

# Infrastructure for Creativity and Innovation

Space, Site and the Built Environment

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## Project origins, purpose, methods

Inquiry into processes (and outcomes) of urban redevelopment: 'regeneration and dislocation' in the postindustrial terrains of the metropolis, following the collapse of traditional manufacturing and allied industries and labour, c. 1960s-1990s

Initiated in San Francisco's South of Market Area (SOMA) in 1993 (taking in industrial decline, "cultural makeover" of SOMA, rise and fall of the dot.coms); and in London's inner city and Vancouver; inclusion of Singapore in 1999; other reference cases in (e.g.) Toronto, New York, Seattle, Florence, Milan, Venice, Hanoi

Methods include (1) theoretical interrogation (post-industrialism and post-Fordism); (2) intensive field studies (interviews, mapping, photography); (3) documentary analysis

# Current Research Program

## ISRN Theme II project with Trevor Barnes

- program of interviews with video game producers and architects
- program for 2009: film production, computer graphics design and imaging, key institutions and agencies

## Transformation of Canadian City-Regions (OUP)

- co-edited volume w/ Larry Bourne, Richard Shearmur and Jim Simmons

## New Economic Spaces in Asian Cities (Routledge)

- co-edited volume with Peter Daniels and K C Ho

## Cities and Economic Change (Sage)

- co-edited volume with Ronan Paddison

# Project Outputs: Space, Built Form and Creativity

2000. 'Reconstructed Production Landscapes in the Postmodern City',  
*Urban Geography* **21**: 285-317

2006. 'Spatiality, Built Form and Creative Industry Development in the Inner City', *Environment and Planning A* **38**: 1819-1841

2008. *The New Economy of the Inner City*. London and New York: Routledge

2009. 'Trajectories of the New Economy: Regeneration and Dislocation in the Inner City', special theme issue of *Urban Studies* **46**: Issues 5 & 6

Trevor Barnes and Tom Hutton. 2009. 'Situating the New Economy: Contingencies of Regeneration and Dislocation in Vancouver's Inner City', *Urban Studies* 1249-1271



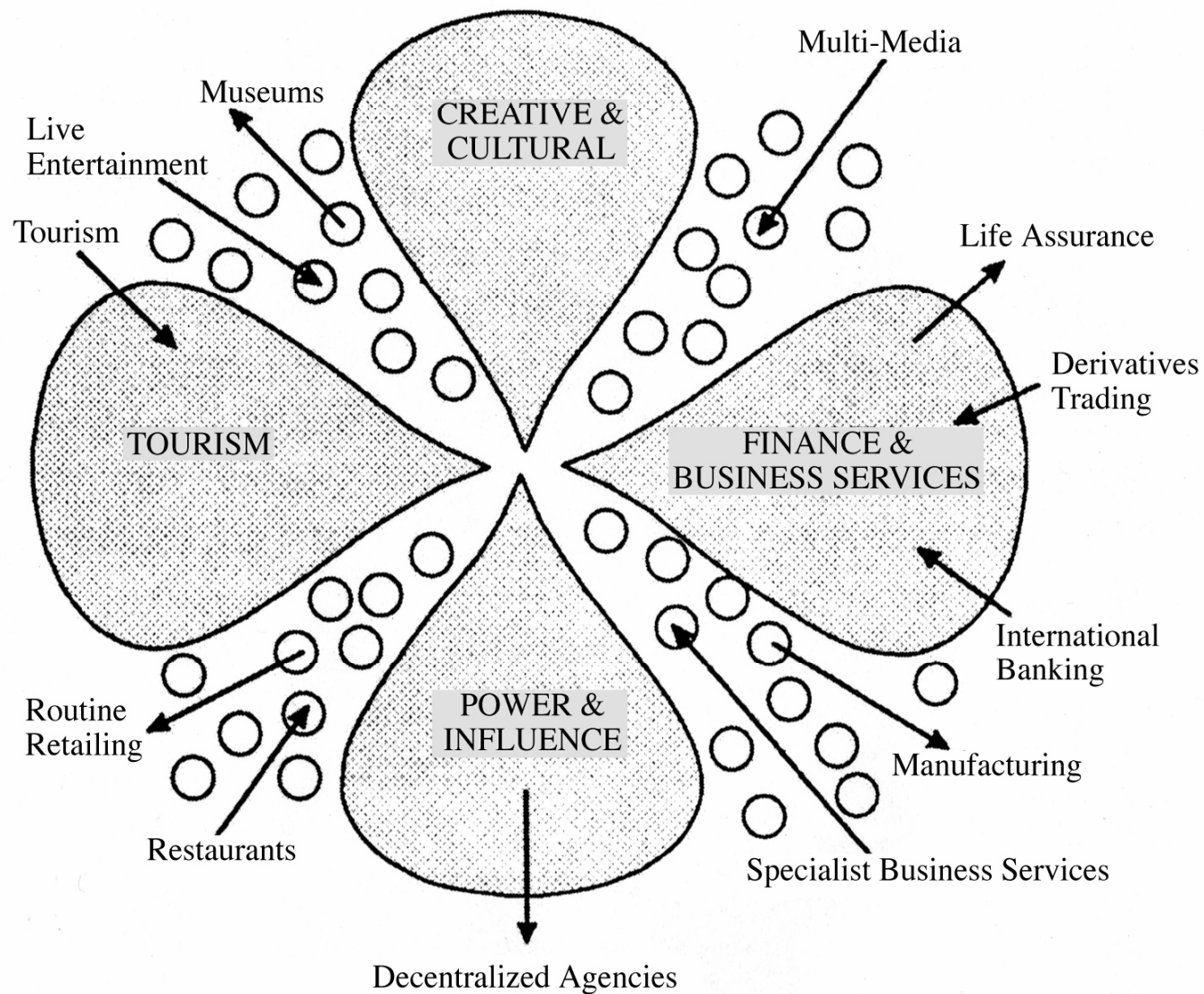
# Space, Site and Built Form and the Urban Economy

## *Space and Spatiality*

Expressions of industrial innovation and development in the metropolis characterized both by *continuities* and *disjuncture*: mix of different production regimes, changing relations between production, consumption and housing markets within metropolitan space

Hypothesis of accelerated change of economic activity since the collapse of Fordism and rise of flexible industries, goods and services; emergent zones of creativity and innovation in the city-region

*Multiscalar* dimensions of interaction and interdependency between space, innovation and industrialization



**Major service clusters in the polycentric global city.**

Source: Hall (2006)

# Multiscalar Economic Space in the Metropolis

Macro-scale elements: *zonal structure of the space-economy (lineaments and patterns: polycentric structure of the metropolis)*

Meso-scale elements: principal centrepieces of the metropolitan economy: *CBD corporate office complex, industrial districts, 'gateway' installations, science parks, universities*

Micro-scale elements: district, community and site scale; include *cultural quarters; creative industry precincts; artist colonies; retail, consumption and amenity districts*

# Landscape and Site in Creativity and Innovation

*Saliency of site: landscapes of creativity and innovation in the metropolis*

‘Regional dimension’ of creativity and innovation: role of major industrial districts and technopoles (Silicon Valley, Orange County, Emilia-Romagna)

Suburban centres of innovation and design: e.g. Mexx design centre on route to Schipohl in Amsterdam

‘Durable features’ as well as storylines of locational change  
Industrial Light and Magic: (1) originally in Van Nuys, CA, not far from Hollywood; (2) relocated to San Rafael in Marin County; (3) now in Letterman Digital Arts Center in the Presidio, San Francisco : close to skilled labour, business, arts, culture and knowledge economy of SF

# Landscape and Site in Creativity and Innovation

Interdependencies of sites, space and landscape in industrial innovation and development: Soja's acknowledgement of the 'industry-shaping power of spatiality' (*Postmetropolis* 2000: 166), as well as power of industry to shape space

'Space' in this context entails acknowledgement of 'texture' or fabric of urban landscapes: 'the look and feel of an urban landscape can play a role in knowledge production processes' Ilse Helbrecht: 2003: 9

Aesthetics of urban space, landscapes and sites deployed as inputs to creative processes in the cultural economy (Molotch 1996; Scott 1997; Indergaard 2004; Landry 2006)

# Creativity, Innovation and the Built Environment

## *Buildings, innovation, production and social relations*

“The design of the built environment is an important element of the productive forces of society, not just a reflection of them”

*Paul Knox, 'The Social production of the Built Environment',  
Progress in Human Geography 11 (1987):356*

“There is no other class of object which through the production of material forms purposefully organises space, and people in space”

*Thomas Markus, Buildings and Power: Freedom and Control in  
the Origin of Modern Building Types (Routledge 1993: 27)*

# Creativity, Innovation and the Built Environment

## *Evolution of Buildings for Industrial Activity*

Buildings as 'shells' for organising segmented labour for basic production and routine task in early industrial era: semi-penal control and discipline, deprivation

Buildings for production in the late-industrial period: organized for Taylorian labour in the Fordist era; specialised tasks, high salaries, security and benefits of unionisation

Buildings for the office economy in the modernist era: more engineered space for segmented service workforce of executives, managers, sales, clerical, and technical staff

# Creativity, Innovation and the Built Environment

## *Built Form : the Knowledge-based Cultural Economy*

Buildings as adjustable/adaptable “machines” for creativity, innovation and advanced production

Introduction of enhancing features: technology, amenity, mix of private and common spaces, for:

- *collaboration and cooperation: social organization of space for interaction, exchange, stimulus*
- *creativity: enhanced aesthetics of interior space for encouraging artistic expression, design*
- *innovation: ‘purposeful space’ for innovation, extracting higher value-added output, new forms of production*



# Creativity, Innovation and the Built Environment

## *Markus's typology of buildings*

Value of building types associated with both representational/  
semiotic and concrete/physical attributes

Markus's building typology ("Origins of Modern Building  
Types") links historical purpose with modern  
adaptation and innovation

### *Earliest examples: pre-industrial*

"Formation": buildings for schools and higher education

"Reformation": buildings for incarceration, to house "the  
sad, the mad, and the bad"

"Recreation": the 18<sup>th</sup> century coffee house as social  
institution and space of dialogue and interaction

# Creativity, Innovation and the Built Environment

*18<sup>th</sup>-19<sup>th</sup> century building innovations: –*

## Buildings and knowledge

“Visible knowledge”: libraries, museums, galleries

“Ephemeral knowledge”: dioramas and exhibition space

“Invisible knowledge”: universities, institutions, learned societies

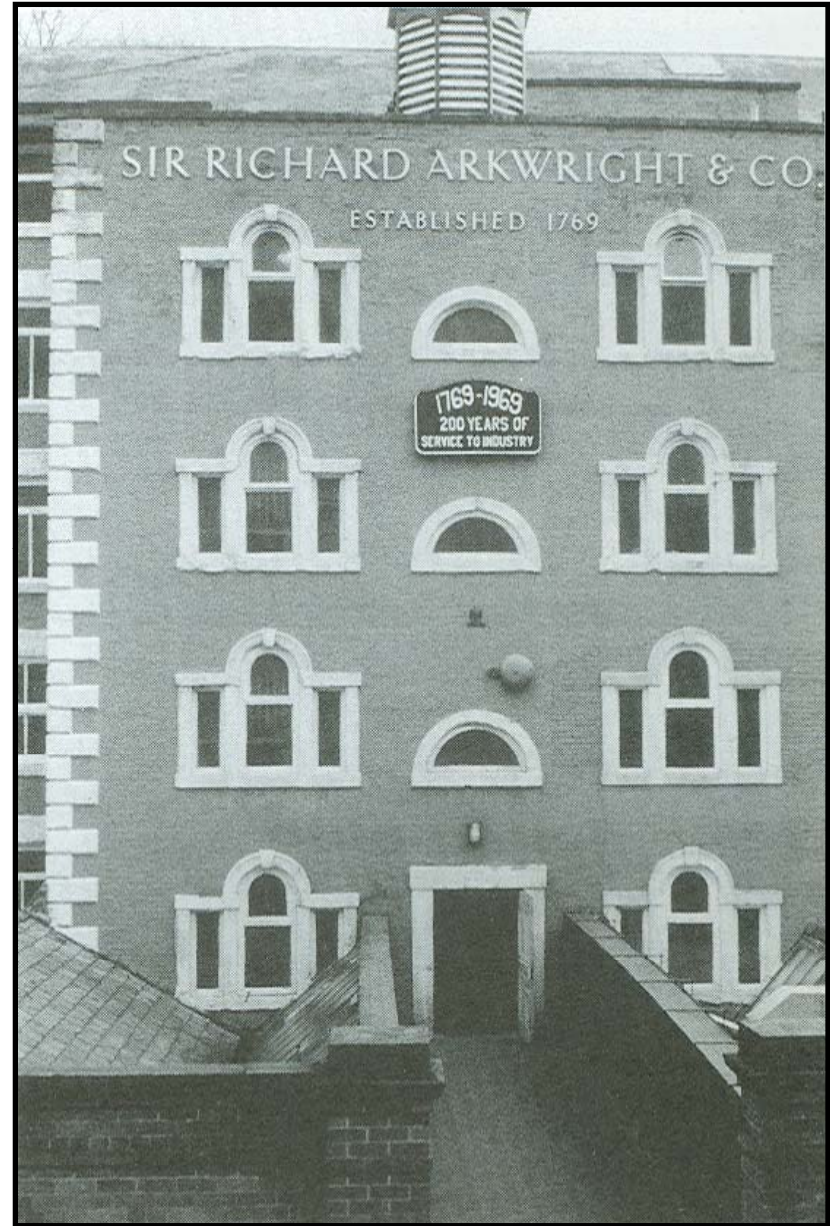
## Buildings and things

“Production”: infrastructure for the industrial city: factories, warehouses, industrial housing estates

“Exchange”: markets – financial, retail, spectacle

**Figure 10.18**  
Arkwright's use of  
Palladian motifs at the  
Masson mill, Cromford,  
Derbyshire (1783)

*"Production"*



Source: *Buildings & Power*, Thomas A. Markus, 1993. Author's transparency.





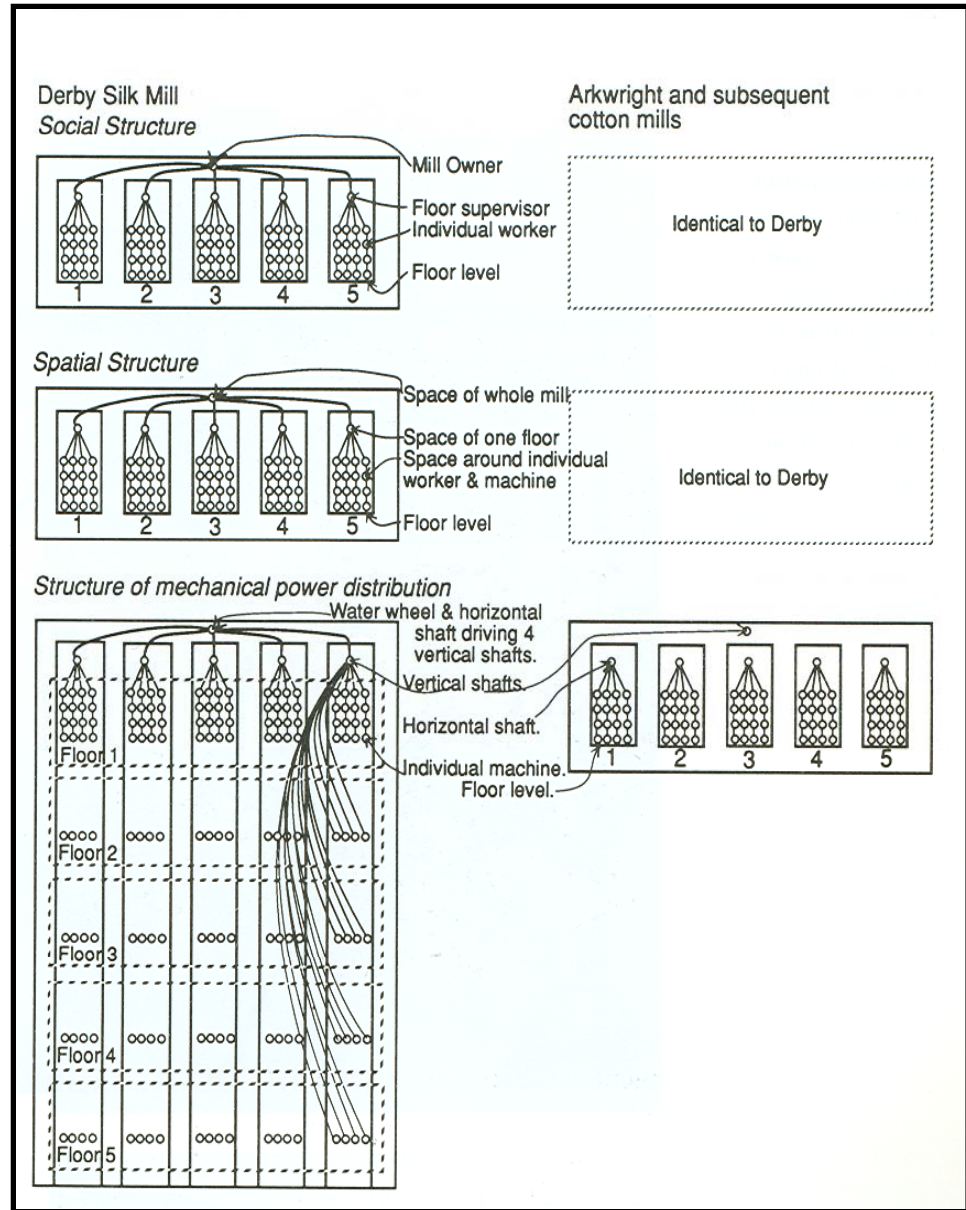
Source: *Buildings & Power*, Thomas A. Markus, 1993

## Figure 10.14 The Lombes' silk mill at Derby (1717-19)

Source: *Nixon* (1774)



**Figure 10.16**  
 Homology of mechanical power distribution, social structure and spatial structure in textile mills



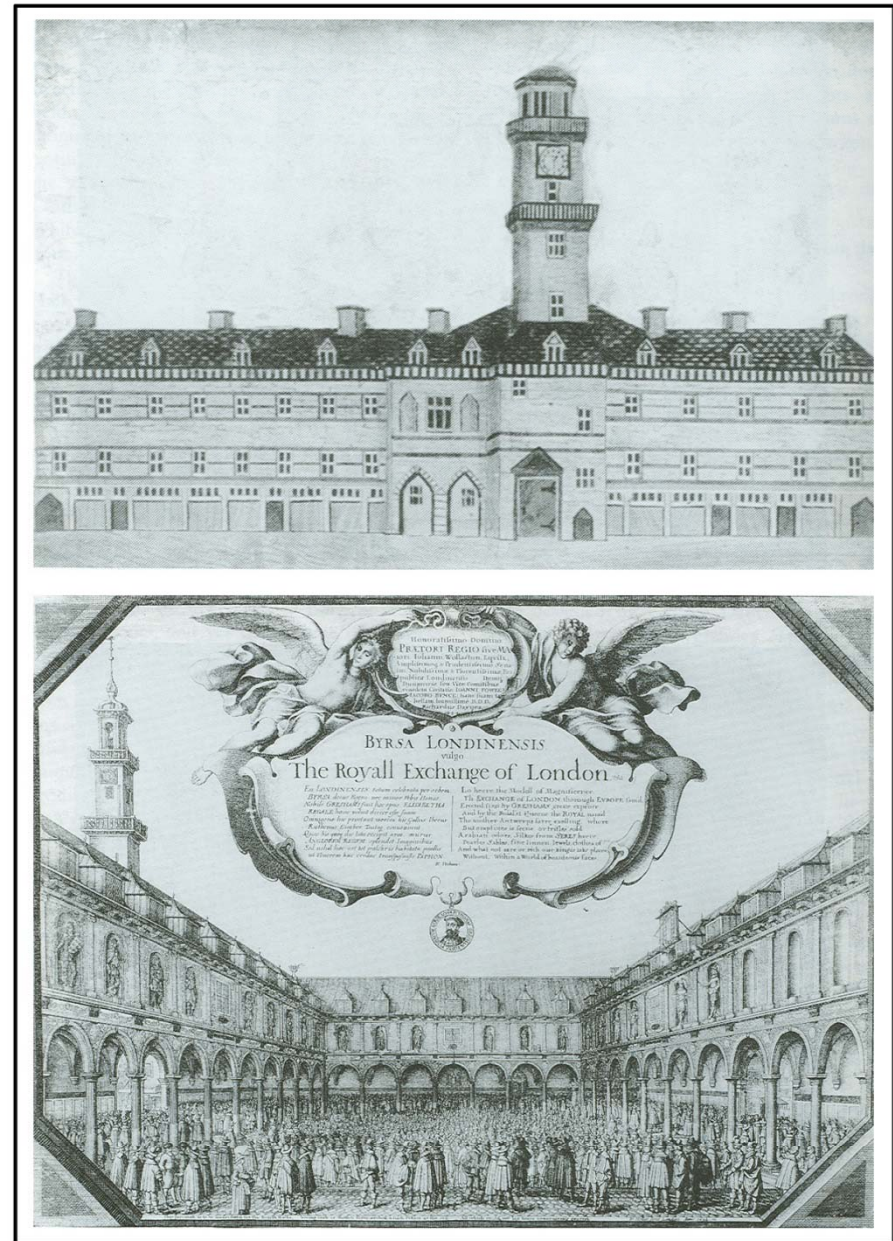
Source: *Buildings & Power*, Thomas A. Markus, 1993, Author's drawing

# Figure 11.18

London's first Royal Exchange: exterior, from a wood inlay, and Hollar's view of the courtyard

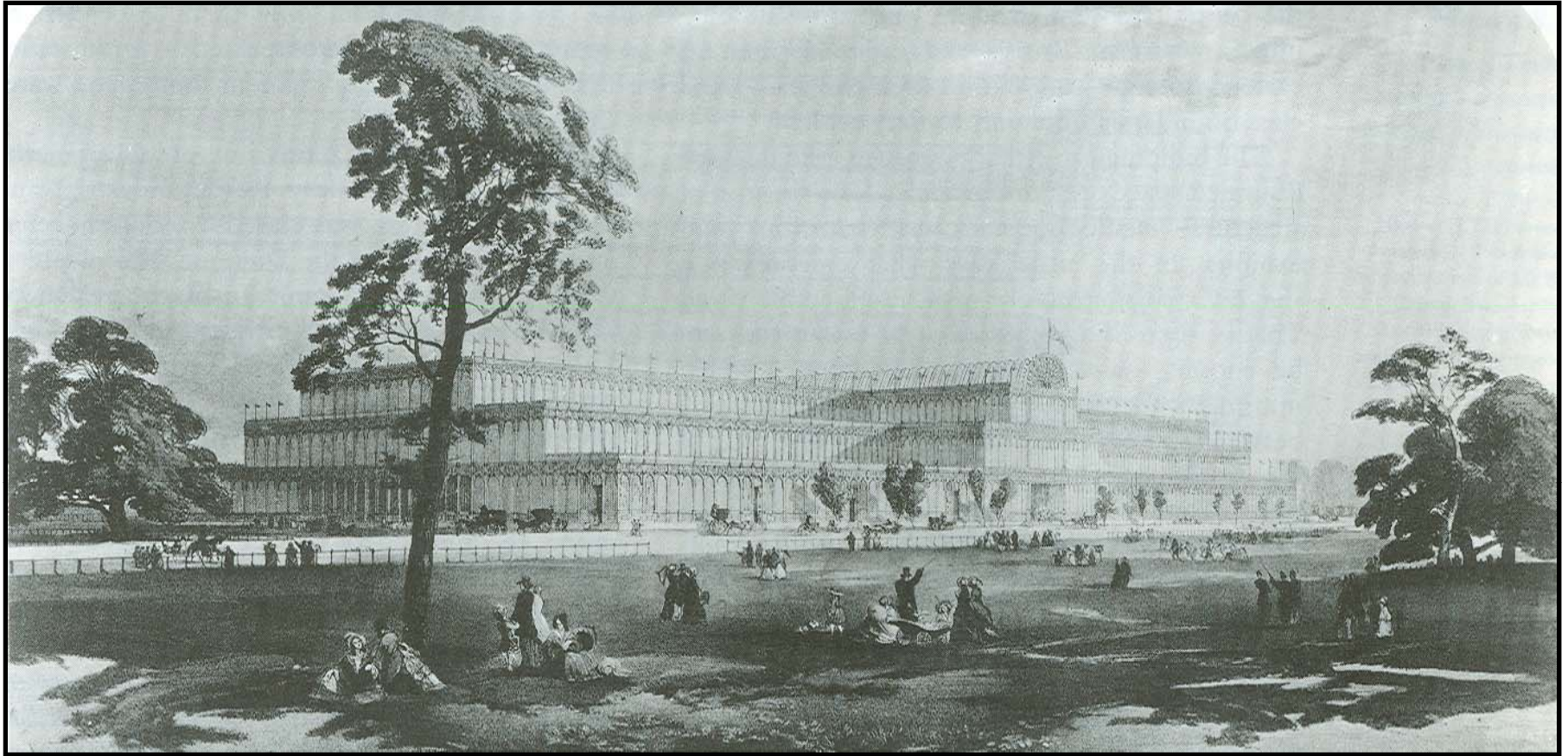
Source: *Guardian Royal Exchange (UK) Limited (exterior); Guildhall Library, Corporation of London (courtyard)*

"Exchange"



Source: *Buildings & Power, Thomas A. Markus, 1993*





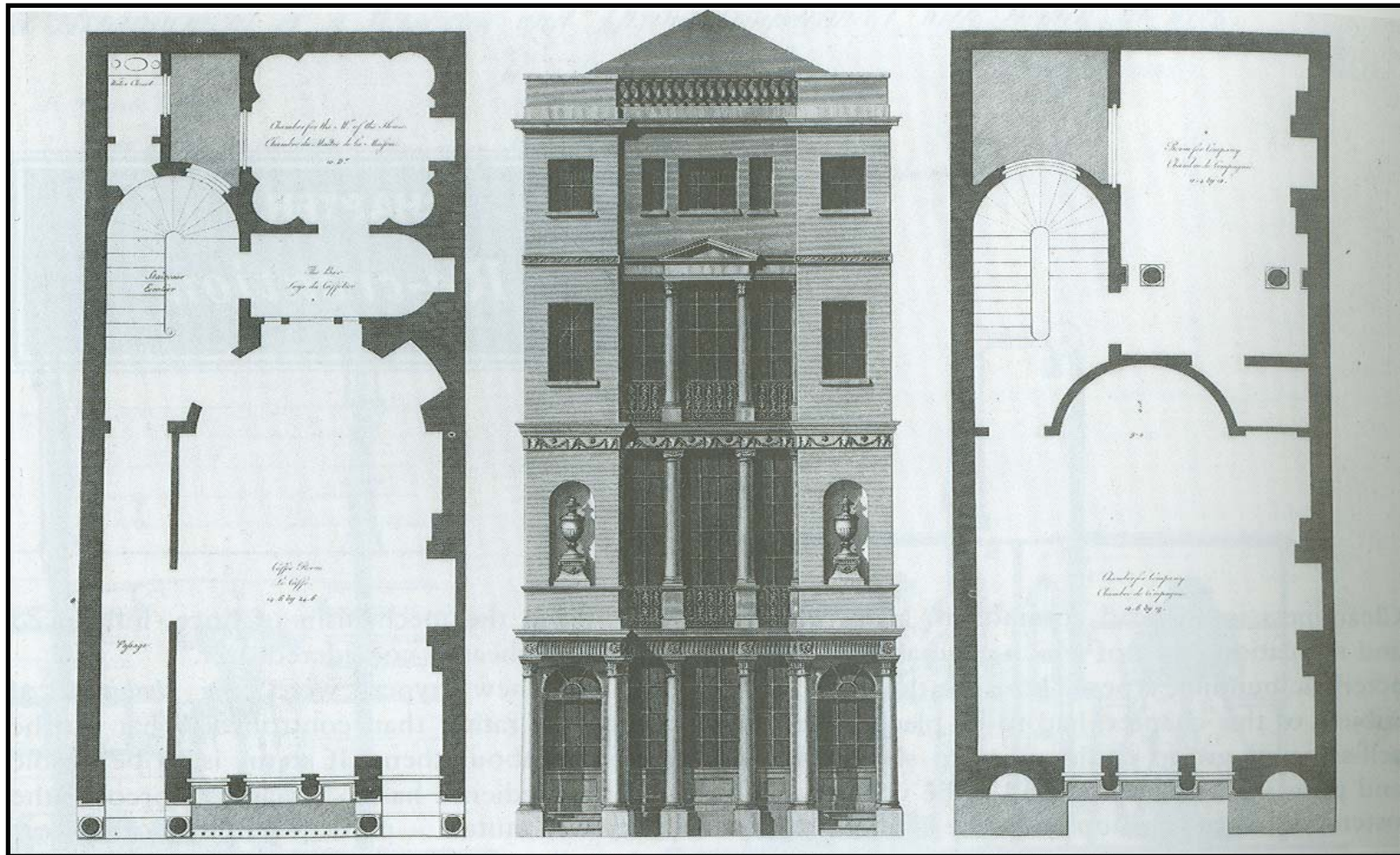
Source: *Buildings & Power*, Thomas A. Markus, 1993

## Figure 8.8 The Crystal Palace (1851)

Source: *Victoria and Albert Museum*, courtesy of the Board of Trustees of the V & A

*"Ephemeral Knowledge"*





Source: *Buildings & Power*, Thomas A. Markus, 1993

## Figure 6.1

Robert Adam's design for the New British Coffee House, Cockspur Street, London (1770)

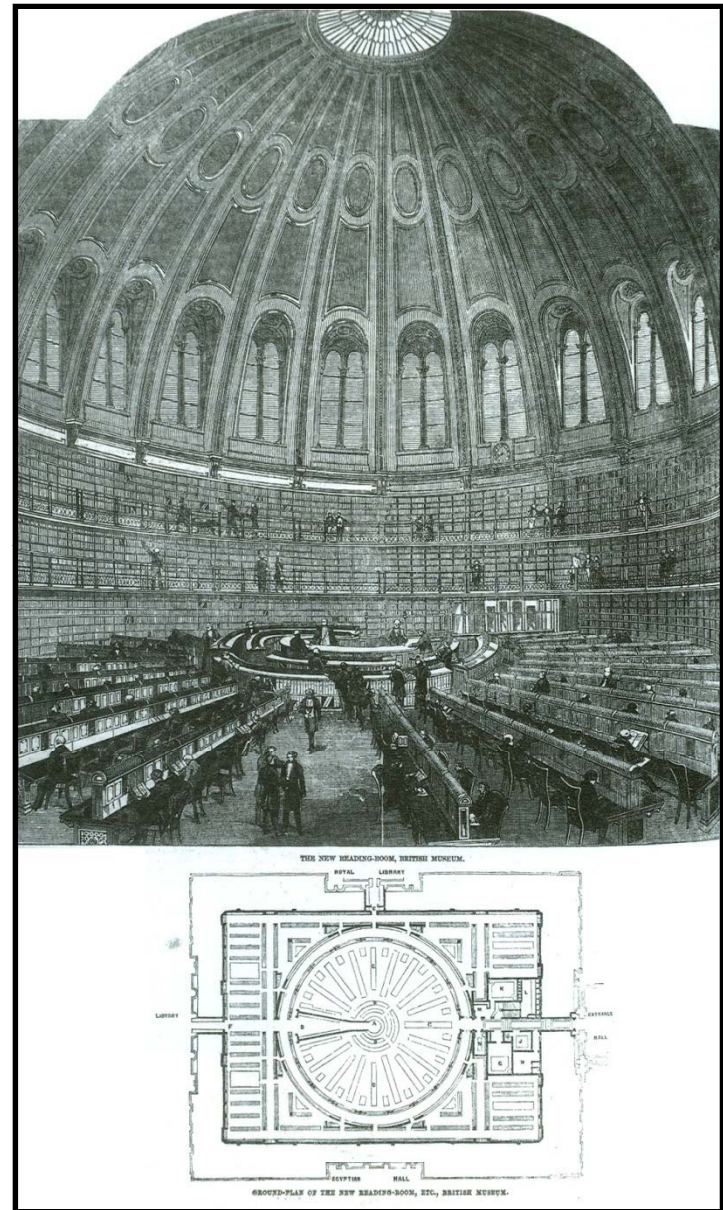
Source: *The works in Architecture of Robert and James Adam vol. 2 (1779 and 1786)*, facsimile V, plate iv, British Architecture Library: "Recreation"



Figure 7.9  
Smirk's design for the  
British Museum Reading  
Room (1852), interior  
view and plan

Source: *Illustrated London News* (1857)  
9 May, *British Museum*

*"Visible Knowledge"*



Source: *Buildings & Power*, Thomas A. Markus, 1993

## The reassertion of production in the inner city

- Parallel narratives of urban scholarship: social ecology models (Chicago School) and 'industrial urbanism'
- Legacies of industrial decline, c. 1960s-1990s: *postindustrialism and post-Fordism*
- Bell's postindustrial theory as 'social forecast' 1973
- Conditions of postindustrialism in the metropolitan core: (1) disinvestment and decline in the inner city, onset of structural unemployment, followed by social upgrading; (2) emergence of corporate office complex in the Central Business District
- Post-Fordism as Marxist position: industrial collapse as a 'normal' crisis of capitalism in the West

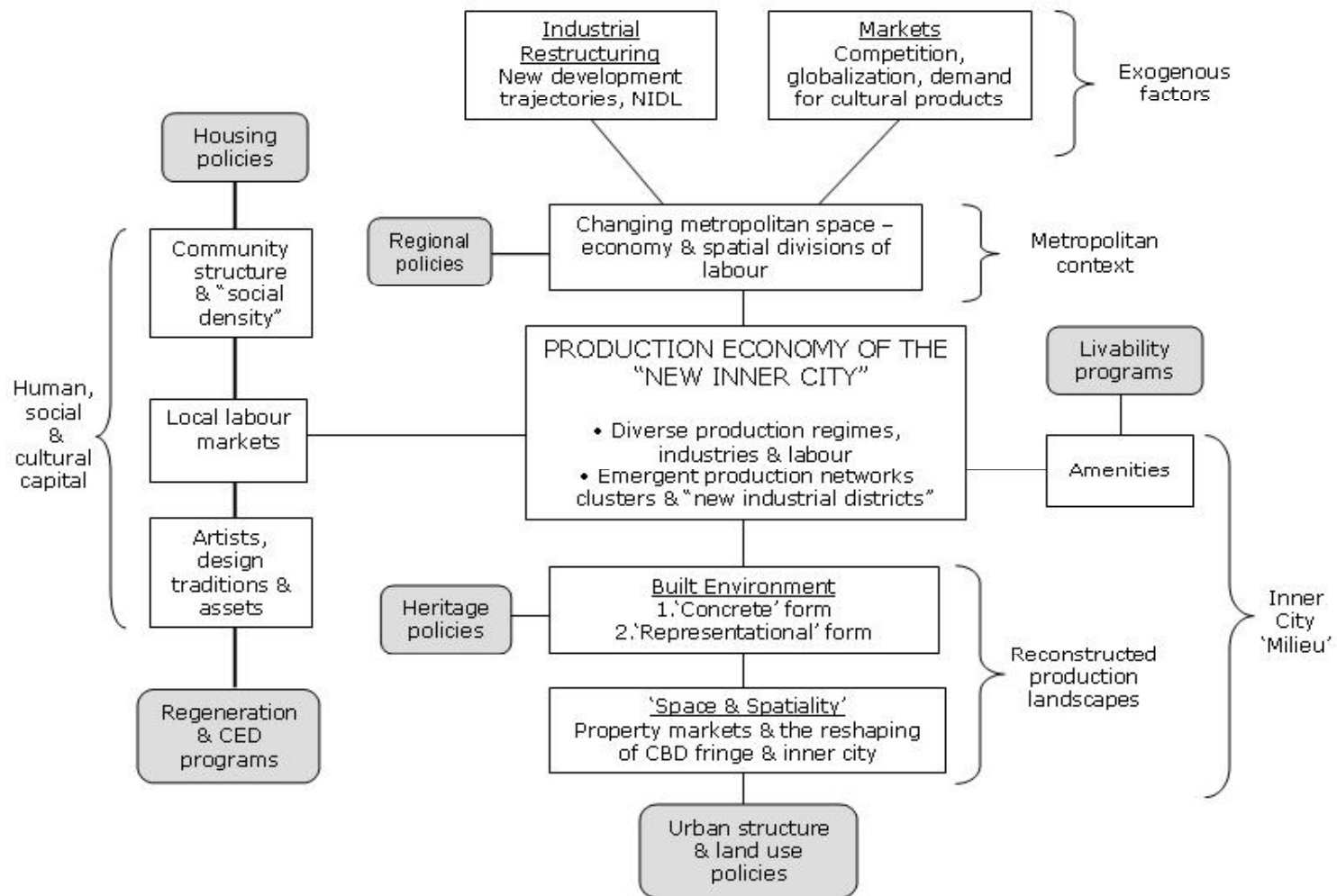
## Imprints of innovation and restructuring in the inner city: acceleration of change and succession since the 1980s

- Structural decline of Fordist production largely 'run its course' by the early 1990s in major western cities
- Initial recolonization of the inner city by artists
- Development of design services, craft production
- Emergence of secondary business centres in largest cities (e.g. Canary Wharf)
- 'New Economy' phase, c. 1995-2000: rise of the 'dot.coms'
- Tech-crash of 2000-2001: differentiated 'recovery periods' from place to place
- Rise of the cultural economy of the city, creative industries, institutions and labour
- Recent growth of housing and 'social reconstruction of the metropolitan core': new gentrifiers, transnational elites

## Geographies of production in the cultural economy

### *Interpretations of new industry formation in the contemporary city*

- Reassertion of industry: Sassen' 'deep economic history of the city thesis'
- Centrality of culture to the metropolis (Zukin, Sacco and Tavano Blessi)
- New industries as evocations of post-Fordism and flexible specialization (Scott)
- The industrialization of artistic production (new media) (Pratt)
- Creative industries and the development of the urban service sector (Bryson)
- New industries and the urban property market (Peck)
- Spatiality, built form, and creative industries in the inner city (aesthetics and non-representational values) (Helbrecht, Hutton)
- An 'institutional perspective' on creative industry formation (Evans)
- The metropolitan economy and new regional divisions of specialized production labour (Scott)
- New industries and the social nature of work (Thrift)



**Factors shaping the production economy of the "new inner city".**

## Place: the revival of inner city industrial districts

- Evolution of the inner city industrial district: pre-industrial artisanal, arts and crafts production; site of 19<sup>th</sup> century industrialization; collapse of Fordist industries and the subsequent reassertion of production
- Hanoi: evolution of the 'Ancient Quarter' – from artisanal production (Sarah Turner) to 'Internet Landscapes' (Bjoern Surborg)
- Elements of continuity and disjuncture: Bathelt's saga of media and new media in Leipzig
- The 'Three industrial narratives' of Manhattan: continuities and volatility
  - a) Garment district: densest production site in U.S. (Norma Rantisi)
  - b) Corporate complex: Sassen, Abu-Lughod
  - c) 'Silicon Alley' New Economy phase: Michael Indergaard
- Peter Hall's conceptualization of the place of culture and creativity in the global city



**Streetscape, via di Fontebranda, Siena.**

## Fortunes of the Oltrarno Artisanal District: Firenze

- Four centuries of arts, design and craft production south of the Arno
- Evidence of continuing robustness: lively landscapes and scenes of artisans and craftsmen along the *via Toscanella*
- Rich amenity landscapes as complements to production
- Adjacency to housing
- Artisans: from input providers to 'primary cultural producers'
- Signs of change: Oltrarno now on the 'tourist circuit', mixed users of consumption, foreign apprentices, use of the Internet for sales and marketing

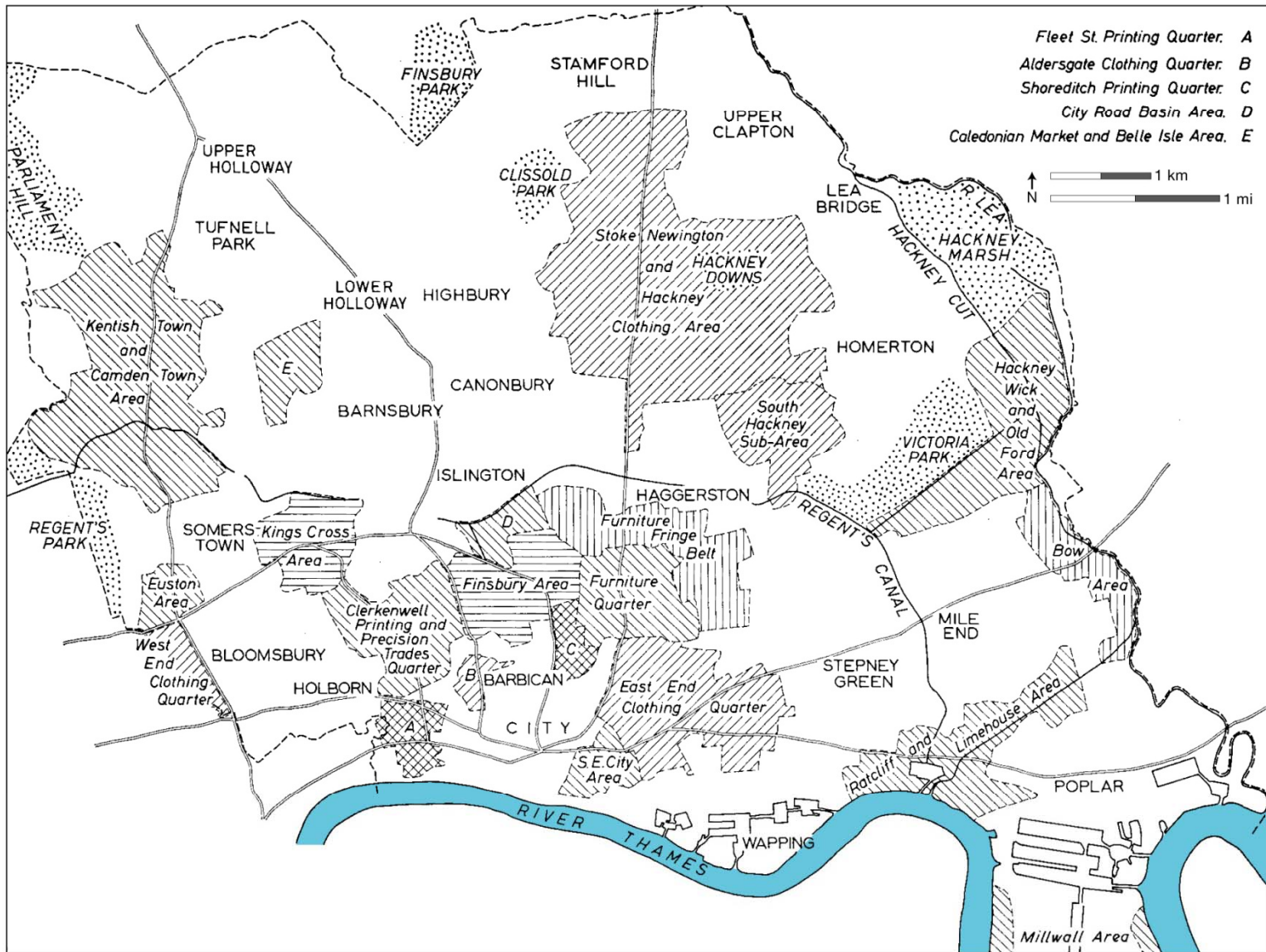




**Oltrarno Artisanal District, Santo Spirito, Florence.**

## Restructuring Narratives in the Global Metropolis: from postindustrial to 'New Industrial' in London

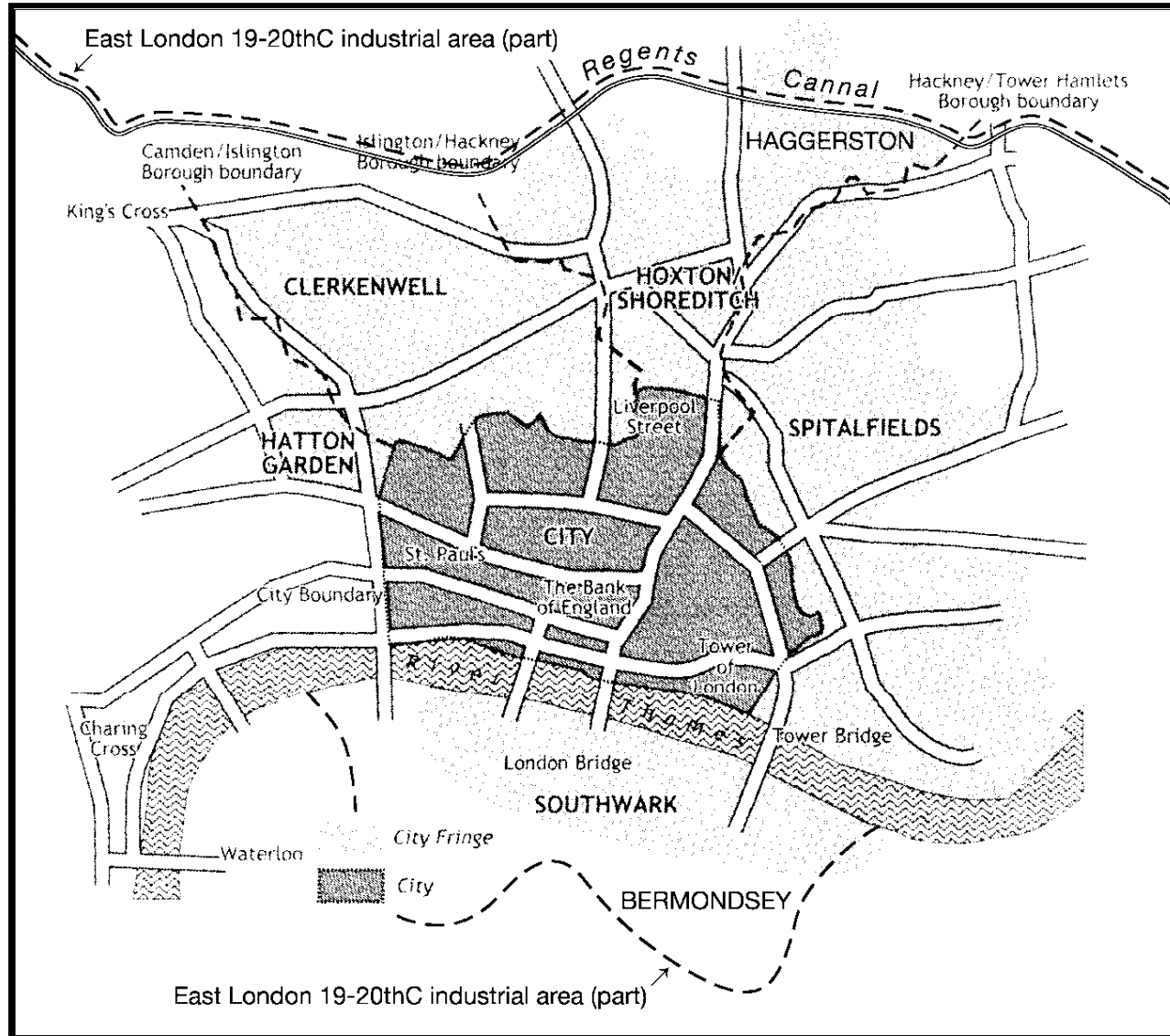
- London's inner city as site of 'world-scale' light manufacturing employment (Sassen)
- Durable ensembles: garment production and tailoring, food and beverage, wood products, plus specialized range of consumer goods and engineering
- Dimensions and causalities of collapse, 1960s-c. 1990 – c. 800K jobs lost net
- Implications for overall economic decline of London
- Effects of 'big bang', financial market liberalization in the 1980s
- Growth of a new cultural economy from the 1970s : sequence of artists, designers, professionals; important institutional supports – contribution to revival of London



**Industrial areas within the Inner North-East London Industrial District.**

## London's Inner City in the New Economy

- Spatial congruence of new production spaces of culture, creativity and design in the London 'City Fringe' with traditional East London industrial districts: Shoreditch, Hackney, Clerkenwell, Bermondsey
- C. 40,000 in the City Fringe cultural economy (of a total of about 125,000 workers)
- Cultural trajectory in inner London: also other new economic spaces: Canary Wharf and Docklands, new financial-business centres (Broadgate, Paddington Basin); 2012 Olympics
- Complexity of industrial production in the Fringe: co-existence of diverse industrial production regimes
- Implications of London property market: how secure is the City Fringe?



The 'City Fringe', selected local areas, and London's traditional inner city industrial district.

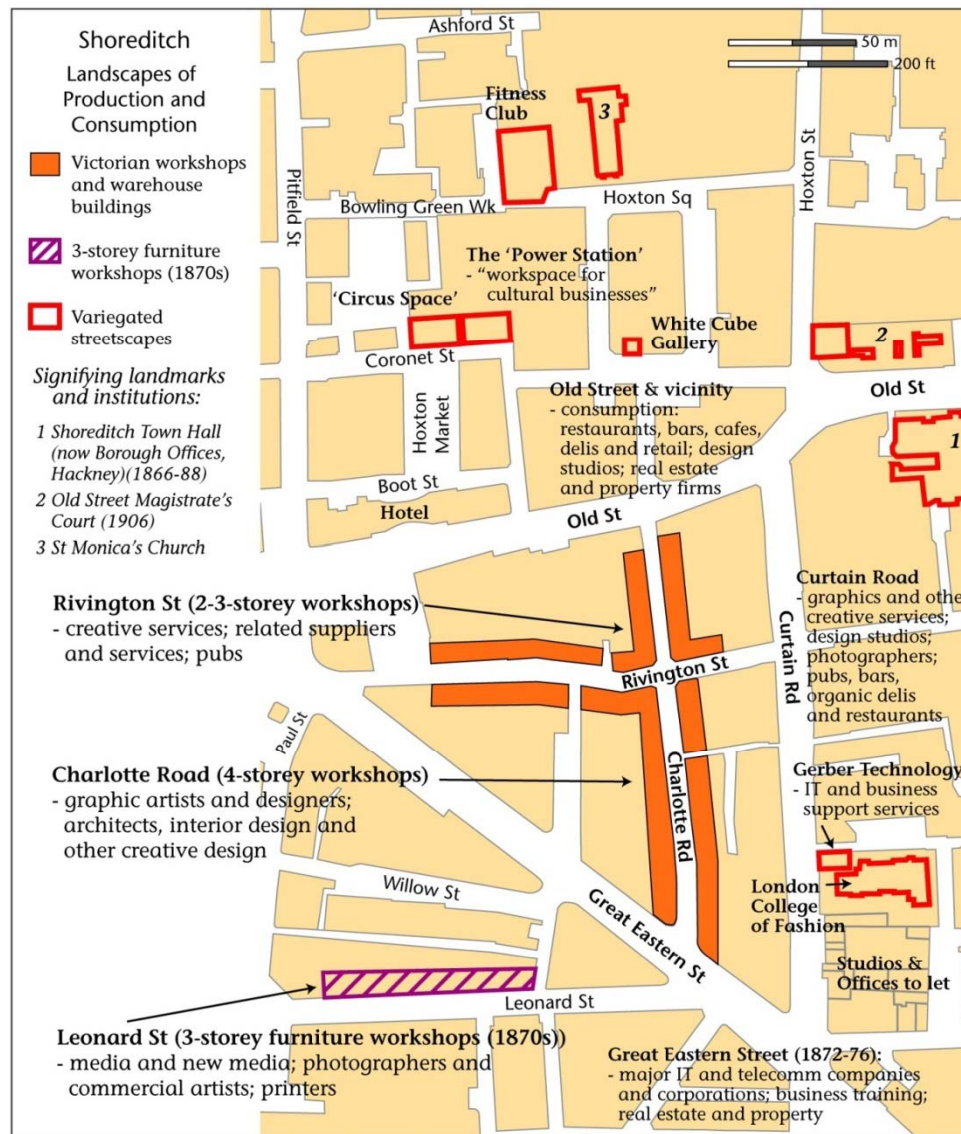
<u>I</u> <u>Pre-Fordist industries</u>	<u>II</u> <u>Fordist industries</u>	<u>III</u> <u>Post-Fordist industries</u>	
		A Intermediate service industries	B Cultural / New economy industries
(1)	(1)	(1)	(1)
Skilled artisans, artists, apprentices	Operatives: skilled, semi-skilled labour, managers and supervisors	Segmented labour: executives, managers, professionals, technical, sales and clerical	Specialized neo-artisanal labour, design professionals, scientific and IT staff, artists, sales, managers
(2)	(2)	(2)	(2)
Workshops, shops, residential space	Factories and plants	Office buildings	Studios, workshops, live-works, work-lives, offices
(3)	(3)	(3)	(3)
Artists Bespoke tailors Bookbinders Jewellers Milliners Model-builders Musical instrument makers Perfume and scent makers Precision instrument makers Silver plate engravers	Food & beverage production <ul style="list-style-type: none"> <li>• bakeries</li> <li>• breweries</li> <li>• food-processors</li> </ul> Garment production (long-run, mass market) <ul style="list-style-type: none"> <li>• factories and plants</li> <li>• sweatshops</li> </ul> Printing and publishing <ul style="list-style-type: none"> <li>• mass-market integrated Fordist production</li> </ul>	Corporate control: head and regional offices Intermediate banking and finance <ul style="list-style-type: none"> <li>• merchant banking</li> <li>• fund managers</li> <li>• stock exchange</li> <li>• insurance</li> </ul> Producer services <ul style="list-style-type: none"> <li>• legal firms</li> <li>• accountants</li> <li>• marketing</li> <li>• management consultants</li> </ul> Property <ul style="list-style-type: none"> <li>• development companies</li> <li>• property manager</li> <li>• estate agents</li> <li>• research and market intelligence</li> </ul>	New media/multi media Internet services and web-design Computer graphics and imaging Software design Digital arts Graphic Design and arts Digital publishing and printing Film production and post production Video game production Music studios Galleries: curatorial services Specialized food and beverages <ul style="list-style-type: none"> <li>• organic food</li> <li>• specialty bakeries</li> <li>• specialty coffee roasting</li> <li>• ethnic foods and beverages</li> </ul>
Note:			
(1) labour			
(2) infrastructure			
(3) representative industries			

**Production regimes, building types and representative industries for London's inner city.**

## Hoxton (Shoreditch, London Borough of Hackney)

- Former specialization in furniture production, garments and tailoring
- Major site of artists in aftermath of industrial collapse: studios and galleries
- 'world-class' artists district (Andy Pratt)
- Insertion of creative industries in the 'micro-spaces' of this iconic district
- Growth of professional design and mainstream commercial business in the 1990s : displacement effects (proximity to the City, Liverpool St Station)
- Increasing role of property market and 'new gentrifiers'
- Hoxton's cultural role increasingly under pressure





**Hoxton and the Shoreditch Triangle, London Borough of Hackney.**





**Figure 12. Spitalfield's Market, London.**



Figure 13. Graphic Designers, Charlotte Road, Shoreditch, London.

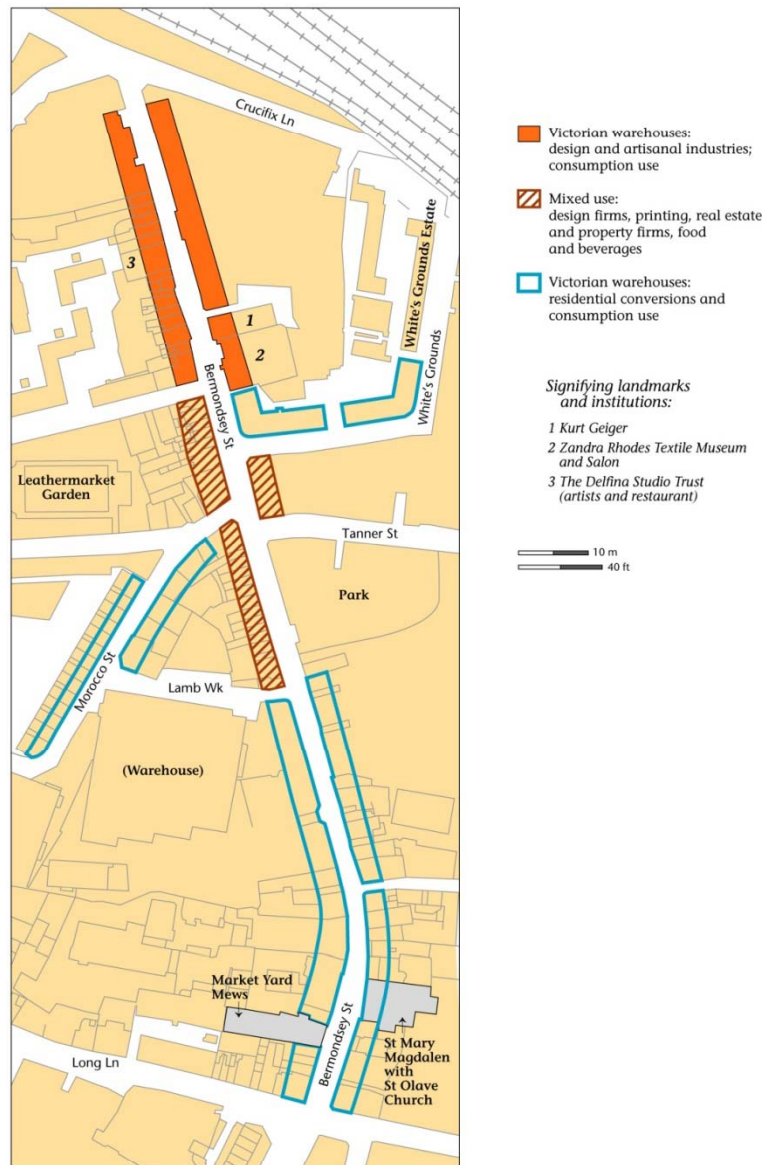
## Bermondsey Street Conservation Area

- Traditional role in warehousing, spices and leatherworks
- Located just to the south of cultural 'global spectacle' in Bankside (Tate Gallery of Modern Art)
- Heritage conservation attracted growing community of artists, designers, cultural workers
- Major sites: Zandra Rhodes, Kurt Geiger, Delfina Trust
- Latest site visits (2006-8) show increasing evidence of residential conversions along Bermondsey Street – squeezing artists and designers



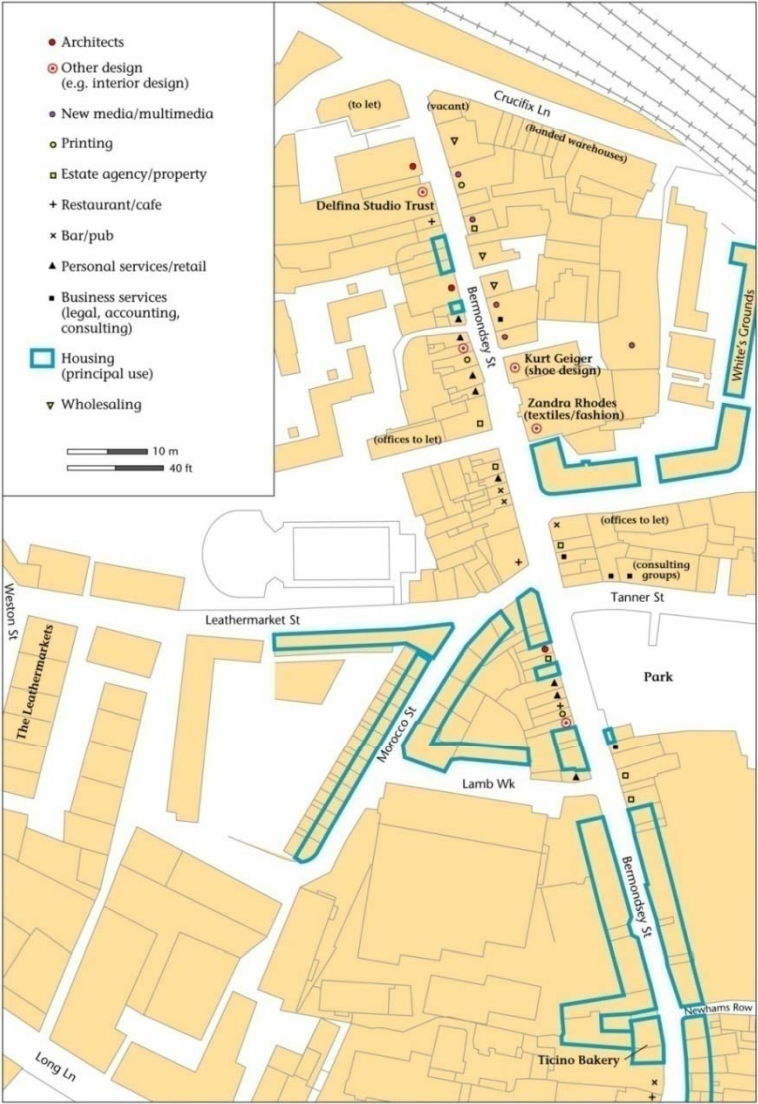
**Tate Gallery of Modern Art, Bankside, London.**





**Bermondsey Street, London borough of Southwark: structural elements.**





**Bermondsey Street: location of selected firms and institutions.**



**Creative industries and loft conversions, Bermondsey Street Conservation Area, London.**



**Zandra Rhodes Textile Museum and Salon, Bermondsey Street, London.**



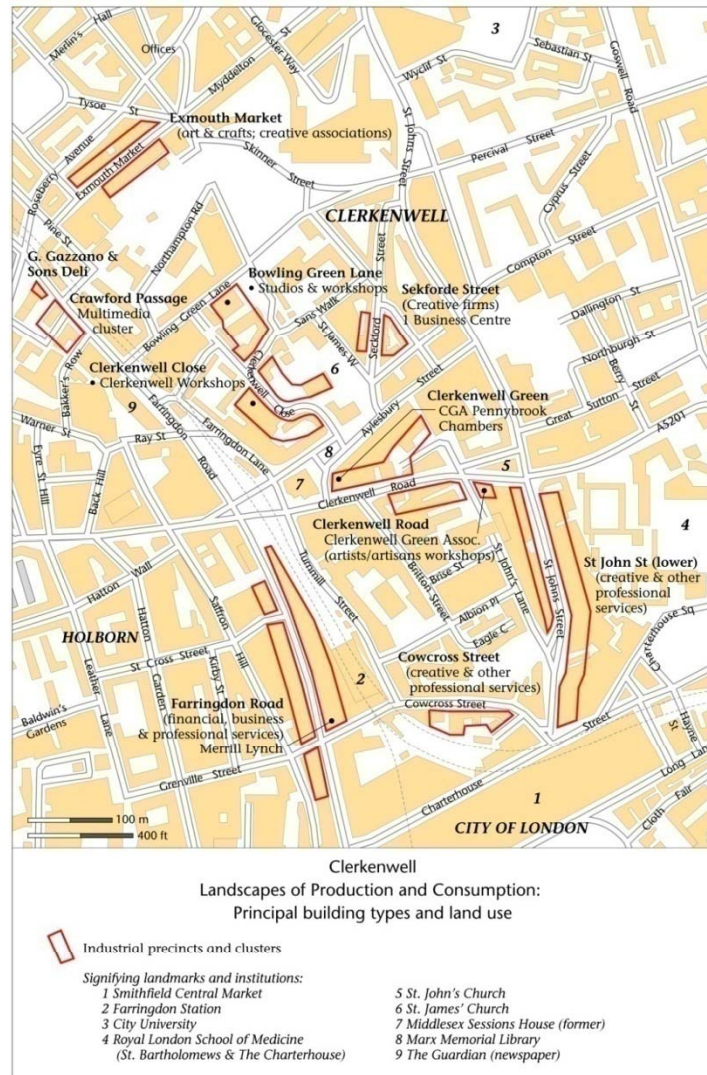


**Loft conversions in Victorian warehouse district, Bermondsey Street, London.**

## Clerkenwell: artisanal production versus the London 'property machine'

- Historic site of precision trades
- Historical resonance: Marx, Lenin, Dickens
- Efforts to promote traditional artisanal production: role of Clerkenwell Green Association, Clerkenwell Workshops, Mike Franks and other leaders
- New trajectory of elite artists and designers (film makers, star architects, ne media, music producers) displacing craft workers: 'industrial gentrification'
- Parallel trajectory of insistent social upgrading
- Incursion of commercial firms – proximity to the City of London, redevelopment of Kings Cross





Specialized production zones and sites in Clerkenwell, London Borough of Islington.



Convivial consumption, Clerkenwell, London.

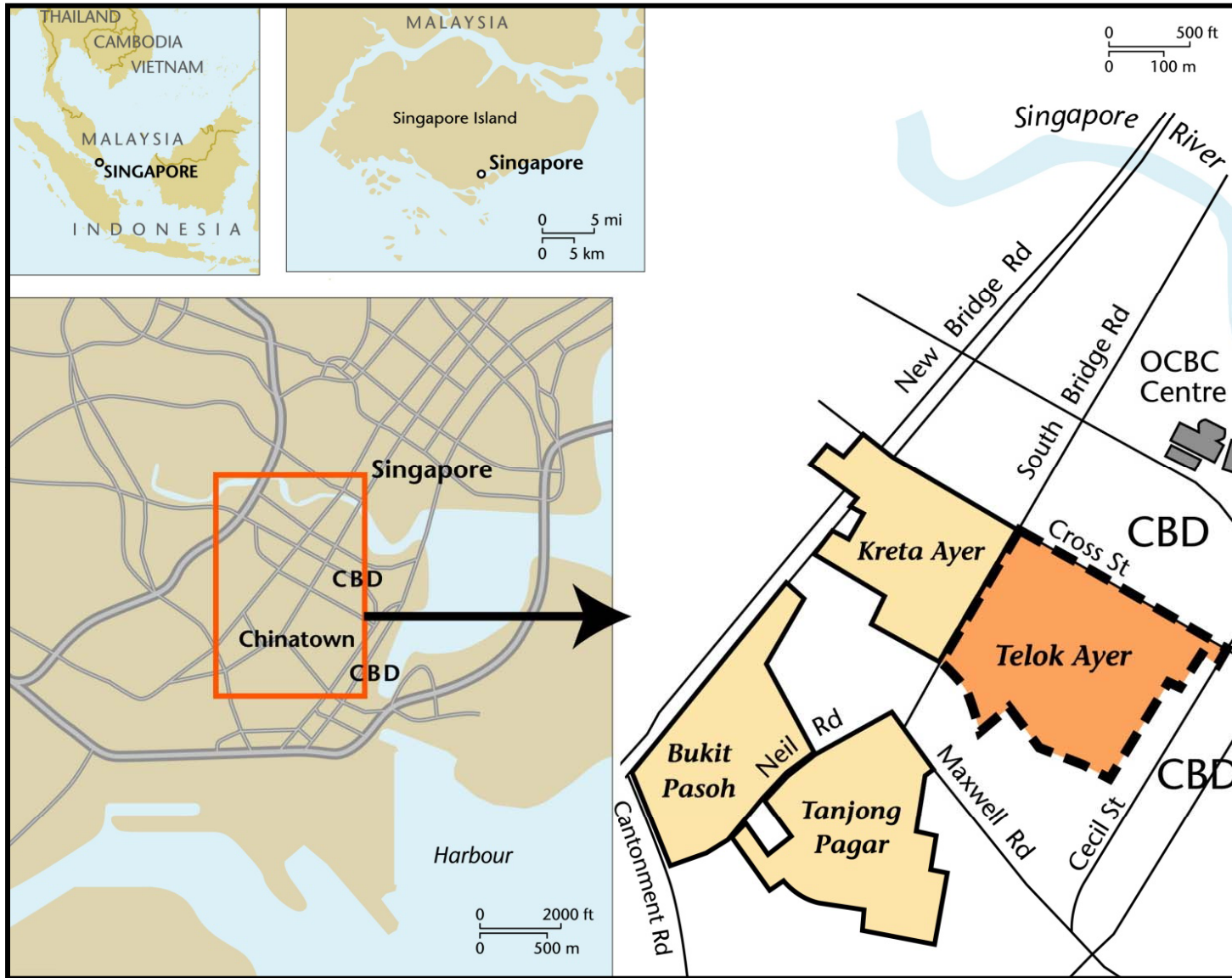




**Clerkenwell Workshops, London (formerly London School Warehouse 1895-97).**

## Inscriptions of Restructuring in Telok Ayer, Singapore

- Singapore as the exemplary 'developmental city-state'
- Decline and heritage in the inner city (Chinatown)
- 'spontaneous' imprints of innovation and restructuring in Telok Ayer, one of 4 heritage districts in Chinatown
- Emergence as site of arts and design in the 1980s
- Abbreviated 'New Economy' phase in last 1990s: landscapes of dot.coms
- Tech-crash in 2000, but rapid recovery as site of cultural activity
- Recasting of Telok Ayer as 'global village: media, culture and amenity' in the early 21<sup>st</sup> century



Telok Ayer in its local and regional settings.

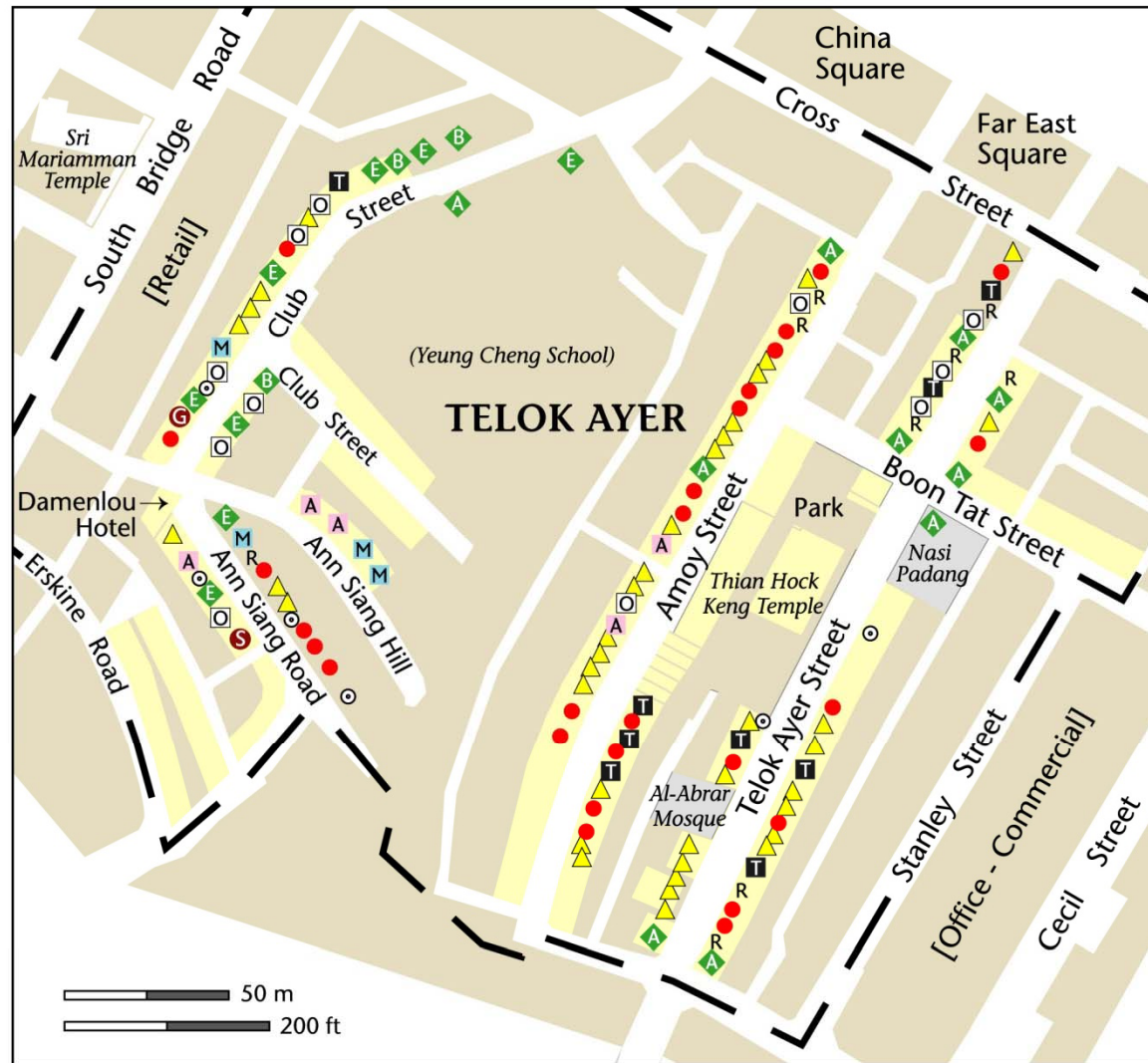




**Shophouse landscape 1840's, Telok Ayer, Singapore.**

### Distribution of Firms

- 'New Economy' firms: Internet, web design, multi-media and dot coms
- Media, publishing
- ▲ Architects
- Other design firms
- ▲ Business and professional services
- Trading companies
- ◆ Traditional restaurant (East & South-east Asian)
- ◆ European restaurant
- ◆ Bar
- R Retail/personal services
- Ⓢ Sports facilities and gyms
- ⓐ Galleries
- ⊙ Chinese clan association



Telok Ayer as new Economy site 2000.

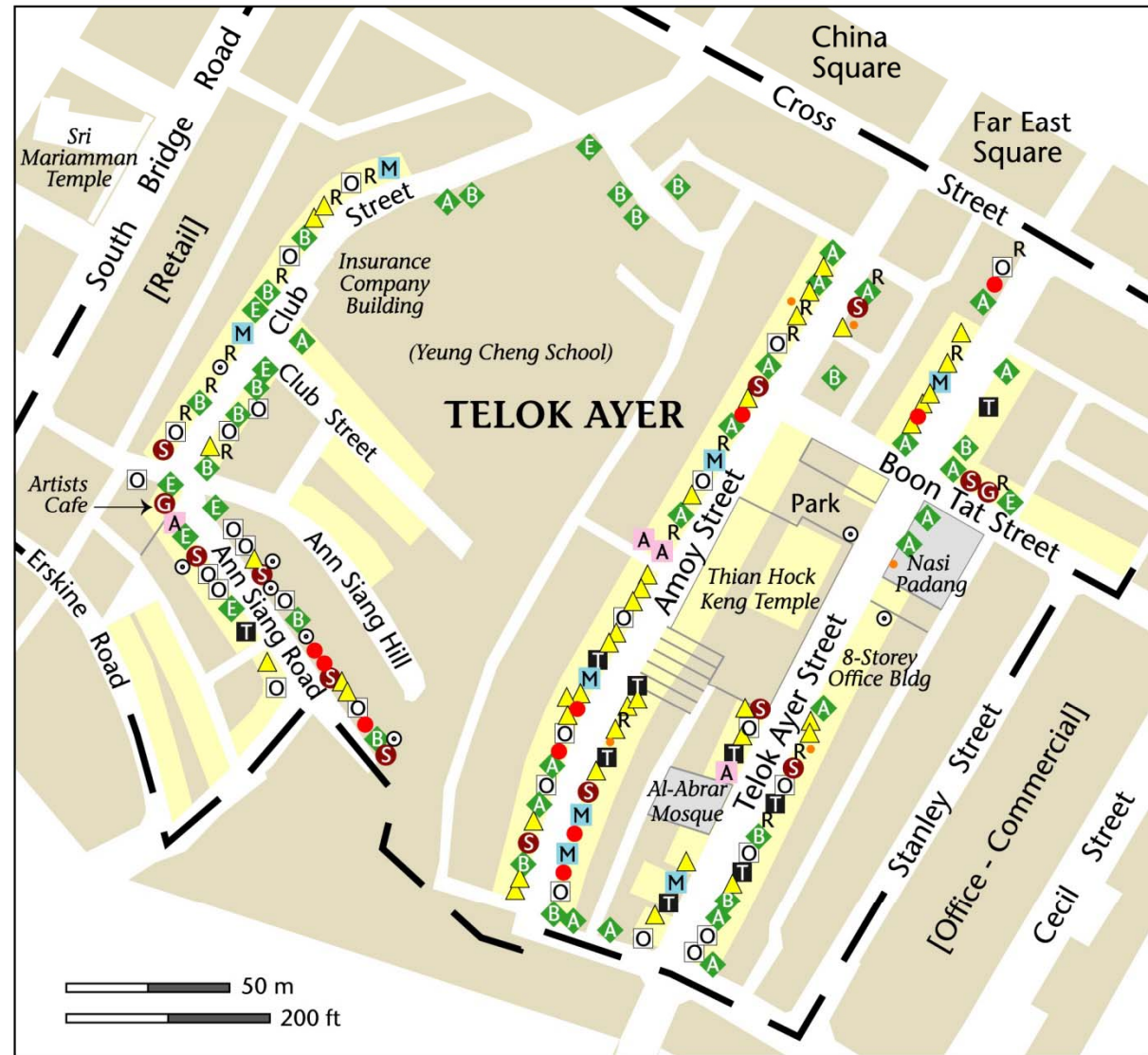




Telok Ayer in the New Economy, c.2000.

### Distribution of Firms

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- Ⓢ Sports facilities, gyms and spas
- Ⓜ Galleries
- ⊙ Chinese clan association
- Coffee shop



Telok Ayer as 'global village': media, culture and amenity, 2006.



**Artist's studio, Ann Siang Road, Telok Ayer.**

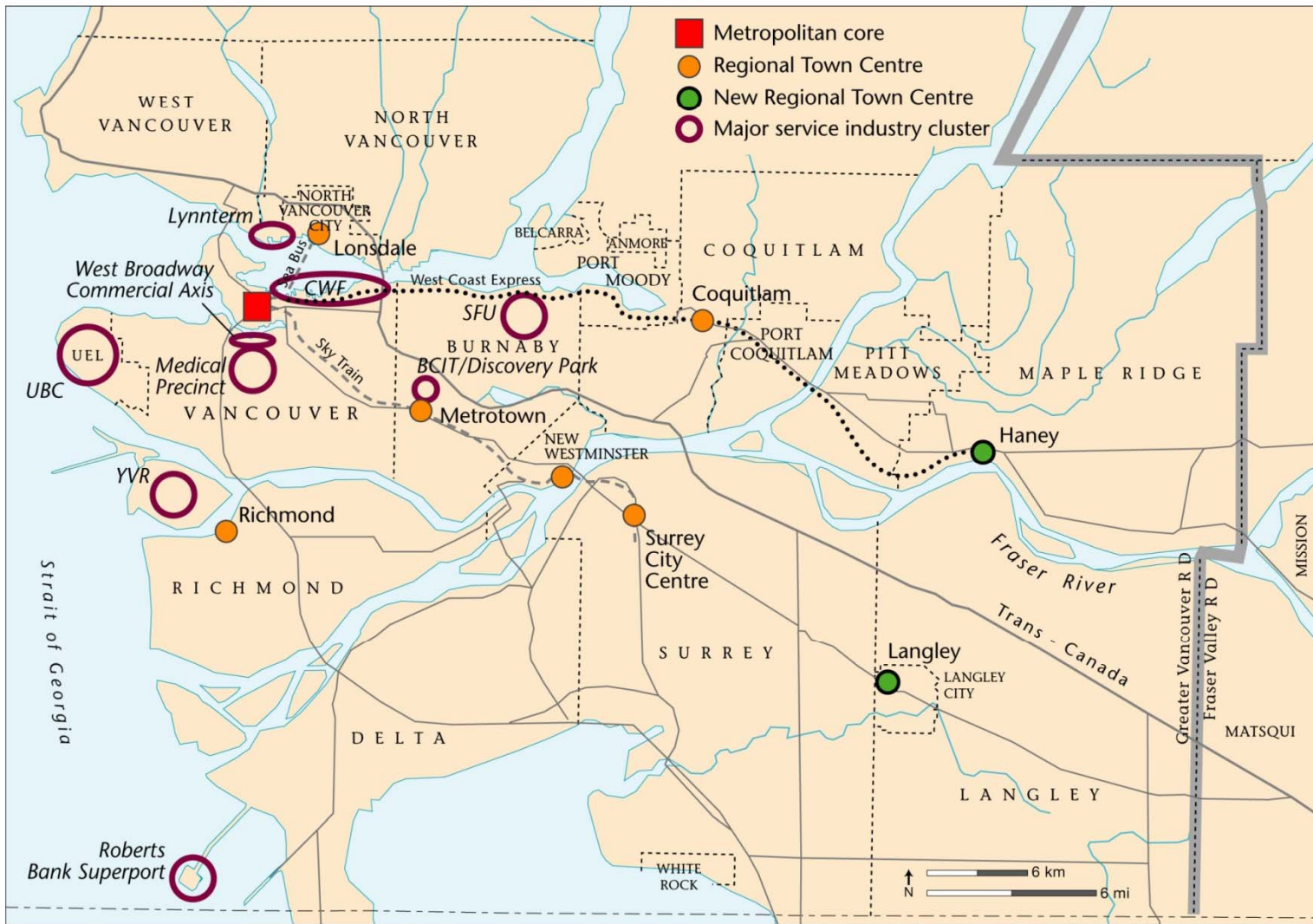




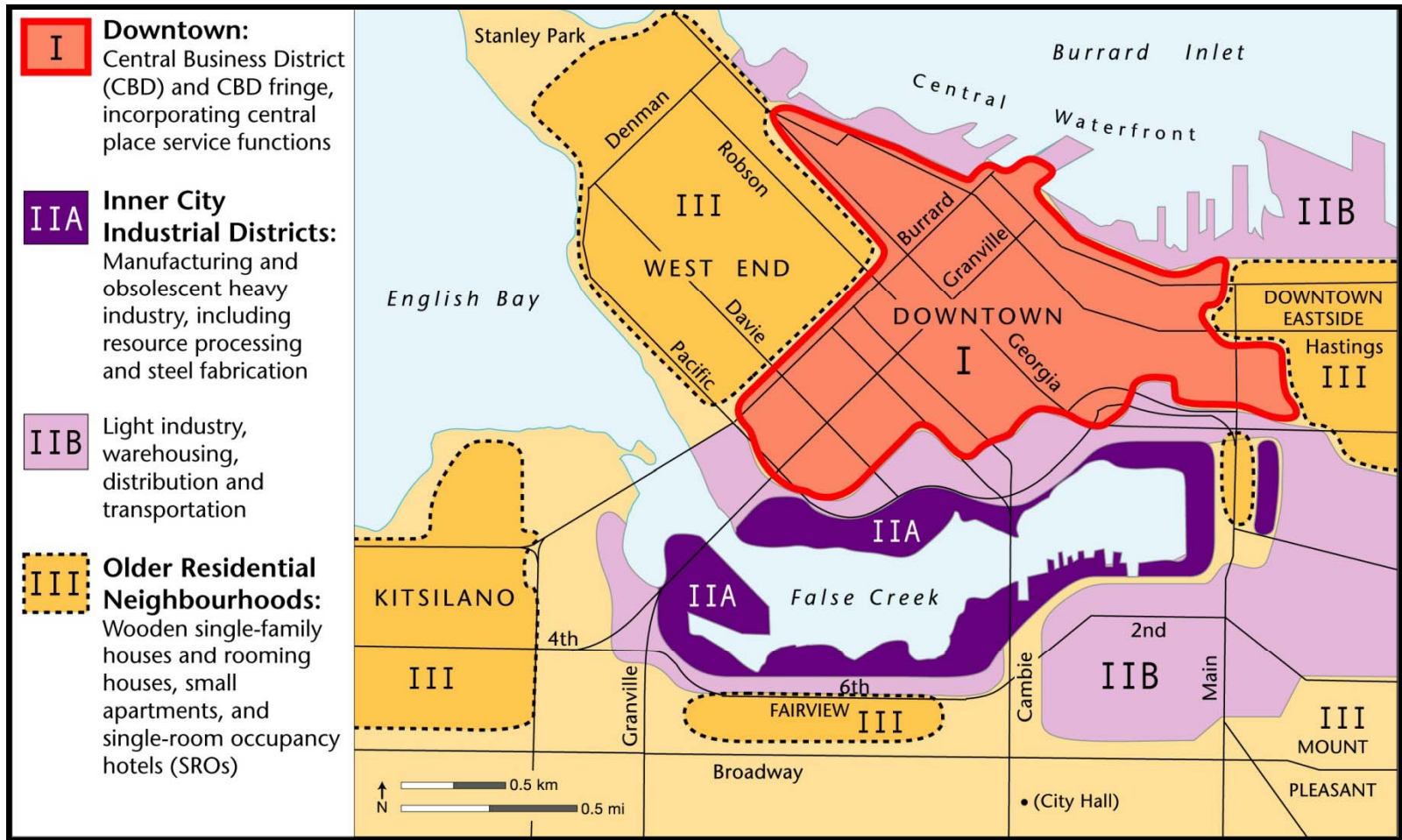
Consumption landscape, Telok Ayer.

## Vancouver: new industry formation and the reconstruction of the metropolitan core

- Structure of the central city at mid-century: CBD, inner city industry and resource processing, low-rise residential neighbourhoods
- Collapse of industry: market forces + 'postindustrial policy values'
- Seminal influence of the Central Area Plan (1991): reordering space in the central city
- Privileging of housing in the Plan: consolidation of the CBD, new allocations of space for housing
- Coincident emergence of new production spaces in the CBD fringe and inner city districts: generation of a new 'space-economy' of specialized production in the urban core

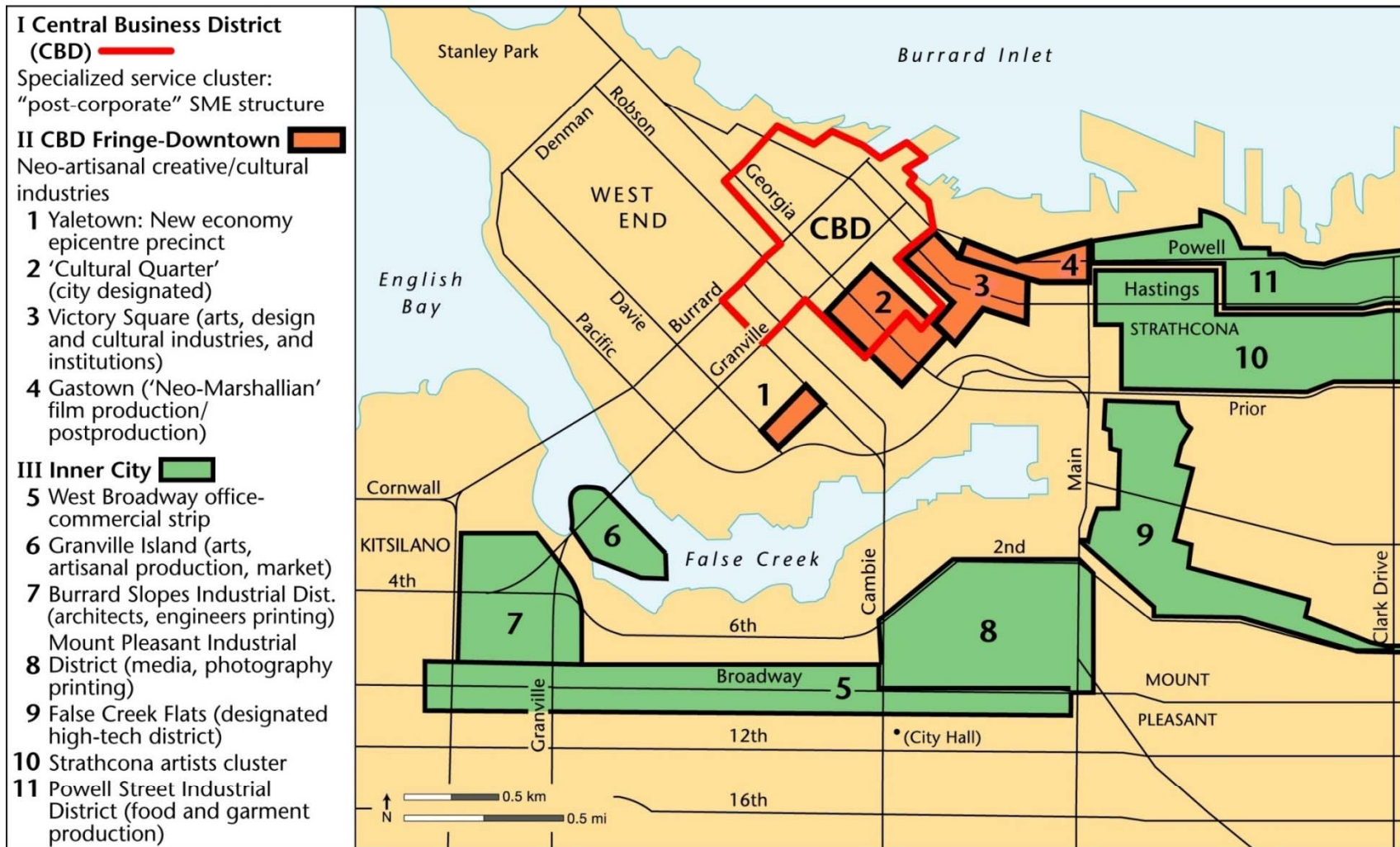


**Principal industrial clusters and employment centres in Metro Vancouver.**



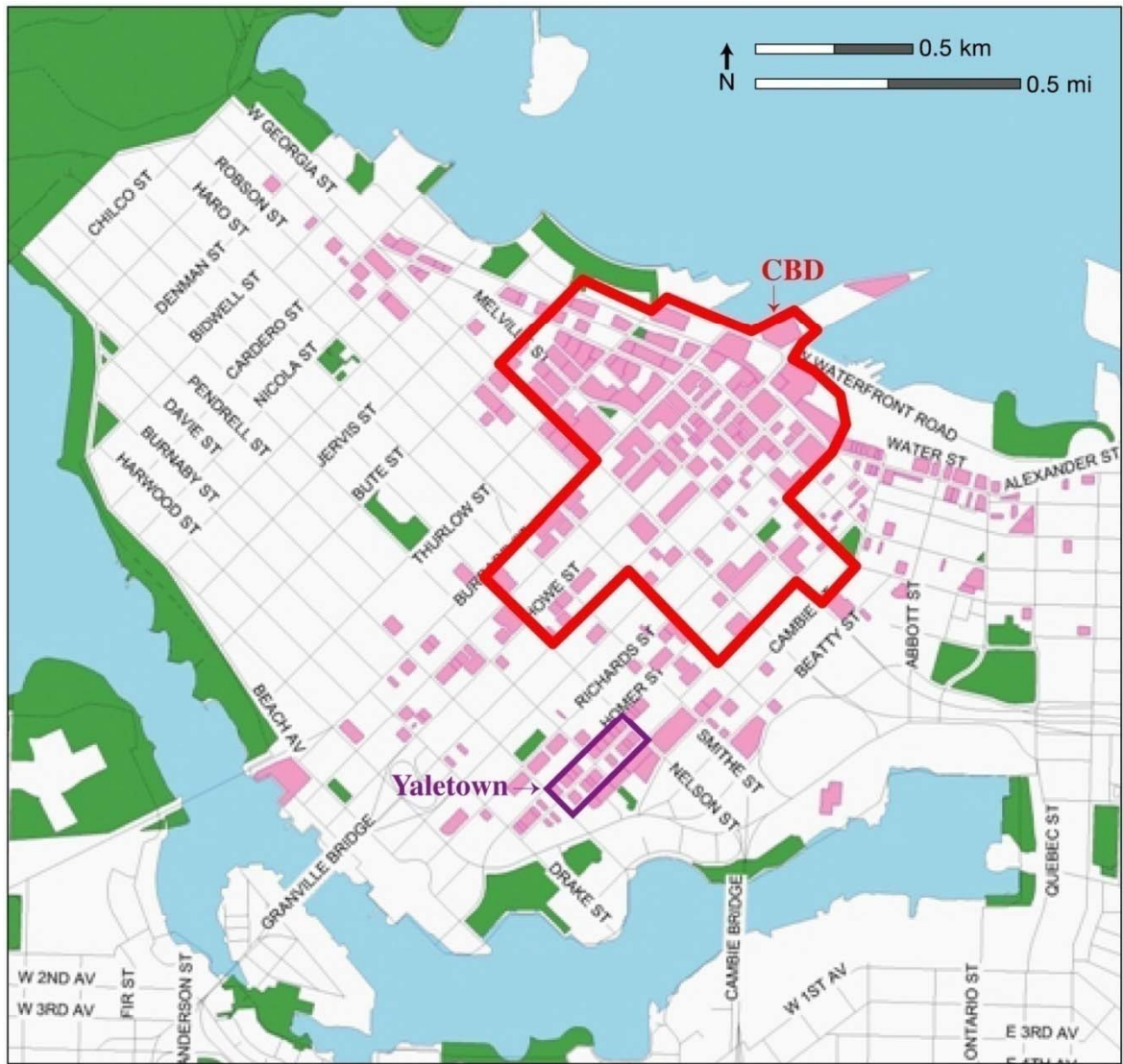
Zonal structure of Vancouver's central area at mid-century.





The space-economy of specialized production in Vancouver's metropolitan core, 2008.



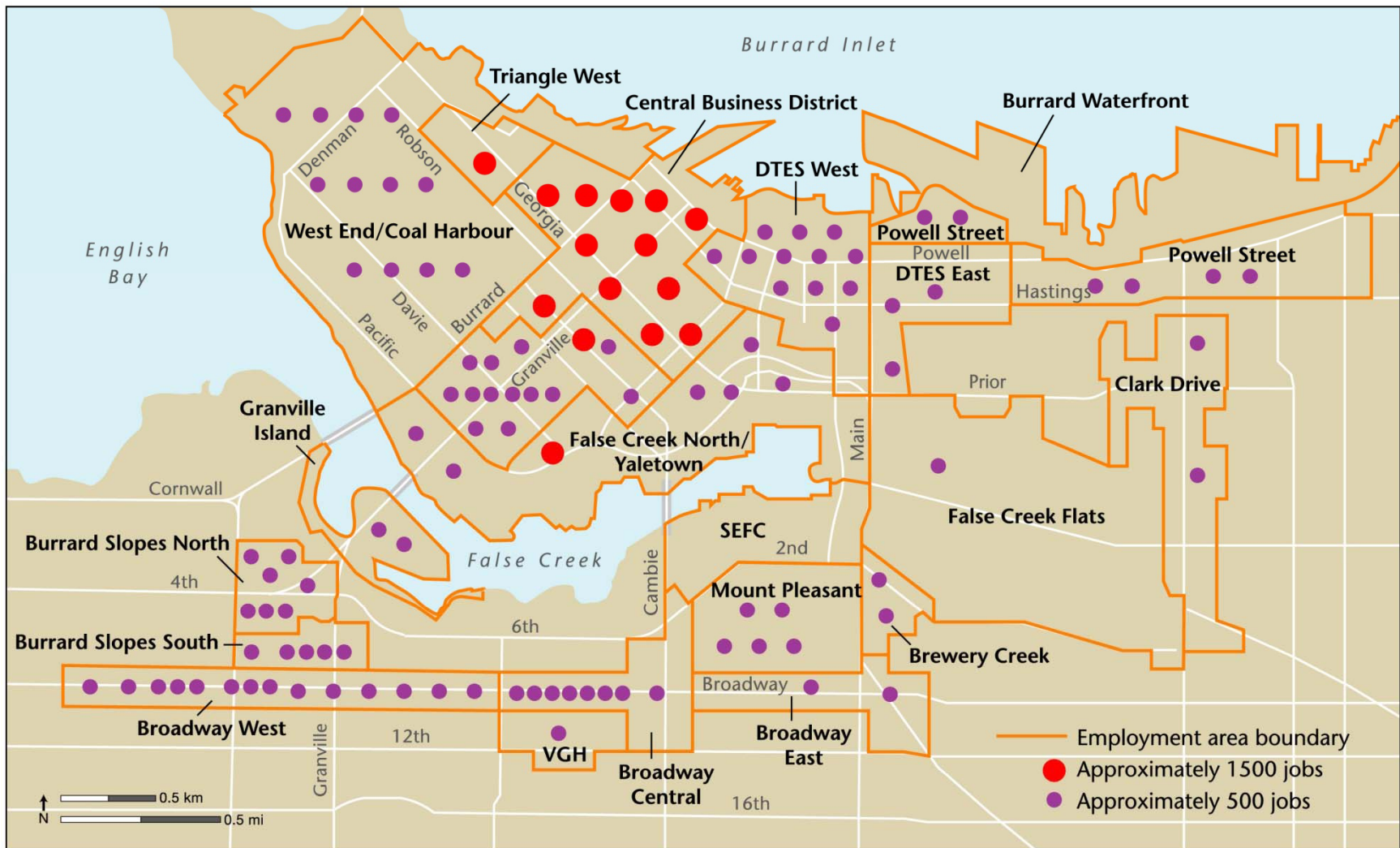


**Distribution of office space in Vancouver's downtown, 2006.**

Source: City of Vancouver Planning Department (2006).



Distribution of firms for selected industries, for Vancouver's central area, C.2004.



**Distribution of professional, scientific, and technical workers for Vancouver’s metropolitan core, 2001.**

Source: City of Vancouver Planning Department (206), data derived from 2001 Census of Canada.





**Distribution of artist's studios and galleries, Strathcona and Grandview-Woodland.**

Source: Sacco 2007

## Victory Square

- Historic banking, commercial and retail core of the original Vancouver townsite
- Decline from the 1970s as the city centre shifts westwards
- Insertion of artists in older housing
- Change in the social morphology, growth in crime and disorder in the Downtown Eastside
- Growth of new institutions for arts and design
- Impact of the Woodward's project: 500 housing units (market and social), SFU Centre for Contemporary Arts, new retail spaces
- Acceleration of transition and change in this historic district

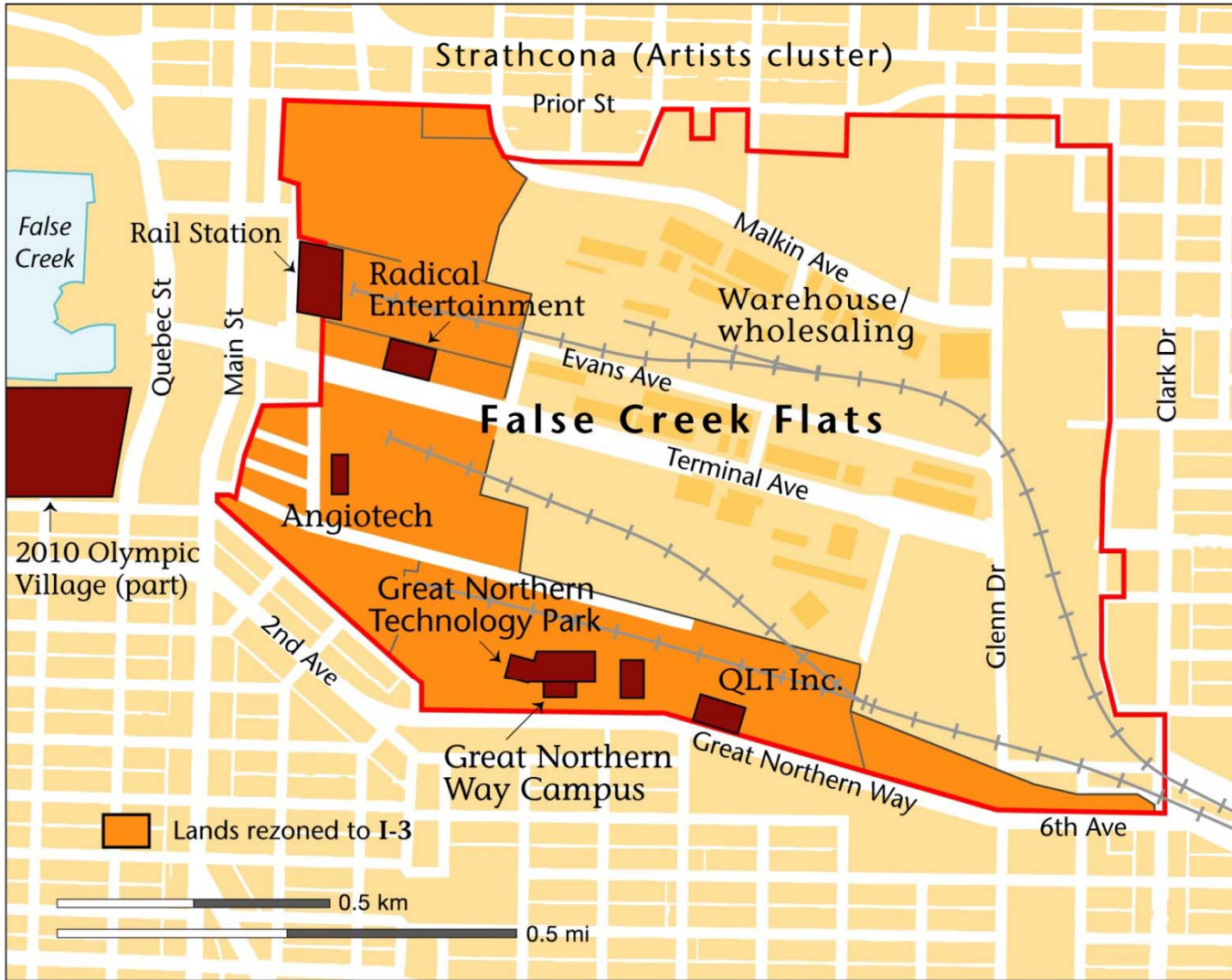




**Victory Square heritage area and creative industry site.**

## False Creek Flats : fortunes of a New Economy site

- Historic role as site of industrial production, warehousing and distribution
- Decline in the 1970s/80s:
- designated as 'High Tech Zone' in City plans of 1999: problems with the process
- Collapse of Tech Economy in 2000 compromised plans for a New Economy site
- 'Incremental' development over last 5 years: Radical Entertainment (major video game publisher, owned by Vivendi; example of 'extensive production networks' as opposed to 'clustering' model), biotech firms, Great Northern Way Campus (degrees in digital design)
- Effectively extends the new production zones of the inner city

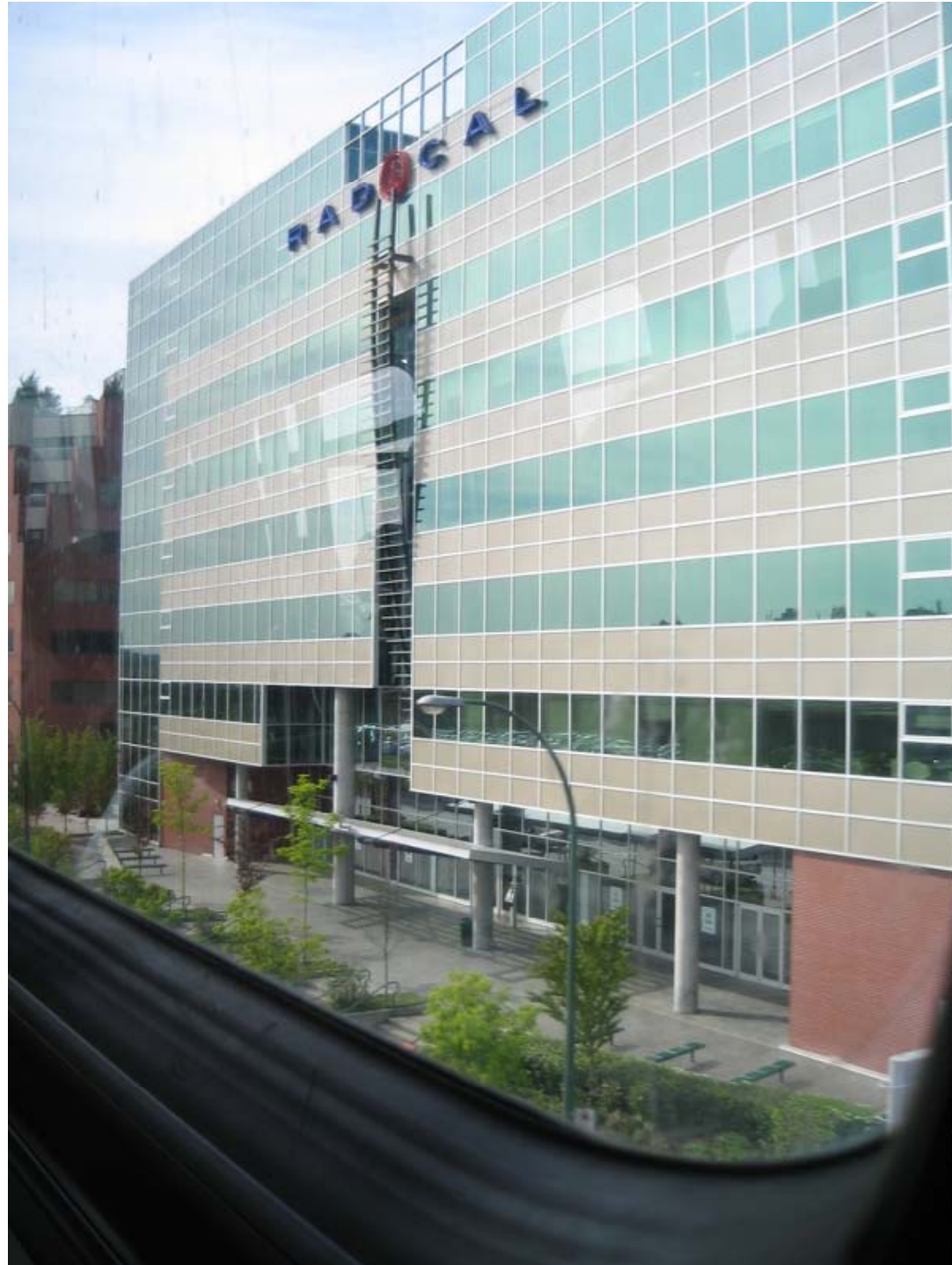


**False Creek flats 'New Economy' site, Vancouver metropolitan core.**



Radical  
Entertainment:

False Creek Flats,  
Vancouver



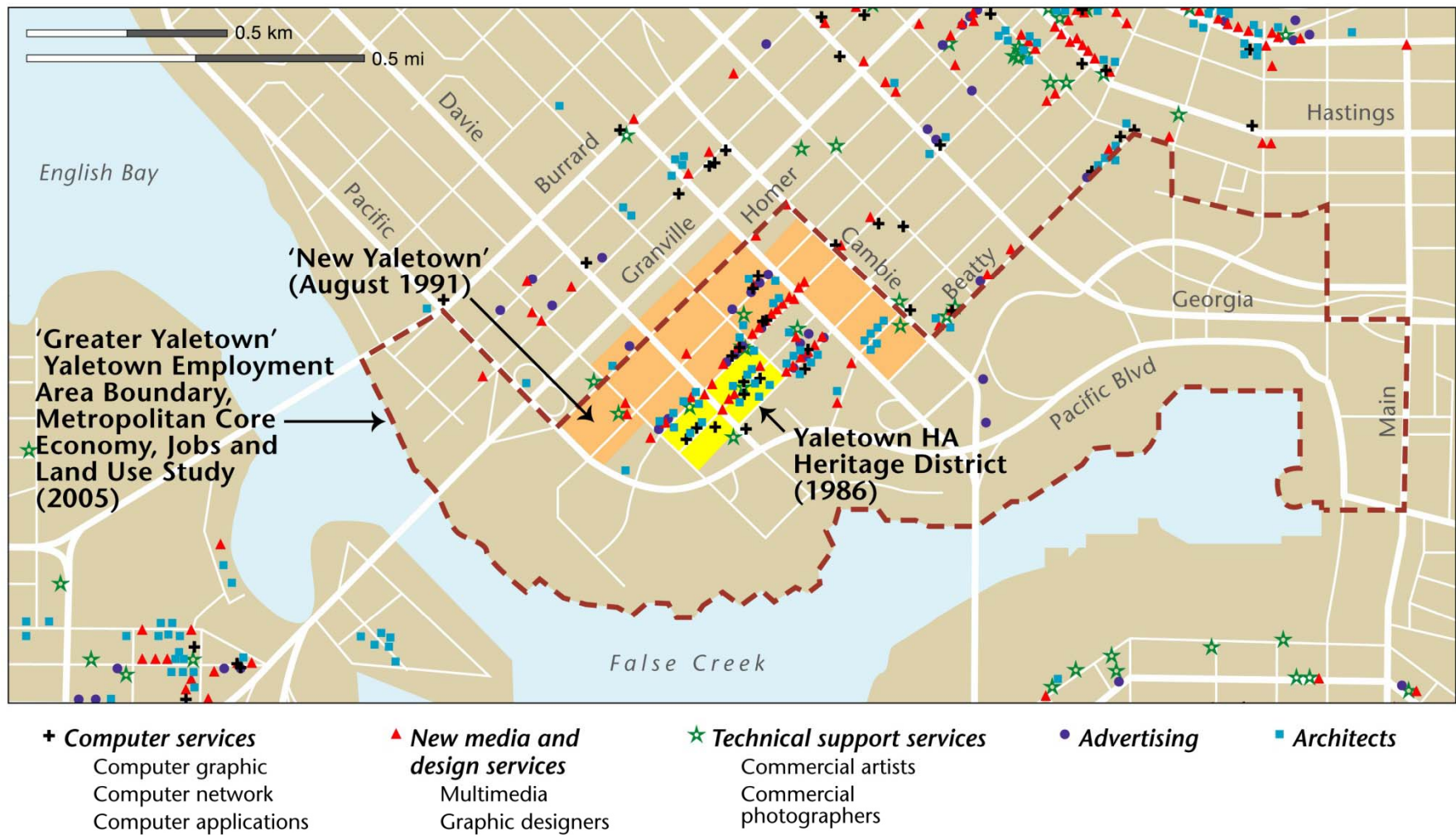


The Radical log cabin: “You have to live that world before you create it.”



## Yaletown: Vancouver's New Economy 'epicentre'

- Origins as major rail terminus and warehouse district
- Decline in the postwar period
- Stages of transition and succession in the 1980s and 1990s: loft housing, artists, New Economy phase in the late 1990s
- District of high-end housing, and also zone of intensive industrial innovation, as well as high aesthetics, rich consumption amenities
- = peak land values and rents in the Vancouver central
- Cachet of Yaletown: new imageries and reterritorialization of space in the metropolis: Yaletown – New Yaletown – Greater Yaletown : formerly 6 square blocks, now 1/6<sup>th</sup> of downtown area



**Figure 46. distribution of firms, selected industries and 'reterritorialization', for Yaletown (2004)**



**Yaletown New Economy site (foreground) and Downtown South condominium district (background), Vancouver.**

## 9 Implications and theoretical issues

- Episodes of 'precarious reindustrialization' in the 'new inner city'
- Role of the inner city as signifier of larger urban change
- Inner city sites now zones of intense experimentation, innovation, restructuring, rather than 'durable ensembles of industrial production' in the old industrial city: 'churn' of enterprises rather than stability
- Clustering versus extended production networks for creative industries: globalization and its impacts
- Co-location of industries, amenity and new housing: complements, conflicts and tensions
- Prospects for theoretical synthesis: industrial firms *versus* the social reconstruction of the urban core (London, Toronto, Vancouver, San Francisco, and other cities): the Chicago School meets 'industrial urbanism'?