knowledge is managed, and aspires to spatial fluidity within an aesthetically viscous fashion-space.

- Fourth, fashion knowledge exists in a 'spaceless' and accessible form as knowledge transmitted through the (global) mass media. The representations in fashion magazines and the electronic media are not necessarily less complex than the fashions embedded in other media (such as in garments), but their selective juxtapositions alter the meanings of the ideas they represent (Barthes 1983, Hatchuel and Weil 1995). As a result, the seductive power of spatially fluid media images relies on their relational interaction with informed readers (Barthes 1983). Here, fashion is 'dis-placed', but while its images are highly fluid, their knowledge content varies depending on its interactions with other fashion modalities.
- Fifth, fashion knowledge exists as the semiotic content of material objects, embedded in the design qualities of the garments sold in the world's segmented clothing markets. The economic value of this captured fashion knowledge rests in its capacity to elicit emotional responses that stimulate consumption. The seductive power of fashionable objects depends on their relationship to variously informed audiences—in other words, on their interactions with other knowledges.

For fashion to be economically profitable in the capitalist market system, these different modalities of knowledge must intersect at the critical moment of purchase in a retail store. Firms operating in fashion markets make profits only when the price consumers are willing to pay for a garment

(based on a fashion-influenced subjective use value) is greater than the price of its design, production, marketing and other inputs (an indication of the abstract quantity, labour value). In Marxian terms, the profit (surplus value) realised at the moment of exchange reflects the difference between production costs and market price. Profits can be increased by reducing production costs—usually by locational strategies that manipulate factor prices—or by raising the value consumers place on fashion garments.

From a knowledge perspective, the moment of retail sale can be conceived as the moment when multiple modalities of fashion knowledge meet. A garment's appearance materialises the semiotic fashion qualities that have been embedded in it through the application of skilled design technologies. These combine with status attributes embedded through branding or the application of proprietary fashion knowledge to stimulate interest among consumers, whose preferences exist at the intersection of local ways of dressing, the recommendations and practices of social peers and interpretations of the fashion knowledge gleaned from the media, all tempered by the range of choices available given financial constraints. Once deliberate fashion knowledge 'gets into' garments, it operates in the production system to generate profits from the shifting landscape of consumer valuations.³

The generation of profits relies, therefore, on the relationships between different modalities of knowledge. Fashion firms can profit from this uneven and constantly shifting topography only under the condition that consumer fashion preferences change in the same direction and at the same rate as the changing fashion content of garments. The moment of exchange fixes this interaction in a specific spatio-temporal frame. Since the incorporation of fashion knowledge transforms a garment's perceived value in relation to time (the fashion cycle) and space

³ See Haug (1986) for an extended discussion of the nature of fashion's embeddedness in commodities.

(differences in fashion preferences between places), it is not possible to understand the fashion industries without unpacking these interactions.

Thus, understanding the power of fashion knowledge in the garment production industries requires thinking about how its different modalities intersect in specific places at specific times and how firms' strategies for the capture, management and deployment of fashion knowledge influence the nature and effects of those intersections. Understanding the role of fashion knowledge in the economy also requires untangling its dynamically changing nature and seasonal rhythms. In other words, it demands tracing the multiple avenues through which fashion knowledge flows across space and time, recognising their different rates of diffusion, permeabilities, and susceptibilities to mutation or hybridisation, and understanding how they combine in different contexts to create a fashion mood. For fashion to act as a technology of production requires coordination of its multiple modes, at least to the extent that consumer desires match the semiotic content of the garments sold in the high street. This suggests that the key issue for firms in fashion-orientated industries is not to manufacture as quickly as possible or even 'just-in-time', but to coordinate the timing of the fashion incorporated into objects with the timing of changes in the consumer mood. This is a problem faced by all firms regardless of their private knowledge assets, and is therefore a problem that attracts cooperative behaviours. It is to this issue I now turn, drawing on the example of mass-produced fashion in Australia.

3. Mass Market Fashion in Australia

The research program reported in this section was based in Melbourne, Australia. It is a city with a vibrant fashion retailing sector and a small fashion design sub-sector, but is about as far away from the recognised world centres of fashion as it is possible to be. From Melbourne, Australia, the

knowledges deployed by the world's fashion mass manufacturing firms appear to be diffusing from an internationalised melting pot of knowledge complicated by complex interpenetrations of local and global influences.

The internationalisation of the Australian economy in the 1990s decimated the local textiles and factory-based garment production industries to such an extent that in recent times clothing production instigated in Australia has relied on a combination of local quick response production by low-paid home-based clothing outworkers, or sub-contracted production in Fiji in Australian-led production networks (Webber and Weller 2001, Weller 1999, 2000). However, locally-instigated production continues to decline, and imported garments now account for more than 70% of the market in value terms (and even more in volume terms). Most imported garments originate in China but reach Australia via trading companies in Hong Kong. In contrast to the situation in the protected markets of Europe and America, Australia's garment imports saturate fashion-oriented segments of clothing markets as well as less fashion-oriented segments. The relentless decline of local production indicates that locally-specific fashion preferences have failed to protect local mass market manufacturers, regardless of their investments in the technologies of 'quick response' manufacture (Productivity Commission 2003, Weller 2003).

Importing is organised by local retailers, wholesalers or specialist sourcing firms who purchase mainly from trading companies in Hong Kong. High value imports also reach Australia as the exports of well-known internationalised designer fashion firms (often originating in Eastern Europe or China). This research programme's aim was to understand these patterns, which seemed, on the face of it, to be at odds with accepted understandings of the close relation between fashion and place. The research sought to examine the role of fashion in shaping the provenance of garments reaching Australian markets and the influence of fashion ideas in shaping the changing market shares of these different systems of provision. The multi-national scope of the

research program enabled comparisons of fashion sensibilities in Hong Kong, Australia and Fiji, revealing a spatialised hierarchy of sophistication in knowledge of fashion trends and fashion aesthetics. This section describes how Australia's geographical position shapes the ways in which space and time influence flows of fashion knowledge, sketches the ways in which different types of fashion knowledge intersect in the Australian context, and assesses their impact on the mechanisms through which garments appear in the Australian market.

3.1 Spatio-Temporal Positioning

Fashions and fashion knowledges change with the seasons. Geographical position matters to understanding fashion knowledge because cities in the southern hemisphere, such as Melbourne Australia, experience their seasons in the reverse of those in the northern hemisphere. In Melbourne, in April, local fashion magazines promote the new season's winter fashion. But at the same time, a variety of readily available international magazines show the northern hemisphere's new spring fashions, which are six months 'ahead' of the local industry.⁴ Routinely, then, the fashion knowledges contained in high-profile designer garments that are consumed visually by Australian readers of fashion magazines (and that are shown in other globalised media) differ from the fashion knowledges embedded in the garments available in retail stores. When Australia's new season's spring designs appear in September, they are already familiar from earlier media depictions. Thus, fashion-conscious consumers in southern hemisphere locations live in a perpetual 'time-space disjuncture' created by the clash between the fixed seasonal differences of places and the 'spaceless' flows of media-based fashion images (see Appadurai 1990). This geographical difference is theoretically significant because it reverses the expected temporal order

⁴ Australian consumers have easy access to the current editions of Australian, European and United States' versions of leading magazines like *Vogue* and *Marie Claire*.

of knowledge transmission: in Australia, 'codified' fashion knowledges from afar precede the local 'tacit' buzz of fashion ideas that bubble up from the streets.

Of course, viewing fashion as locked into seasonal rhythms is an over-simplification. Although fashion's cycles are grounded in climatic seasons, they are increasingly disarticulated from nature. Within places, it is not uncommon for the dates of 'seasonal' fashion events to be rescheduled to better integrate with other lifestyle entertainments and to better satisfy the local economic objectives; for example, the 2006 Melbourne Fashion Festival was rescheduled to coordinate with the tourist influx of the Commonwealth Games. As in other places, the fashion events calendar showcases local fashion designers, raises the international profile of their work and publicises their city, a strategic intervention intended to enhance their respective articulations in international divisions of labour and space. What is important, for the purposes of this paper, is to understand how Melbourne's fashion seasons articulate with fashion seasons in other parts of the world.

There is an extensive body of literature—usually originating in the northern hemisphere—suggesting that fashion's seasonal timings are increasingly shaped by the needs of mass production. Bi-annual designer fashion shows set the fashion pace through their relationships to the fashion media's publication dates, major retailers' forward stock schedules and the competitive production strategies of trans-national garment firms (Agins 1999, Perna 1987). To enable the production system to operate, these activities calibrate the rhythms of fashion time to socially constructed schedules. To elaborate on this relationship, Figure 1 shows the fashion calendar for Spring/Summer 2002 for a group of leading United States firms. Here fashion events are repeated at fortnightly intervals, so that each of the key cities—New York, followed by London, Milan and Paris—views the same or a very similar set of new designs at about the same time.



Figure 1 The Spring/Summer 2002 Fashion Calendar of New York Designers
Source: www.style.com, accessed 20/11/01.

Each of these cities is internationally recognised as a fashion design centre, and each is located at similar northern hemisphere latitude, creating a common temporal location with respect to the seasons. In contrast to Agins (1999) and Rantisi (2002), both of whom perceive fashion from the United States and identify a shift in its global configuration toward New York, the view from Australia reveals a consolidation of 'world cities' of fashion on a latitude-specific trans-Atlantic axis. Looking on from afar, these cities' fashion pre-eminence appears not simply as an accident of geography, but as a function of their location. Clark and Thrift (2004) make a similar observation regarding the timing of activities in the finance sector, although in that instance the differentiation follows a longitudinal rather than latitudinal axis.

These locations are empowered by the influence of internationalised design firms, and as a result fashion seasons in Melbourne are perpetually six months *behind* the world standard, not six months ahead of it. Because the seasons arrive at different times in different parts of the world (and because some places have no true seasons), fashion's rhythmic knowledge flows systematically differentiate places by their geography. More generally, this suggests that the

rhythms of all the world's various overlapping international and national fashion systems are situated in both space and time in a specific relation to the rhythms of the dominant world sites. In contrast to other analyses, my aim is to develop the idea that the pre-eminence of fashion's global centres is not only generated by internal, territorially specific processes of agglomeration, but also by their location relative to the interactions between multiple modalities of knowledge.

3.2 Intersecting Fashion Knowledges

As internationalised media and global production networks become more prevalent, the different timings of fashion seasons become increasingly important to the relationships between different modalities of fashion. If we think of each as having a different viscosity, and therefore a different rate of transmission and intensity of local effect, then the combination of effects that create a generalised 'fashion' mood in specific places at specific times becomes an empirical question. Let us untangle these interactions one at a time, taking them in rough temporal order.

Local dress practices

An extensive international literature celebrates the connections between dress practices and place. For example, Craik (1994) argues that dress acts spatially to articulate a relation between the body and the cultural milieu, so that it becomes a technique of establishing place-identity. Similarly, for Breward (2003) dress preferences are grounded in memories, which have a strong link to place. Scott (2001:29) argues that the increasing influence of 'cultural industries' makes place and space considerably more, rather than less, important in structuring economic processes. But these views are only true when places have a collective memory from which a distinctive aesthetic can develop, as is the case in many parts of Europe.

However, the extent to which Australia has a distinctive local aesthetic is a controversial issue—contrast Maynard's (2001) defence of Australian fashion with Milner's (1991) contention that Australia is a cultural *tabula rasa* devoid of identifiably local cultural traditions. This is also a politically charged issue, given that the creation of a local dress (or film, or literary) culture is often advocated as a means of ensuring the survival of local industries in a globalising economy. The fact that overseas brands are able to successfully market their styles in Australia—without modification—suggests that Australia has only at best a weak locally distinctive dress culture. On the other hand, the fact that Australians appear to warm to particular brands suggests there is some local flavour to fashion preferences. However, firms operating in the international garment mass production sector view fashion as a global phenomenon in which local influences play only a minor role. In Hong Kong, for example, the Australian market is typically perceived as being situated at the seasonal endpoint of a largely undifferentiated 'Western' market.

It's a nonsense that people ... [have local preferences]. People wear the same stuff everywhere. Fashion trends are pretty similar ... we are not seeing a great divergence in what's successful here and what's successful in Singapore. Our top 10 is their top 10 ... we copy what they do.

Interview HK17

It might be reasonable to conclude that the fashion knowledge carried within local dress practices varies in intensity from place to place, depending on a range of historical contingencies, and that some places are more open to the influences of external fashion knowledges than others.

Fashion in the Media

Through the media, fashion ideas move rapidly from place to place. Since the fashion media's reporting of fashion innovations reaches multiple consumer groups across the world almost simultaneously, its impact is often described as intensifying trans-cultural fashion interactions and as promoting a consciousness of the world as a single place of fashion (Robertson 1992:6). In this view, the media acts destructively, annihilating trans-national spaces and local fashion differences.

But this outcome follows only when and if fashion knowledge travels intact across space, and only if its effects are the same for each audience. The homogenising global vision of spaceless flows of fashion knowledge is undermined by fashion's uneven penetration in places and social groups. Two issues are influential: first, the extent of diffusion of fashion ideas to audiences that do not purposefully seek fashion information (for example, by purchasing or reading magazines); and second, the extent to which the media influences the dress preferences of audiences it does reach.

In Melbourne, the local fashion media (through the syndicated links of its transnational owners) are saturated with information about events, garments and fashion celebrities from distant northern-hemisphere fashion centres. Here the media play a role in the intensification of 'aesthetic cosmopolitanism' amongst transnational elites (Urry 1995:167) as the images emanating from the central places of fashion influence the aesthetic sensibilities of the local fashion *cognoscenti*, who draw on media representations to expand their pre-existing knowledge. For the fashion-conscious local *cognoscenti*, media depictions are complex knowledges open to multiple transformative interpretations. But the fashion media's impact on less knowledgeable audiences is open to question. Although there is no doubt that the media and advertising influence the purchasing behaviour of 'ordinary' consumers, the media cannot 'sell' just any fashion idea. In 1996, the international spring fashion range was built around a colour known as Apple Green. It was rejected by Australian consumers—at great cost to local firms—reportedly because the shade did not flatter Australian skin tones (Ford, n.d). Whilst this outcome may suggest a geographical basis to local dress preferences (related to the quality of light), it can also be understood as a clash between local fashion knowledge and externally generated fashion trends; that is, as a discord between modalities of fashion knowledge.

The issue, therefore, is to understand how fashion in the media interacts with other modalities of fashion. As Kitchen (1998:xi) suggests, it is not possible to understand the media's

portrayal of a phenomenon like fashion without considering the ways in which its depictions are 'superimposed on the material world of objects in a complex, symbiotic and co-dependent relationship'. In a relational view focused on fashion's intersecting modalities, the power of media-based fashion must depend on its space- and time-specific engagement with other modalities.

Proprietary Fashion

Firms in the designer fashion industry compete in the marketplace on the basis of a signature aesthetic that is supported by intellectual property rights. Designers and design-oriented firms assert knowledge through leadership and participate in media events such as fashion shows that reinforce their standing through peer recognition and public acknowledgement (Bourdieu 1984). High profile designers from the central places of fashion—names like Chanel or Versace—are familiar to Australians through their media profiles and through the internationalised marketing of their designs. The institutionalisation of fashion knowledge within firms creates spaces in which designers are able to capture and privatise fashion knowledge in the form of brands and trademarks that are publicly identified with particular aesthetic values. As elite designers create a signature aesthetic, they seek to capture a monopoly over a defined aesthetic space.

From a knowledge perspective, we can think of the ideas contained in signature designs as qualitatively rich and emotionally ambiguous. In Boisot's (1999:5) terms, since the meanings they incorporate are difficult to 'read' their complexity renders them viscous, providing a 'natural' protection against imitation. In addition, a range of legal protections (including copyright, branding, trademarks, and design rights) have been developed to enclose fashion-based intellectual property. The extent of legal protection of knowledge varies from place to place, creating place-based differences in the fluidity of transmission of proprietary fashion ideas. However, since at the same time fashion's incessant borrowing and recycling of ideas discourages the privatisation of its aesthetic knowledge, legal protections do not stem the flow of ideas, but merely slow the rate of

their transmission back to the streets (see Lane-Rowley 1997). Design-based firms constantly struggle to prevent their aesthetic knowledge from leaking out to places where its economic value can be appropriated by imitators.

These systems of ownership have important implications for fashion in Australia. Given seasonal differences, Australia's local fashion design houses are able to draw on a range of influences—including media images of European and American fashion, the garments viewed at trade shows and their own observations of what people are wearing in the streets—to rework knowledge into locally-attuned reinterpretations. Through these transpositions and hybridisations, Australian design firms see themselves as being integrated into an increasingly interdependent global fashion system. However, at the same time, Australian firms' power in the global structure is undermined by their spatio-temporally displaced relationship to northern hemisphere-based fashion leaders. This raises questions about the authenticity of local design, which is often accused of being derivative of the earlier trans-Atlantic mood. The work of many local designers contains strong references to particular elite European styles (Owens 2001). For example, the work of local designer Carla Zampatti is influenced by the clean lines associated with Chanel.

The outcome of this knowledge relationship is that although Australian designers have a strong position in local high value markets, their work is rarely taken up for reproduction in the mass market. Rather, their most innovative reinterpretations are likely to find their way into the international style direction through incorporation as inputs to the next trans-Atlantic seasonal cycle. At the risk of over-stretching, a second-order effect of local designer fashions' separation from the worlds of mass production is the development of an aesthetically-oriented sub-industry with stronger links to other design and artistic specialities than to mass market garment manufacture. Overall, the relationship between local fashion designers in Australia and the

internationally-known designers of the core cities of fashion is conditioned by the southern hemisphere's spatio-temporal fashion disjuncture.

Fashion in Mass Market Garments

Ordinary consumers' purchasing options are limited to the range of styles that firms elect to offer for sale in the marketplace. The characteristics of the fashion knowledge found in the garments available in stores in Melbourne at any time reflect the processes through which fashion design knowledges are articulated into the global mass production system.

Since Australia's mass-produced fashions are predominantly imported, understanding their fashion origins requires a return to the northern hemisphere's sources of fashion knowledge with a view to identifying *which* ideas find their way into the mass market garments that are sold in Australia's retail stores. As Craik's (1994:i) observes, the relationship between elite and street fashions remains poorly understood, but this may be because the processes that connect the two sectors have not been analysed from a perspective attuned to the spatio-temporal conditioning of relationships between different modalities of knowledge.

In Europe, critical review of the new styles presented at fashion shows establishes a broad industry-wide consensus on the parameters of the next season's acceptable mass-production styles (Perna 1987).⁵ This process establishes the general fashion direction in the mass market as well as the new season's dominant colour schemes, fabrics, textures, shapes and dress lengths.⁶ Because the evaluation process is socially intensive, collective and focused, the fashion forecasts emanating from different sources are never too far apart. By accommodating multiple aesthetic and ideological sub-streams, this process creates seasonal ranges containing design themes

⁵ This description of European processes relies on secondary sources, especially Agins (1999), Braham (1996), Fine and Leopold (1993) and Perna (1987).

⁶ For the current purpose, I ignore product-based differences in the rate of fashion change.

targeting different mass market audiences. Because these mechanisms involve designers, retailers, critics and media commentators they legitimise mass-market trend expectations and therefore enable mass production to proceed as a set of variations on a shared theme.⁷

However, once new styles are shown in the public domain, the process of imitation begins as fashion-oriented firms across the world seek to emulate leading designers and free-ride on their knowledge. In these processes, the relationship between imitation and embellishment is complex:

What makes me happy is when I am imitated in a rather clever way, that is the right way ... but if someone copies the details, I feel robbed of my money and my inventive rights.

Designer Mario Bellini, cited in Lane-Rowley (1997).

In this context, it is easy to understand that designers with claims to proprietary fashion knowledge are more concerned about a 'good' copy than a 'bad' one, because the good copy has greater potential to penetrate 'their' market spaces.

Within this structure, internationalised designer firms are able to protect their proprietary fashion knowledge by filling the 'imitation space' with their own legally sanctioned imitations, offered either through licensing agreements or through the manufacture of their own 'diffusion' brands (Howard 1991, Crane 1999). In both cases, designer firms create affordable but aesthetically abridged mass market versions of their own (more marketable) designs. The strategy is competitive relative to external imitators because designer firms possess stocks of complex fashion knowledge, they control the intellectual property rights associated with that knowledge, they benefit in the market from the social processes that deliver public recognition of their

⁷ More adventurous and knowledge-rich firms may diverge from the agreed path (because accepting increased risk also increases the likelihood of windfall gains) but since successful deviations are quickly emulated and incorporated into the mainstream, aggregate production never strays too far from the dominant styling direction (Birnbaum 2000).

expertise, and they have early access to fashion trend information. Some designers create multiple versions of their own styles, each targeting a different price segment of the market, creating interconnected hierarchies that link aesthetic content, production values and input qualities.

Mass-market versions of designer garments succeed in the market because consumers' actual product choices are determined primarily by affordability (Campbell 1996). Ultimately, since the consumer gets what he or she is willing and able to pay for, this process actively reinforces associations between income and taste-based social stratification. In Australia, these multiple versions of designer labels appear in the marketplace in the imported ranges of the well-known brands that originate in the core cities of fashion—the same designs as are familiar to consumers from the images in fashion magazines. In this translation of fashion knowledge into the mass market, the private ownership of fashion knowledge aids its differentiation, increasing its fluidity so that it can be channelled and passed more easily through institutional relationships.

At the same time, the work of leading designers escapes quickly to the streets, where it is soon imitated by mass market retailers (such as *Top Shop*). Descriptions of this process—as it is played out in Europe—emphasise the speed at which external firms are able to manufacture derivatives or imitations of elite designs (Lane-Rowley 1997, Richardson 1996). Imitators require excellent market intelligence, given the short time in which they identify, rework and manufacture successful designs, as well as access quick response production technologies. In Australia, in contrast, mass market fashion also follows the lead of high-profile designers, but given seasonal differences, the time-based imperatives of this process evaporate. Australia's local mass market firms are not forced to develop fashion predictions or mechanisms to second-guess the market. Since in southern hemisphere locations European style directions are known in advance and can be validated against their actual market performances, there is little incentive to invest in design:

We don't design, we interpret. There is a difference. *Where do you interpret from?* Largely out of America ... our buyers travel to the US six times a year to look at the stores we use for inspiration. People like *The Gap* ... we buy samples, we talk about it, and we come up with what we think the future trend will be ... If everyone agrees, then the numbers are quite safe. *Do you go out on the street to look at what people are wearing?* No.

Interview AU04

Australian firms buying garments in Hong Kong are likely to be firms that follow on the coat-tails of the supply chains of overseas mass market brands, ordering garments similar to those that have already been proven successful in the northern hemisphere. In this context, fashion's business risks are confined to assessing the extent to which a proven overseas trend will strike a chord with Australian consumers. The outcome is that the business of mass market fashion is less risky and less time-dependent than in the northern hemisphere.

The seasonal time difference also creates spaces that can be filled with expert intermediaries and a range of businesses that trade in fashion knowledge. Information about overseas trends—about how many times a style was reordered and about which cities favoured which design or colour—is readily obtained from industry publications or Internet portals (such as *vogue.com* or *wsgn.com*). This knowledge can also be purchased from intermediaries in places such as Hong Kong. Hong Kong intermediaries combine fashion trend knowledge with technical and logistical expertise; they know which manufacturers have created particular styles for the European season. Given their detailed knowledge of European, Canadian, and American trends, Hong Kong traders tend to view the Australian market as an unadventurous derivative of international markets:

We know where they get their concepts because they travel to the [United] States a lot and they go around the world. But after they spend *so much time* looking for new things, they come back always with *the same thing*, the same basic designs.

Interview HK08

These uneven endowments of fashion knowledge shape the power relations in supply chains. When Australian buyers purchasing garments in Hong Kong are less knowledgeable about international fashion trends than their Hong Kong supplier (and given that their orders are comparatively small in international terms), they are not in a position to dominate interactions in the supply chain. Contrary to Gereffi's (1994) distinction between producer-led and buyer-led commodity chains, which anticipates that buyers close to retail markets will dominate garment commodity chains, Australian buyers are not leaders of their garment commodity chains. Rather, Australia's position in relation to global knowledge flows creates a subordinate relationship that in turn shapes patterns of commodity flows. Figure 2 summarises the flows of garments and fashion knowledge into Australian fashion markets. It highlights the different routes of media-based fashion ideas, which flow directly to Australia, and garment-based fashion ideas, which pass through Hong Kong intermediaries.

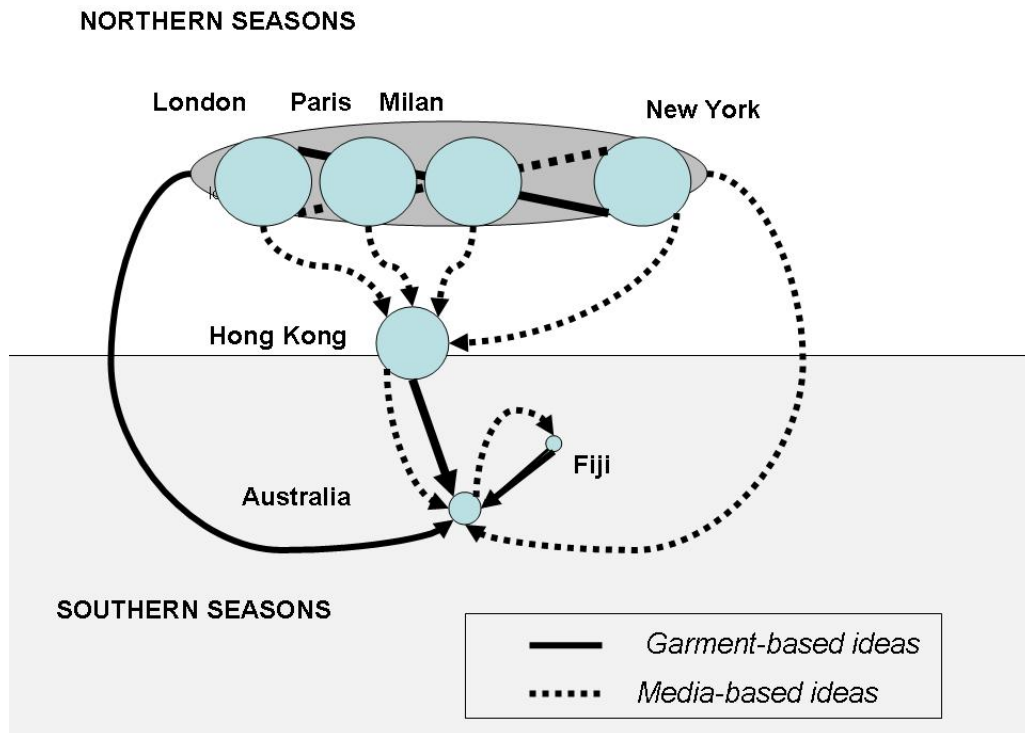


Figure 2 Australia's Location in Global Flows of Fashion Ideas and Commodities

3.3 The Segmentation of Fashion Markets

In Australia, the combination of spatio-temporal positioning, open market policies, and the ready availability of fashion expertise in Hong Kong has resulted in a clear separation of garment retailing, local garment design, and (overseas) garment mass production. When the patterns of garment trade flows of garments are comprehended in relation to fashion knowledge flows, Australian fashion markets can be understood as comprising four competing sectors:

- (1) International retailers exporting to Australia garments designed in the world cities of fashion and made in the locations of their transnational production systems. These mass market versions of mainly European and American designer styles are positioned in the upper price ranges of the local market and sold in department stores

and brand 'flagship' stores. Australia's seasonal differences reduce the innovation value of these garments, but they maintain their position through their global marketing and media profile.

- (2) Garments designed by local firms that draw on internationalised fashion knowledge to create new designs by reworking seasonal themes to Australian tastes. These garments are generally made by low-paid outworker labour and sold in specialist stores to loyal customers, but are seldom taken up by high volume mass market manufacturers. The consequence is that Australian fashion design operates relatively independently of mass marketing structures and imperatives.
- (3) Derivates of trans-Atlantic designer garments, as purchased from fashion traders in Hong Kong. Since Hong Kong provides effortless access to EU and US designs at a range of price/quality standards, Australian retailers are able to 'free ride' on European firms' Asian production networks. Since the European season is over by the time Australian firms place their orders in Hong Kong, this process does not create a competitive threat or a conflict of interest for Hong Kong trading companies. Still, designs are usually modified to avoid contravening intellectual property laws. Given the complexity of fashion proliferations, however, Australian firms' purchases may be derivatives of European designer originals, derivatives or interpretations of derivatives, depending on their sourcing structures.
- (4) Garments originally made for European markets imported to Australia for liquidation. In Europe, these garments are end-of-season items that have lost their fashion value with the changing fashion season. Their value is revived by relocating to Australia. The ready availability of bargain-price quality undermines Australia's higher value local markets.

In this complicated structure, there is no longer a clear correspondence between the aesthetic qualities of a garment, its production standards and its market price.⁸ However, it makes sense for local retailers and importers to position themselves in relation to the stylistic frameworks established by elite trans-Atlantic fashion because the media profile of elite fashion plays such an important role in shaping local consumer preferences (Inchley 1999). The upshot of this routine borrowing of ideas is that the clothes found in ordinary stores in ordinary streets in Australia are often similar, in aesthetic terms, to the elite garments shown in fashion magazines, despite originating from a variety of source and reaching the market through different avenues. These garment-based vehicles for the transmission of fashion knowledge are shown in Figure 3.



Figure 3 Local Versions of Designer Fashion

(Source: *New Woman*, November 2002)

⁸ However, because the data collected by the Australian Bureau of Statistics does not classify garments in terms of fashionability, it is not possible to estimate the relative sizes of these segments empirically.

As Figure 3 suggests, since the multiple local derivatives and interpretations continue to echo signature designer styles, leading overseas styles remain the linchpin of the mass production system. To conclude, the fashion content of mass market garments in Australia reflects their relational articulations to international fashion trends and their positions in the variable rates of flow of different modalities of fashion knowledge.

3.4. The Spatio-Temporal Hierarchies of Fashion

Generalising these knowledge flows results in a view of the global fashion industry as one that extends into the mass-market in two parallel flows: one of sanctioned but variously diluted versions of designer knowledge produced within the networks of internationalised brands, the other a replication of the same processes by 'external' firms. In the first flow, fashion knowledge moves swiftly in deliberate transformations that are tightly controlled within institutional frameworks, while in the second the reconstruction of knowledge draws chaotically on multiple re-workings of ideas from multiple sources. These flows are summarised in Figure 4.

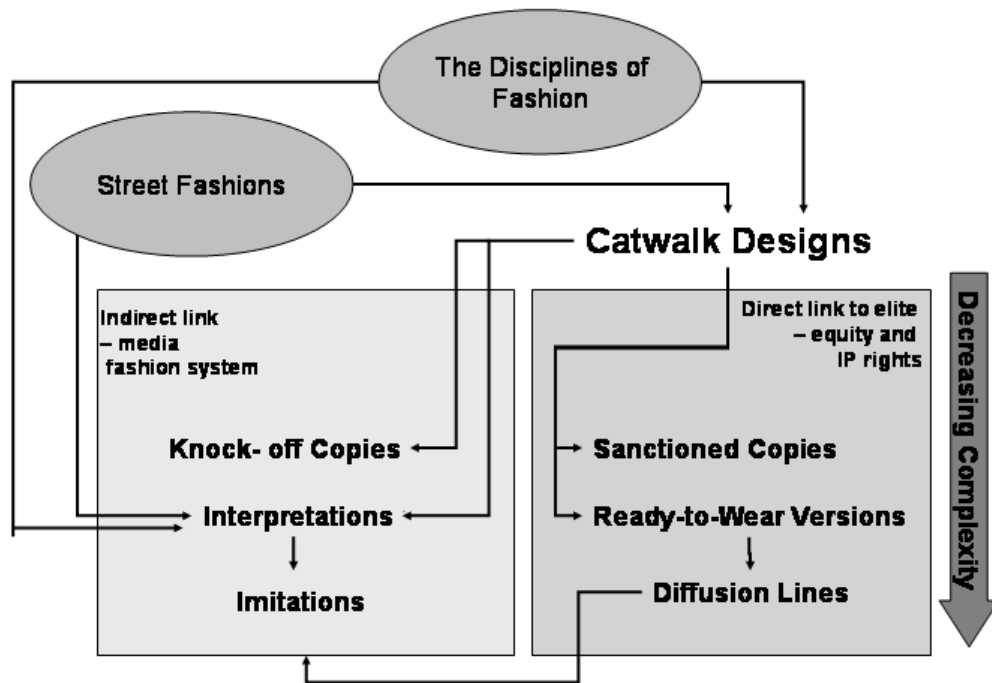


Figure 4 Reconstructing Design Knowledge

In this hierarchical formation, designer originals constitute core knowledge and function as the prototypes and inspirations for the proliferation of fashion ideas. Designer originals generate, within the intellectual property rights of their creators, sanctioned copies, ready-to-wear versions and less sophisticated derivative styles. Outside the elite system are direct copies or 'knock-offs', high quality interpretations and low grade imitations. This creates a hierarchy that reflects firms' positions relative to the ownership and control of the intellectual property contained in the styles they produce. At the upper end, firm strategies are directed to protecting knowledge assets, while at the lower end firms aim to capture value by exploiting higher end knowledge assets. Moving down the hierarchy, styles become less prestigious, less complex, less lavishly produced, less valued in the eyes of consumers and less expensive in the market.

These segmentations are shaped and graded by the aesthetic values incorporated into garments. Accordingly, the relationship between designer styles and the commodified styles in the mass production sector, as depicted in Figure 5, constitutes a hierarchy of authenticity stratified vertically by levels of stylistic abstraction and horizontally by demarcated aesthetic spaces. As patterns of replication and mutation are repeated for each of fashion's ideological themes, they create multiple differentiated strata, which relate to multiple differentiated consumer markets. Some derivative fashions are sophisticated interpretations that rework dominant themes in interesting and locally creative ways, while others are comparatively crass echoes of designer creations.

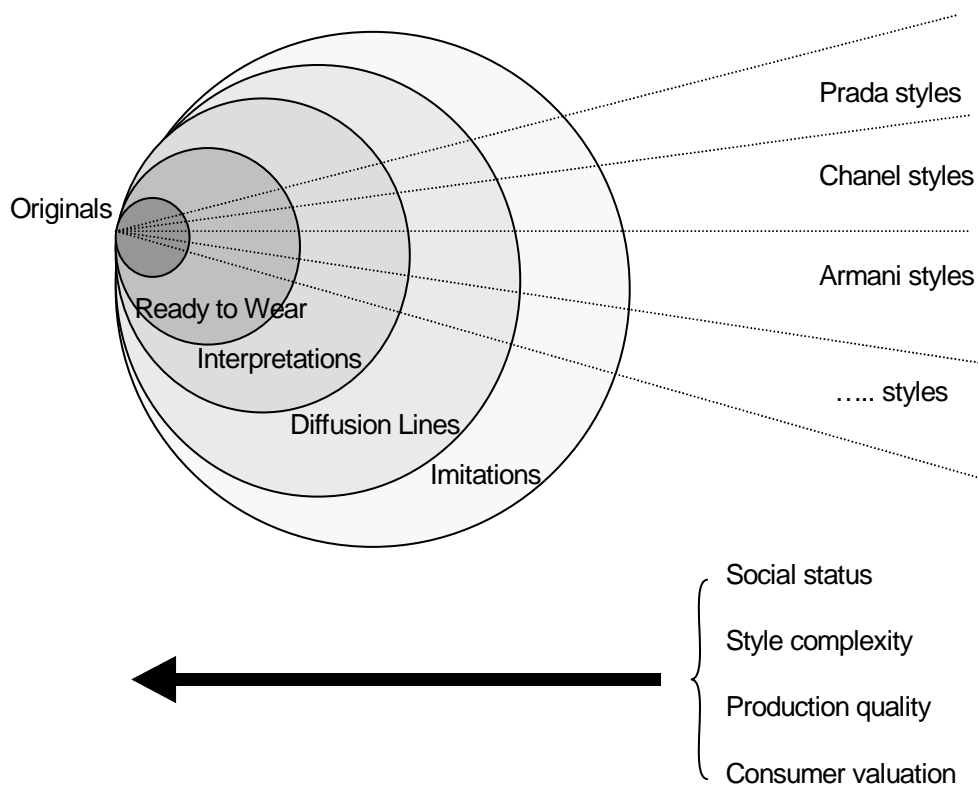


Figure 5 The Fashion Hierarchy

The structure of these processes ensures that elite fashion retains its stylistic authority. If all imitations, translations and interpretations are referenced back to an 'original' design, the flattery of imitation reinforces rather than diminishes the authority of the people and places that are recognised for their fashion expertise.

4. Fashion as Relational Knowledge

The understanding of fashion and production elaborated on in the previous section has considerable implications for understanding the deployment of economically useful knowledge in global patterns of garment-related industrial organisation, the power relations between firms and places, and therefore for patterns of urban and regional development. These effects hinge on the interplay between the rhythms of the fashion seasons and the spatio-temporal hierarchies of fashion knowledge they produce.

4.1 Beyond the Tacit-Codified Binary

Firms have uneven capacities to understand, interpret and use complex fashion knowledge and to convert it into innovations that will appeal to their localised constituencies. This creates a diverse range of stylistic hybridisations with varying degrees of originality; in other words, a highly differentiated fashion landscape segmented by the related effects of spatio-temporal position and aesthetic motifs. Internationally, as the spaces of fashion become crowded with proliferating and complexly interrelated styles, competition is most intense between firms that offer similar styles—that is, between firms that occupy a similar aesthetic space. When these similar styles are also offered at a similar price, firms will profit in the market when their particular version appeals to local consumers. In this competitive arena, firms that claim aesthetic and proprietary ownership over

complex fashion ideas have an advantage when they also understand how to position the fashion knowledge contained in garments in relation to other forms of fashion knowledge, especially consumers' fashion preferences.

If fashion involves continual recombinations of its multiple aspects, and if the fashion mood is the effect of the relational interactions between these different modalities, then it is not possible to conceive of knowledge as an entity or 'thing' that ubiquitifies as it diffuses, or as a phenomenon with 'tacit' and 'codified' dimensions (contra Maskell and Malmberg 1999). As the fashion mood changes, ideas regenerate through feedback systems and interactions that constantly reproduce fashion as 'new' knowledge. In addition, viewing the fashion mood in any place as the outcome of interactions between its modalities disrupts any possibility of thinking about fashion in terms of a local-global binary (as in Crewe and Lowe 1996). In this perspective, fashion is not embedded in place, but is the outcome of complex interactions at multiple scales. It is nevertheless perceived as territory-specific because places are where its modalities recombine with specific outcomes. It might be more useful to conceive of the five modalities of fashion identified in this paper as creating a complexly multi-scalar framework that mixes different types of hierarchies—place, social group, firm, and industry sub-sector. The power of fashion to influence the value of commodities is then the outcome of cross-sectoral synergies between different modalities. These are actively produced, for example, as firms create brands that weave a social and aesthetic identity and link the aesthetic values of garments to social groups and particular forms of media.

4.2 Implications for the Mass Production

This understanding of fashion has important implications for understanding global production. For businesses located in places that lead the fashion season, the uncertainty of consumer responses

to fashion ideas means that the market for fashionable commodities is intrinsically unpredictable. However, market risks can be mitigated when information from mass communications, firm marketing and word-of-mouth recommendations converge. Nonetheless, predictions about the next season's fashion trend are always speculative.

Therefore, in the northern hemisphere the nature of demand conditions creates particular difficulties for mass production firms, especially for textiles and garment manufacturers. To manufacture in large volumes, the upstream input supply industries must begin the processes leading to the manufacture of dyestuffs, fabrics and accessories long before the start of the garment manufacturing season (and long before the season's fashion mood 'on the streets' is known). High volume manufacturers working at the leading edge of fashion change must place orders for fabrics and dyes perhaps a year in advance of the actual production season (Birnbaum 2000). Garment manufacturers that require such large volumes of inputs cannot simply purchase 'off the shelf' as the need arises and cannot follow the fashion mood in a 'quick response' model of operation.⁹ Given their pre-season input requirements, fashion predictions are crucially important.

Conversely, quick response firms operating in local markets can only manufacture to the fashion mood when they have ready access to the 'right' fashion colours and fashion fabrics; in other words, when some other firm has taken the risk of deciding which colours and fabric designs to create. It follows that quick response mass market firms that operate close to the market in privileged urban contexts must broadly follow the fashion lead of larger firms (even if their products reach the shelves more quickly), while the large firms are working blind, following the fashion direction mandated by fashion experts. The only firms that are exempt from this reality are low volume boutique designers that have access to facilities for the manufacture of their own fabrics,

⁹ Quick response can be used only for stock replenishment and re-ordering of popular lines.

fabric designs and dyes. This relation explains the persistent bifurcation of the international garment manufacturing industry into a few large and many small firms.

In the southern hemisphere, on the other hand, all the inputs previously used in the northern hemisphere season can be readily purchased in the marketplace, often at end-of-season sale prices. The plethora of options reduces the need for local innovation, and alters the nature of competition compared to the northern locations. In effect, it means that many small firms can operate without the need for the fashion leadership of large firms in the local market.

4.3 Implications for Regional Development

The interconnections and disjunctures of fashion knowledge flows have implications for how we understand garment-led industrialisation, industrial upgrading, the manner in which global production networks 'touch down' in different places, and ultimately, the trajectories of regional development.

Recent interest in the role of knowledge in the regeneration of regional competitiveness has focused on the 'stickiness' of localised, tacit knowledge and its role in regional regeneration (Cooke 2002, Lundvall 1992, Malmberg and Maskell 2002). Studies of the transmission of knowledge within production networks has also relied on tacit, proximate and interpersonal exchanges, and the developmental potentials that follow from the transfer of technical knowledges within supply chains (Ernst and Kim 2002, Gereffi 1999, Humphrey and Schmitz 2002; see Power and Hallencreutz 2002, Smith 2002). Both concentrate on knowledge flows within and between firms. In contrast, this discussion has highlighted the interactions between different types of fashion knowledge, sometimes embedded in firms, sometimes in places and sometimes in social groups. The important economic effects of fashion are created at the intersections of these modalities, where they are materialised in risk management at the production-consumption interface, in the

positions of firms in production hierarchies and in the relative positioning of places in international frameworks of knowledge-based economic power.

The fashion example highlights the global importance of nodes in global knowledge flows. But it also shows that different modalities of knowledge gravitate to different central places, and that the locations of those places are related to geographical positioning relative to the temporal rhythms of the seasons. The processes fixed at these influential sites create a hierarchical time-space relation in which everywhere else in the world is subordinate—in both stylistic and temporal terms—to the Paris-Milan-London-New York fashion axis. The events and activities in these places also play a significant role in shaping both the temporal rhythms and the aesthetic direction of the world's mass market fashion industries. Hong Kong, on the other hand, is an important site in the mediation between the North and South and the East and West, and its location is well-suited to this role.

The question, then, for the sustainability of fashion-oriented industries in peripheral regions such as Australia, is whether forewarning of the fashion direction results in more advanced local fashion knowledge development, as information from the key centres is converted to new knowledge, or whether the flood of external ideas drowns out local initiative and impoverishes the local sector. From this perspective, the small size of Australia's high fashion sector and its continued vulnerability to imports can be attributed to its position on the periphery of the global fashion system. The ready availability of fashions from overseas suggests that creating an 'internationally competitive' garment sector in Australia, as was the objective of government policy in the 1990s, was simply impossible. Perhaps entrepreneurial cities in peripheral locations can promote their cosmopolitan credentials through fashion-led marketing, but without a major shift in global power relations, these places are unlikely to become 'world cities' of fashion.

Larner and Molloy's (forthcoming) study of the apparent success of the New Zealand fashion industry appears to contradict this conclusion. However, this paper's understanding of fashion enables a reinterpretation of Larner and Molloy's place-oriented view of the interplay between material symbolic and representational processes that directs attention to New Zealand's position in an internationalised economic and symbolic order.

Larner and Molloy note that the major global fashion brands are largely absent from the New Zealand fashion market. This reflects both New Zealand's small size and its distance from the centres of world fashion, consistent with the tendency for internationalizing clothing retailers to target geographically and culturally proximate markets (Moore et al 2000). When Larner and Molloy quote a local designer as commenting that Auckland is a centre for New Zealand fashion design because "All the magazines are here," they implicitly suggest that media-based flows of overseas fashion information are not as accessible to local consumers as in Australia. Importantly, too, Larner and Molloy show that the local markets for New Zealand-designed fashion are leveraged from its designers' gate-keeping role, through retailing, which enables them to control the import of garment-based designer fashion knowledge from abroad. Therefore, we can think of New Zealand's designers as having inserted themselves in market, trade and information flows to mediate the flow of fashion information, thereby providing them with a virtual monopoly over the translation of fashion ideas into designs attuned to local sentiments and aspirations. In turn, the accommodation of both local and international brands in the Auckland retail precinct is possible because only the less adventurous international brands generate sufficient sales to justify a New Zealand presence, so specialised local firms are free to fill the avant-garde edges of the market.

In addition, Larner and Molloy's analysis does not detail how the New Zealand designer fashion industry has benefited from its position in global trade flows and New Zealand's common market with Australia (under ANZCERTA, the Australian and New Zealand Closer Economic

Relations Trade Agreement). In this context, New Zealand's lower wages, lower fixed costs and more generous government support combine with lower duty rates on imported fabrics to provide New Zealand firms manufacturing in New Zealand with an advantage over Australian competitors operating in similar market segments (see Productivity Commission 2004, Weller 2000). New Zealand firms are able to exploit factor cost differences by importing fabric, making it up into garments and then exporting it as finished goods containing sufficient local value-added (much of it in highly valued design attributes) to enter Australia duty-free as "Made in New Zealand".¹⁰ From this perspective, New Zealand's designer fashion industry gravitates to Auckland not so much because of that city's cultural infrastructure or symbolic cachet, but because Auckland is the gateway city for the import of fabric and the export of garments. From this perspective, the New Zealand designer industry's local success is grounded in its geographical isolation and its capacity to filter, mediate and translate the sophisticated ambience of the (distant) metropolis, while its export success relies on a trade-based factor cost advantage that enables it to opportunistically insert itself in a regionalised trans-Tasman economy. From theory, we might hypothesise that the New Zealand designer industry's secure position in its domestic market anchors its success in the Australian market, and puts it in a strong position compared to Australian designer firms that must compete directly with global brands. These observations underscore the importance of thinking about fashion as component of transnational production where the movement and control of fashion knowledge is complexly interwoven with the economics of global, regional and local production systems.

¹⁰ In January 2007, the method of calculation used in Trans-Tasman Rules of Origin will move from 50% Regional Value Added (RVA) to a Change in Tariff Classification (CTC) criterion, consistent with international regulatory practice. This will advantage New Zealand women's fashion exports (Bord 2006).

5. Conclusion

The relationships between knowledge, power and space are increasingly important to economies in which commodities are easier to make than they are to sell (Galbraith 1958). Fashion commodities such as clothing are particularly vulnerable to devaluation as the consumer mood changes. Fashion is therefore a particularly useful case for exploring the economic uses of knowledge. Accordingly, this paper has developed an understanding of fashion as a form of knowledge that shapes the operation of the world's garment production system, where firms' capacities to capture or transform fashion knowledge to profitable ends rely on the timely coordination of its multiple expressions and their context-bound fluidities. The paper has shown that firms in the business of fashion must be sensitive to both the temporal and spatial dynamism of fashion ideas as well as to the shifting relationships between its various expressions. By using the metaphor of viscosity to understand the different rates of transmission and velocities of change associated with fashion's various expressions, the spread of fashion can be understood without resorting to tacit-codified or local-global binaries. The *power* of fashion knowledge over dress preferences and the fortunes of capitalist firms is then a relational effect of the interactions between its modalities (see Allen 2003).¹¹ In summary, focusing on specific types of knowledge, unpacking their modalities, and exploring their interconnections and influences opens exciting new avenues of economic-geographical inquiry.

Fashion knowledge operates as a potent but unexplored power over the trajectories and locations of the world's garment production system. The global fashion system creates hierarchies of knowledge and 'territories' of aesthetic influence that exert a massive influence over the structures and locations of production. The interactions between different modalities of fashion

¹¹ There is an echo here of Baudrillard's (1998:32) contention that consumer goods present themselves as a harnessing of power.

knowledge create an internationalised convergence in trend expectations within the sector's production firms, a synergy between consumer and firm expectations, and, through the media, the temporal coordination of consumer and firm expectations. This amounts to a sophisticated system of risk moderation that penetrates beyond the confines of production networks and commodity chains and beyond the subjective experiences of actors and their institutional embeddings. Within these processes, it is possible to discern an increasing awareness of the ways in which aesthetic values frame the details of the production process and firm specialisation. The next step is to begin to collect evidence of firms' specialisation within aesthetic spaces.

Acknowledgements

This is a revised version of a paper given at the 2005 RGS-IBG Annual Conference, London, 31st August – 2nd September 2005. Comments from conference participants, especially Mick Dunford, Dominic Power and Andy Pratt, are gratefully acknowledged. Peter Sheehan and Michael Webber provided invaluable feedback on earlier versions of the paper, as did Neil Wrigley and the anonymous referees of *JEG*. Responsibility for remaining errors remains my own.

References

- Allen, J. (2003). *Lost Geographies of Power*. London: Blackwell.
- Allen, J. (2000). Power/economic knowledge: symbolic and spatial forms. In J. Bryson, P. Daniels, N. Henry and J. Pollard (eds), *Knowledge, Space, Economy*. London, Routledge. 15–34.
- Agins, T. (1999). *The End of Fashion: How Marketing Changed the Clothing Business Forever*. New York: Harper Collins.
- Amin, A. and P. Cohendet (2004). *Architectures of Knowledge: Firms, Capabilities and Communities*. London: Oxford University Press.
- Angel, D. (1989). The labour market for engineers in the US semi-conductor industry. *Economic Geography*, 65(2): 99–112.
- Appadurai, A. (1990). Disjuncture and difference in the global cultural economy. *Theory, Culture and Society*, 7: 295–310.
- Barthes, R. (1983). *The Fashion System*. Translated by M. Ward and R. Howard. New York: Hill and Wang.
- Bathelt, H., A. Malmberg and P. Maskell (2004). Clusters and knowledge: Local buzz, global pipelines and the process of knowledge creation. *Progress in Human Geography*, 28(1): 31–51.
- Baudrillard, J. (1994). *Simulacra and Simulations*. Translated by S. Glaser. Ann Arbor: University of Michigan Press.

- Benner, C. (2003). Labour Flexibility and Regional Development: The Role of Labour Market Intermediaries. *Regional Studies*, 37(6): 621–33.
- Birnbaum, D. (2000). *Birnbaum's Global Guide to Winning the Great Garment War*. Hong Kong: Third Horizon Press.
- Boisot, M. H. (1998). *Knowledge Assets: Securing Competitive Advantage in the Knowledge Economy*. London: Oxford University Press.
- Bord, G. (2006). Trade deal stitches up New Zealand suitmakers, *New Zealand Herald*, Auckland: March 3rd, 2006.
- Bos, R. ten (2000). *Fashion and Utopia in Management Thinking*. Amsterdam: John Benjamins Publishing.
- Bourdieu, P. (1984). *Distinction: A Social Critique of Judgement and Taste*. Cambridge, MA.: Harvard University Press.
- Braham, P. (1996). Fashion: unpacking a cultural production. In P. du Gay (ed), *Production of Culture/Culture of Production*. London, Sage. 119–65.
- Breward, C. (1995). *The Culture of Fashion*. Manchester: Manchester University Press.
- Brydon, A. and S. Niesson (1998). *Consuming Fashion: Adorning the Transnational Body*. Oxford: Berg.
- Bryson, J. (2000). Spreading the message: management consultants and the shaping of economic geographies in space and time. In J. Bryson, P. Daniels, N. Henry and J. Pollard (eds), *Knowledge, Space, Economy*. London, Routledge. 157–75.
- Bryson, J., P. Daniels, N. Henry and J. Pollard (eds) (2000). *Knowledge, Space, Economy*. London: Routledge.
- Campbell, C. (1996). The meaning of objects and the meaning of actions. *Journal of Material Culture*, 1(1): 83–106.
- Castells, M. (1996). *The Information Age: Economy, Society and Culture*. Malden, Mass.: Blackwell.
- Cooke, P. (2002). *Knowledge Economies: Clusters, Learning and Cooperative Advantage*. London: Routledge.
- Clark, G. L. and N. Thrift (2004). The return of bureaucracy: managing dispersed knowledge in global finance. In K. Knorr-Cetina and A. Preda (eds), *The Sociology of Finance*. Oxford, Oxford University Press. 229–49.
- Coe, N. and T. Bunnell (2003). 'Spatializing' knowledge communities: towards a conceptualization of transnational innovation networks. *Global Networks*, 3(4): 437–56.
- Craik, J. (1994). *The Face of Fashion*. London: Routledge.
- Crane, D. (1999). Diffusion models and fashion: a re-assessment. *Annals, American Academy of Political and Social Sciences*, 566: 13–24.
- Crewe, L. and M. Lowe (1996). United colours? Globalisation and localisation in fashion retailing. In N. Wrigley and M. Lowe (eds), *Retailing, Consumption and Capital: Towards the New Retail Geography*. Harlow, Longman. 271–83.
- Dicken, P. and A. Malmberg (2001). Firms in territories: a relational perspective. *Economic Geography*, 77(4): 345–63.
- Dicken, P., P. Kelly, K. Olds and H. W. C. Yeung (2001). Chains and networks, territories and scales. *Global Networks*, 1(2): 89–112.
- Ernst, D. and L. Kim (2002). Global production networks, knowledge diffusion, and local capability formation. *Research Policy*, 31(8-9): 1417–29.
- Fine, B. and E. Leopold (1993). *The World of Consumption*. London: Routledge.
- Ford, S. (undated). Learning the Lesson of Lime. <http://www/tcoz.com>. (last accessed July 2003).

- Galbraith, J. K. (1958). *The Affluent Society*. London: Hamish Hamilton.
- Gereffi, G. (1999). International trade and industrial upgrading in the apparel commodity chain. *Journal of International Economics*, 48: 37–70.
- Gereffi, G. (1994). The organisation of buyer-driven global commodity chains: how US retailers shape overseas production networks. In G. Gereffi and M. Korzeniewicz (eds), *Commodity Chains and Global Capitalism*. Westport Conn., Greenwood Press. 95–123.
- Gertler, M. (2002). Tacit knowledge and the economic geography of context, or The undefinable tacitness of being (there). *Journal of Economic Geography*, 3(1): 75–99.
- Gilbert, D. (2000). Urban outfitting: The city and the spaces of fashion culture. In S. Bruzzi and P. C. Gibson (eds), *Fashion Cultures: Theories, Exploration and Analysis*. London, Routledge. 7–24.
- Gladwell, M. (2000). *The Tipping Point*. Boston: Little, Brown and Company.
- Hatchuel, A. and B. Weil (1995). *Experts in organisations: a knowledge-based perspective on organisational change*. Berlin: Walter de Gruyter.
- Haug, W. (1986). *Critique of Commodity Aesthetics: Appearance, Sexuality and Advertising in Capitalist Society*. London: Polity Press.
- Henry, S. and S. P. Pinch (2000). Spatialising knowledge: placing the knowledge community of Motor Sport Valley. *Geoforum*, 31: 191–208.
- Hollander, A. (1993). *Seeing Through Clothes*. Berkeley: University of California Press.
- Howard, R. (1991). The Designer Organisation: Italy's GFT Goes Global. *Harvard Business Review*, Sept/Oct: 28–36.
- Hudson, R. (1999). The learning economy, the learning firm and the learning region: a sympathetic critique of the limits of learning. *European Urban and Regional Studies*, 6(1): 60–72.
- Hughes, A. (2000). Retailers, knowledges and changing commodity networks: the case of the cut flower trade. *Geoforum*, 31: 175–90.
- Humphrey, J. and H. Schmitz (2002). How does insertion in global value chains affect upgrading in industrial clusters? *Regional Studies*, 36(9): 1017–27.
- Inchley, N. (1999). The label invasion, *The Sunday Age*, Melbourne: 9th May 99. Lift-out:16.
- Kitchen, R. M. (1998a). Towards geographies of cyberspace. *Progress in Human Geography*, 22(3): 385–406.
- Lane-Rowley, U. V. (1997). *Using Design Protection in the Fashion and Textile Industry*. Chichester: John Wiley and Sons.
- Larner, W. and M. Molloy (forthcoming). Globalisation, Cultural Economy and Not-so-Global Cities: The New Zealand Designer Fashion Industry. *Environment & Planning D: Social and Space*.
- Lash, S. and J. Urry (1994). *Economies of Signs and Spaces*. London: Sage.
- Latour, B. and S. Woolgar (1979). *Laboratory Life: The Social Construction of Scientific Facts*. Newbury Park: Sage.
- Leslie, D. and S. Reimer (2003). Fashioning furniture: restructuring the furniture commodity chain. *Area*, 35(4): 427–37.
- Lundvall, B.-A. (ed) (1992). *National Systems of Innovation*. London: Pinter.
- Malmberg, A. and P. Maskell (2002). The elusive concept of localization economies: toward a knowledge-based theory of spatial clustering. *Environment and Planning A*, 34: 429–49.
- Maskell, P. (1999). Globalisation and industrial competitiveness: the process and consequences of ubiquitification. In E. J. Malecki and P. Oinas (eds), *Making Connections: Technical Learning and Regional Economic Change*. Aldershot, Ashgate. 35–59.
- Maskell, P. and A. Malmberg (1999). The competitiveness of firms and regions: ubiquitification and the importance of localised learning. *European Urban & Regional Studies*, 6(1): 9–25.

- Maynard, M. (2001). *Out of Line: Australian Women and Style*. Sydney: University of New South Wales Press.
- Milner, A. (1991). *Contemporary Cultural Theory: An Introduction*. St. Leonards: Allen & Unwin.
- Moore, C. M., J. Fernie and S. Burt (2000). Brands without boundaries: the internationalisation of designer retailer's brands. *European Journal of Marketing*, 34(8): 919–37.
- Owens, S. (2001). Fashion chases the export dollar, *Australian Financial Review*, Canberra: 3rd January:16.
- Peck, J. (2002). Political Economies of Scale: Fast Policy, Interscalar Relations, and Neo-liberal workfare. *Economic Geography*, 78(3): 331–60.
- Productivity Commission (2004). Rules of Origin under the Australia–New Zealand Closer Economic Relations Trade Agreement: Supplement to Productivity Commission Research Report, Rules of Origin under the Australia–New Zealand Closer Economic Relations Trade Agreement, Canberra: Ausinfo.
- Perna, R. (1987). *Fashion Forecasting: A Mystery or a Method?* New York: Fairchild Publications.
- Rantisi, N. (2002). The competitive foundations of localised learning and innovation: the case of women's garment production in New York, *Economic Geography*, 78(4): 441–63.
- Richardson, J. (1996). Vertical Integration and Rapid Response in Fashion Apparel. *Organization Science*, 7(4): 400-12.
- Robertson, R. (1992). *Globalisation: Social Theory and Culture*. London: Sage.
- Power, D. and D. Hallencreutz (2002). Profiting from creativity? The music industry in Stockholm, Sweden and Kingston, Jamaica. *Environment and Planning A*, 34(10): 1833–54.
- Productivity Commission (2003). *Review of TCF Assistance*. Report Number 26, Canberra.
- Scott, A.J (2001). Capitalism, cities, and the production of symbolic forms. *Transactions of the Institute of British Geographers, New Series*, 26(1): 11–23.
- Sheppard, E. (2002). The spaces and times of globalization: place, scale, networks, and positionality. *Economic Geography*, 78(3): 307–31.
- Smith, A. (2003). Power relations, industrial clusters and regional transformations: Pan-European integration and outward processing in the Slovak clothing industry. *Economic Geography*, 79(1): 177–40.
- Storper, M. (2000). Globalisation and knowledge flows: An industrial geographer's perspective. In J. Dunning (ed), *Regions, Globalisation and the Knowledge-based Economy*. New York, Oxford University Press. 42–62.
- Storper, M. and A. Venables (2004). Buzz: face-to-face contact and the urban economy. *Journal of Economic Geography*, 4: 351–70.
- Thrift, N. (1985). Flies and Germs: A Geography of Knowledge. In D. Gregory and J. Urry (eds), *Social Relations and Spatial Structures*. London, Macmillan. 366–403.
- Urry, J. (1995). *Consuming Places*. London: Routledge.
- Webber, M., E. Sheppard and D. Rigby (1992). Forms of technical change. *Environment and Planning A*, 24: 1679–709.
- Webber, M. J. and S. A. Weller (2001). *Re-fashioning the Rag Trade: the Internationalisation of the TCF Industries in Australia*. Sydney: University of New South Wales Press.
- Weller, S.A. (2003). Fashion's Influence on garment mass production, unpublished Ph.D dissertation, Victoria University, Melbourne, Australia.
- Weller, S. A. (2000). International competitiveness and export performance: the case of clothing and textiles. *Journal of Australian Political Economy*, 46: 71–102.
- Weller, S. A. (1999). Clothing outwork: union strategy, labour regulation and labour market restructuring. *Journal of Industrial Relations*, 41(2): 203–27.

Wilson, E. (1987). *Adorned in Dreams: Fashion and Modernity*. London: Virago.
Zukin, S. (1991). *Landscapes of Power: From Detroit to Disneyworld*. Berkeley: University of California Press.