

Virtual Geographies

Virtual Geographies explores the possibilities and the dangers brought about by the revolution in communication technologies. Outlining how these technologies are being used to produce new geographies and new types of space, this book de-mystifies the hype over 'cyberspace' and its consequences, and reveals how new communication technologies can open up whole new vistas.

Contributors drawn from a wide range of disciplines, including geography, sociology, English and philosophy, investigate how particular visions of cyberspace have been constructed and articulated, exploring the influence of literature, gender, how the experience of online interaction is expressed and of the interest groups or rhetoric that shape many developments. As scepticism of the consequences of cyberspace emerges, the contributors critically assess the status of virtual environments and geographies, how they interact with everyday spaces, and how they can reshape how we think and write about the world.

Mike Crang is a lecturer in Geography, Durham University; **Phil Crang** is a lecturer in Geography, University College London and **Jon May** is a lecturer in Human Geography, University of Sussex.

Sussex Studies in Culture and Communication

Series Editors: Roger Silverstone, London School of Economics,
Craig Clunas, University of Sussex and Jane Cowan, University of
Sussex

Books in this series express Sussex's unique commitment to interdisciplinary work at the cutting edge of cultural and communication studies. Transcending the interface between the social and the human sciences, the series explores some of the key themes that define the particular character of life, and the representation of life, at the end of one millennium and the beginning of the next.

Our relationships to each other, to our bodies and to our technologies are changing. New concepts are required, new evidence is needed to advance our understanding of these changes. The boundaries between disciplines need to be challenged. Through monographs and edited collections the series will explore new ways of thinking about communication, performance, identities and the continual refashioning of meanings, messages, and images in space and time.

Virtual Geographies

Bodies, space and relations

Edited by
Mike Crang, Phil Crang and Jon May



London and New York

First published 1999
by Routledge
11 New Fetter Lane, London EC4P 4EE

Simultaneously published in the USA and Canada
by Routledge
29 West 35th Street, New York, NY 10001

© 1999 Mike Crang, Phil Crang and Jon May for the collection;
individual chapters, the contributors

Typeset in Garamond 3 by Keystroke, Jacaranda Lodge, Wolverhampton
Printed and bound in Great Britain by T.J. International Ltd, Padstow, Cornwall

All rights reserved. No part of this book may be reprinted or
reproduced or utilised in any form or by any electronic,
mechanical, or other means, now known or hereafter
invented, including photocopying and recording, or in any
information storage or retrieval system, without permission in
writing from the publishers.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloguing in Publication Data

Virtual geographies : bodies, space & relations / [edited by] Mike
Crang, Phil Crang & Jon May.

p. cm.

1. Computer networks—Psychological aspects. 2. Computer
networks—Social aspects. 3. Virtual reality—Psychological
aspects. 4. Virtual reality—Social aspects. I. Crang, Mike.

II. Crang, Phil. III. May, Jon. IV. Series.

ZA4375.V57 1999

303.48'33—dc21 98-30450

ISBN 0-415-16827-9 (hbk)

ISBN 0-415-16828-7 (pbk)



1 A 390014

Contents

<i>List of illustrations</i>	vii
<i>List of contributors</i>	viii
<i>Acknowledgements</i>	xi

1 Introduction	1
MIKE CRANG, PHIL CRANG AND JON MAY	

PART I	
Embedding the virtual	21

2 Toward the light 'within': optical technologies, spatial metaphors and changing subjectivities	23
KEN HILLIS	

3 The telephone: its social shaping and public negotiation in late nineteenth- and early twentieth-century London	44
JEREMY STEIN	

4 Consumers or workers?: restructuring telecommunications in Aotearoa/New Zealand	63
WENDY LARNER	

5 Transnationalism, technoscience and difference: the analysis of material-semiotic practices	79
LAURA CHERNAIK	

6 The convergence of virtual and actual in the Global Matrix: artificial life, geo-economics and psychogeography	92
OTTO IMKEN	

PART II

Cyberscapes 107

- 7 From city space to cyberspace 109
JENNIFER S. LIGHT

- 8 Geographies of surveillant simulation 131
STEPHEN GRAHAM

- 9 Rural telematics: The Information Society and rural development 149
CHRISTOPHER RAY AND HILARY TALBOT

- 10 Internauts and guerrilleros: the Zapatista rebellion in Chiapas, Mexico and its extension into cyberspace 164
OLIVER FROEHLING

- 11 Gender and the landscapes of computing in an Internet café 178
NINA WAKEFORD

PART III

Thinking and writing the virtual 203

- 12 The virtual realities of technology and fiction: reading William Gibson's cyberspace 205
JAMES KNEALE

- 13 On boundfulness: the space of hypertext bodies 222
MICHAEL JOYCE

- X 14 Unthinkable complexity? Cyberspace otherwise 244
NICK BINGHAM

- 15 Virtual worlds: simulation, suppletion, s(ed)uction and simulacra 261
MARCUS A. DOEL AND DAVID B. CLARKE

References 284

Index 315

Illustrations

Figures

- 9.1 Initial relationships of actors and identities 157
9.2 Realignments of actors 161
11.1 NetCafé's location within three landscapes of computing 181

Plate

- 3.1 The networked city: constructing an underground subway for the Post Office's London Telephone Service, 1901 59

7 From city space to cyberspace

Jennifer S. Light

Legend has it that Senator Albert Gore Jr conceived the notion of the 'information superhighway', an infrastructure system analogous to the physical highways his father, Senator Albert Gore Sr, helped to create in the 1950s. While at first many suspicious commentators questioned the superhigh-way analogy, these high-speed communications networks are now often portrayed like the physical highways of the mid-twentieth century, tearing holes through communities. Such portrayals of media and cities share one overarching theme. It is a consistently pessimistic vision of how the rapidly growing use of information technologies will further exacerbate a decline of civic life and community. This perspective views public life in decline as accelerated by a culture of simulation. Physical spaces are replaced by digital ones – first television and film and now the Internet.¹

In this essay, I explore and ultimately question such grim portraits of a bleak future. The essay has three sections. The first examines several arguments about the decline of civic public life – that there is a decline in public space, that urban environments are increasingly commodified, and that architectural authenticity is in decline. A concern with simulations of urbanity emerges as a central theme. The second section introduces recent suggestions that new electronic technologies must invariably have negative effects on public life and community. This section notes remarkable similarities between arguments made by scholars who focus on architectural changes in cities as an explanation for declining civic and community engagement, and more recent arguments by cyberpessimists who anticipate developments in communication technologies as precipitating a similar fate. The third section draws from several examples in the history of technology, and current developments in cyberspace, to reach a more optimistic conclusion. While no one can predict the full range of implications of the Internet, it is nevertheless clear that arguments about its relationship to cultural 'decline' are based on questionable assumptions. This essay presents a more optimistic view – that the Internet presents exciting opportunities to revitalise civic engagement in new ways.

Narratives of decline

Why do they build special Hollywood towns? One hardly knows where the real city stops and the fantasy city begins. Did I not see a church yesterday and believe it belonged to a studio – only to find out it was a real church? What is real here and what is unreal? Do people live in Los Angeles or are they only playing at life?²

(Moeschin 1931: 98)

A real city is full of life, with ever-changing moods and patterns: the morning mood, the bustling day, the softness of evening and the mysteries of night, the city on workdays so different from the city on Sundays and holidays. In contrast are America's 'downtown' areas, those part-time ghost towns, spawned by one-sided and one-track development of many of our city cores, which are busy eight hours a day on weekdays and deadly silent and unpopulated in the evening, during the night, on Saturdays and Sundays.

(Gruen 1964: 27)

Something unusual is happening today in the relation between the real and the imaginary, reality and its representations.

(Soja 1996: 242)

Three comments, from three observers of urban life, spanning three generations. From the 1930s, to the 1960s, to the 1990s the names change but the theme remains constant. The authenticity of American cities is in decline. In recent decades, a rich and textured literature has pressed this theme (Gruen 1957; Keyes 1973; Oldenburg 1989; Whyte 1988; Hiss 1990; Sorkin 1992b; Beauregard 1993). Much of it focuses on the decline of informal public life and community, both in cities and small towns. Observers link this loss to eroding concepts of civic space, to postwar suburbanisation, to inner city crime, and to the phenomenal growth of privatised public spaces including malls, festival marketplaces, common-interest developments (CIDs), business-improvement districts (BIDs) and gated communities (Deutsche 1996; Goss 1996; Sorkin 1992; McKenzie 1994; Huxtable 1997). Taken together, these narratives portray a bleak outlook for vibrant civic life, and for any sense of urban community.³

Charges about the decline of cities, popular both on the left and right of the political spectrum, are linked both to the physical realities of cities and to the imagined cities that represent the public sphere. In this formulation, 'public space' represents both physical public space and the idea of democracy. To a number of urban theorists, parks, streets and squares are physical embodiments of the principles of democracy and community. Changes to the physical fabric of a city thus throw these principles into question. A continuing erosion of the public sphere goes hand in hand with the privatisation of city streets and other 'public' spaces. Specifically, the physical artifacts representing the idea of a public sphere for democratic debate are

pushed aside and replaced by 'simulations'.⁴ The common theme for these writers is a critique of the illusion that these spaces are heralded as revitalising public life when in fact they are privatised, exclusionary spaces. As the number of such simulations grows, they are described as signalling not only a loss of authenticity, but also a loss of 'reality'.

This essay examines three specific narratives in depth. The three are worth examining because they represent perspectives about what has gone wrong with cities, and what can be done to repair the damage. I bear in mind the work of Robert Beauregard, who:

assumes the discourse on urban decline to be more than the objective reporting of an uncontested reality and pursues [instead] an interpretation . . . that considers how the discourse functions ideologically to shape our attention, provide reasons for how we should act in response, and convey a comprehensible, compelling, and reassuring story of the fate of the twentieth-century city in the United States.

(1993: xi)

In examining these narratives I want to show that, just as there has never in fact been a simple and open public space, neither are those other motifs evident in such narratives entirely new. Rather, concerns over both the commodification and increasing inauthenticity of architecture, and city life more generally, have a long history. Together with a more nuanced account of the changing nature of public space, such a history leads to a rather different interpretation of recent trends.

Streets and the privatisation of space

Begin with the city street, as described by Boddy:

Over the past decade, new extensions to the city have appeared in downtowns across the continent. In cities as various as Minneapolis, Dallas, Montreal, and Charlotte, raised pedestrian bridges connect dispersed new towers into a linked system; mazes of tunnels lead from public transit to workplace without recourse to conventional streets; people-mover transit systems glide above the scuffling passions of streetbound cities. Grafted on to the living tissue of existing downtowns, these new urban prosthetics seem benign at first, artificial arms and plastic tubes needed to maintain essential civic functions. Promoted as devices to beat the environmental extremes of heat, cold, or humidity that make conventional streets unbearable, they seem mere tools, value-free extensions of the existing urban realm.

They are anything but that. These pedestrian routes and their attached towers, shopping centres, food fairs and cultural complexes provide a

filtered version of the experience of cities, a simulation of urbanity. By eliminating the most fundamental of urban activities – people walking along streets – the new pedestrian systems underground and overhead are changing the nature of the North American city.

(Boddy 1992: 124)

Boddy contrasts exclusionary skyways and underground streets to regular city streets. He asserts these privatised alternatives to traditional downtown streets provide a thoroughly inadequate substitute. Skyways are mere 'simulations of urbanity'.⁵ Boddy argues that downtown streets are emblematic of public space where different sectors of society can mix and mingle. 'Their replacement by the sealed realm overhead and underground has enormous implications for all aspects of political life' (Boddy 1992: 125). Similarly, Ray Oldenburg, lamenting the course of American urban development, writes that 'the grass roots of our democracy are correspondingly weaker than in the past, and our individual lives are not as rich' (Oldenburg 1989: xii). Framing new streetscapes as inauthentic is a position adopted to distinguish them from more real environments that existed in the past.

Boddy's focus is on disruptions and dislocations caused by new urban skyways. Yet his vision of the street is itself a simulation, an ideal. For example, through the nineteenth and twentieth centuries, cities were seen not as positive spaces, but often as in decline – beset with festering problems of dirt, disease and sanitation (Beauregard 1993; Griscom 1845; Wright 1980). Both Boddy and Oldenburg suggest a lost wholeness of civic interconnection. Yet this narrative of wholeness is contradicted by urban studies focusing on cities as sites of social atomisation and danger (Robins 1995; Lofland 1973). Boddy, Sorkin and other authors emphasise exclusions from the 'theme park city', but we should not forget how exclusions proliferated in past city forms – often based on race, class, and gender (Lofland 1973; Wilson 1995; Morford 1867).

Indeed, narratives of decline can benefit from other perspectives. For example, in *La Tribune* of 18 October 1868, Emile Zola described the streets of Paris, 'I know that M. Haussmann does not like *les fêtes populaires*. He has banned almost all those that took place in the old days in the recently annexed districts; he is pitiless in his campaign against hawkers and peddlers. In his dreams, he must see Paris as a gigantic checkerboard, possessed of a geometrical symmetry' (Clark 1985: 280 n15). Just because streets were ostensibly public did not mean everyone was welcome there.⁶ In America, the streetcorner soda shop, fondly described in Ray Oldenburg's *The Great Good Place* (1989), was for a long time an all-male establishment (Smith 1992: 360).

Today as well – outside the simulated streets Boddy describes – such exclusions remain, from the mostly white centres of cities like historic Charleston, South Carolina, surrounded by rings of African-American neighbourhoods, to streets in many American cities where few women feel

safe to stroll. This fuller picture points to a central simplification in the narrative of the decline of public space and its replacement by privatisation: the drawing of black and white opposition between privatised spaces and the abstract ideal of a public space open to all (Deutsche 1996; Mitchell 1995).

Proposals have been offered to counteract a perceived decline in public life. Supporters of the New Urbanism, such as Andres Duany and Elizabeth Plater-Zyberk, have designed new towns such as Seaside, Florida, categorised as a TND – traditional neighbourhood design, with idealised streetscapes and housing designs of a bygone era (Al-Hindi and Staddon 1997). In a similar spirit, the Disney Corporation built Celebration, a planned Florida town which opened in late 1996. Ironically, such planned communities – built in the spirit of reviving community in physical space – are precisely those privatised public spaces critiqued by Sorkin and fellow theorists such as Trevor Boddy, Mike Davis, and Evan McKenzie (Davis 1992; Boddy 1992; McKenzie 1994; Flanagan 1996). Equating open spaces with the democratic public sphere is a leap of faith, too easily made (Mitchell 1995). While these places may offer human-scaled planning, the ownership of land by a single developer, the private sector's assumption of public services, the rise of homeowner associations and residential private government, and private security forces do not promise a public sphere. In Seaside:

The town has posted signs discouraging vehicular intruders, reminding them that the streets are private property. Fear of vandalism has prompted owners to suggest the use of street entry-gates and has led the development corporation to hire a night security guard.

(Audirac and Shermeyen 1994: 168)

Some have gone so far as to ban political signs altogether (McKenzie 1994).⁷

Don Mitchell has addressed the contested literal and metaphorical meanings of 'public space'. In one vision, public space is a physical manifestation of the public sphere – a politicised space for different voices to come together to constitute 'the public'. In another vision, public space is an ordered, safe environment where people can see and be seen – a courtyard, a city park, a beachside pier. While Boddy envisions streets as public spaces in the first meaning, the streets he describes are examples of the second. For similar reasons, communities designed in the spirit of the New Urbanism have come under scholarly fire (Al Hindi and Staddon 1997; McKenzie 1994). These disagreements are not unlike the different visions that led to conflict over the uses of People's Park as described by Don Mitchell (Mitchell 1995).⁸

Shopping malls and the commodification of space

A second theme of urban decline points to the commodification of space. Shopping malls are featured prominently in contemporary criticism. They have come to symbolise inauthenticity, simulation, homogeneity,

consumption and surveillance. Margaret Crawford describes the West Edmonton Mall: 'Confusion proliferates at every level; past and future collapse meaninglessly into the present; barriers between real and fake, near and far, dissolve as history, nature, technology, are indifferently processed by the mall's fantasy machine' (Crawford 1992: 4). In this formulation, malls emblemise the 'culture of consumption'. Their interiors simulate the shopfronts and squares of a pedestrian town – yet their focus is profit per square foot. In a related development, main streets are themselves purchased by developers and turned into outdoor malls.⁹ Sites of politics are thus replaced by sites of consumption that offer little opportunity for politics.

While some authors have critiqued malls and the ways space is commodified and depoliticised as a uniquely contemporary (and largely North American) phenomenon (Huxtable 1997), concerns about the commodification of space are in fact much older. In nineteenth-century Paris, for example, changes to the urban fabric made working-class protests more difficult while they increased the circulation of goods through the city and Crawford recognises nineteenth-century Paris, and in particular its department stores, as one analogue to shopping malls. Indeed, her description of the West Edmonton Mall recalls characterisations of nineteenth-century Paris where by the 1860s, newspapers routinely used the words 'parade, phantasmagoria, dream, dumbshow, mirage and masquerade' to describe the city (Clark 1985: 66). While Crawford draws upon the nineteenth century to offer an engaging history of consumption and the Paris department stores, she does not comment on the parallel between climate-controlled malls, which simulate both nature and city spaces, and the many other artificial environments of nineteenth-century Paris. All-weather enclosed exteriors and virtual travel experiences have been around for some time, from arcades to wintergardens to the Expositions Universelles (Friedberg 1993). Like the Mall of America with its aim to encapsulate the entire world within its walls, the nineteenth-century Expositions Universelles did the same. Indeed, Anne Friedburg and Vanessa Schwartz have contested the positions of Jean Baudrillard, Umberto Eco and Fredric Jameson who assert that hyperreality is a postmodern American cultural form (Schwartz 1994; Friedberg 1993). They relate hyperreality to transformations in Paris under Haussmann and Napoleon III. For example, Victor Hugo called this Paris a 'copy'; Benjamin an 'artificial city' (Hugo 1963 (1862): 508; Buck-Morss 1989: 90).

As Crawford suggests, not only did architectural and planning changes increase the circulation of goods, but the standardisation of prices turned shopping into an activity where looking replaced the need to buy. Her description stops short of suggesting how streets and spaces of the city were commodified. Yet one observer described the city itself as a department store, 'The crowd is the veil through which the familiar city lures the *flâneur* like a phantasmagoria. In it the city is now a landscape, now a room. Both, then, constitute the department store that puts even *flânerie* to use for commodity circulation' (Benjamin 1978: 156). In Benjamin's formulation, the crowd and

the city were commodified as they became part of the spectacle enlisted to sell merchandise. The city became a department store, with *flâneurs* part of the crowd luring consumers inside.

One might go so far as to say that Paris, like American festival marketplaces today, became a commodity that was itself visually consumed. In the months before the 1867 Exposition Universelle, which brought millions of tourists to Paris, concerns for the appearance of Paris increased. An American visitor to Paris in 1867 described how 'superficially, under the Emperor's command, Paris washed its face and put on its Sunday raiment, very early in the event . . . the dust commanded to lie still, and not offend the eyes and nostrils; the trees to leaf (not *leave*) at their very earliest' (Morford 1867: 40). Benjamin has described how in this Paris, streets were like works of art. This representation ranged from the perspectival views they offered, to the fact that 'streets, before their completion, were draped in canvas and unveiled like monuments' (Benjamin 1978: 159). Paris itself became an object to be visually consumed and collected; a later Exposition was the birthplace of the picture postcard that advertised the city.

The argument that malls are the ruin of democracy – that they are essentially commercial spaces unsuccessfully simulating public spaces – is in principle compelling. For example, Frieden and Sagalyn summarise states' different legal rulings on what is and is not permitted in shopping malls (Frieden and Sagalyn 1989). Yet the argument is weakened because it ignores other versions of the past in which many of the sites of 'public life' were in fact commercial spaces – including, for example, department stores and cafes. Further, it assumes that citizens have few if any alternatives to shopping malls (Gregson 1995).

This critique of malls also misses some alternative interpretations. Crawford's description views malls as places of consumer domination.¹⁰ Yet this position on 'the mall's fantasy machine' is architecturally determinist, viewing consumers as passive rather than active and even imaginative users of space and products. Crawford did not interview shoppers, but rather looked at how the mall trade categorises them. This methodology makes it very difficult to find creative uses of mallspace. Other scholars have tracked mall users differently, finding they are not duped into consumption, but rather that they use spaces within malls, without buying, for other purposes – for example to socialise or to keep cool on a warm day (Fiske 1989; Gregson 1995). Bernard Frieden and Lynne Sagalyn suggest much criticism of malls is too academic and elitist, that it misunderstands 'suburban folks' and overlooks the communal function of shopping malls (Frieden and Sagalyn 1989: 72). New methodologies such as focus groups reveal how what happens in seemingly homogeneous spaces like malls is actually quite complex (Jackson and Holbrook 1996).¹¹ What is called 'the mall' is far more differentiated than the literature suggests. While indeed there are examples of a few developers who have numerous malls to their credit, not all malls are alike – and this is largely due to the ways people bring themselves into the

shopping experience (Holbrook and Jackson 1995; De Certeau 1984; Francaviglia 1996; Gregson 1995).

Inauthentic architectures and simulated history

A third theme of urban decline criticises contemporary architectural styles as inauthentic:

This new realm is a city of simulations, television city, the city as theme park. This is nowhere more visible than in its architecture, in buildings that rely for their authority on images drawn from history, from a spuriously appropriated past that substitutes for a more exigent and examined present.

(Sorkin 1992b: xiv)

This frequent critique of 'postmodern' architecture is often directed at shopping malls and commercial architectures, with their pastiche of styles from different historical periods and geographical contexts. As Umberto Eco writes:

The Wall Street area in New York is composed of skyscrapers, neo-Gothic cathedrals, neoclassical Parthenons, and primary cubelike structures. Its builders were no less daring than the Hearsts and the Ringlings, and you can also find here a Palazzo Strozzi, property of the Federal Reserve Bank of New York, complete with rustication and all. Built in 1924 of 'Indiana limestone and Ohio sandstone,' it ceases its Renaissance imitation at the third floor, rightly, and continues with eight more stories of its own invention, then displays Guelph battlements, then continues as a skyscraper. But there is nothing to object to here, because lower Manhattan is a masterpiece of living architecture, crooked like the lower line of Cowboy Kate's teeth; skyscrapers and Gothic cathedral compose what has been called a jam session in stone, certainly the greatest in the history of mankind. Here, moreover, the Gothic and the neoclassical do not seem the effect of cold reasoning; they illustrate the revivalist awareness of the period when they were built, and so they aren't fakes, at least no more than the Madeleine is, in Paris, and they are not incredible, any more than the Victor Emmanuel monument is, in Rome.

(1986b (1975): 28)

Eco contrasts a reverential review of New York revivalist architecture with a derisory account of falsehoods in more recent American architectural attempts to revive the past. He differentiates between nineteenth-century pastiche and contemporary postmodern style, between European cities and American ones. In both cases, he argues, the former is more authentic.

Yet do contemporary, glass-covered mall atria differ so much from nineteenth-century railway stations where 'steam engines and the machines of

mass production were invariably housed in structures that looked like botched versions of Greek temples or medieval cathedrals' (Relph 1987: 26–27)? Whether Rome's borrowings from Egypt and Greece, Romanesque and Renaissance borrowings of classical architectural models, or the neo-Gothic and Orientalist architectures of the nineteenth century, a long history exists of looking to the past and to other geographic areas for architectural authenticity. Mall developers' adaptation of architecture to connote elegance is perhaps not so different from nineteenth-century adaptations of gothic styles to inspire museums as cathedrals of learning (Lenoir and Ross 1996). Indeed, critics of contemporary commercial architecture might examine the work of Edward Relph, who writes that 'By 1880 almost every sub-style of architecture had been revived, modified, and combined with all the others' (Relph 1987: 26–27).

Nineteenth-century architectural theorists, such as Eugène Emmanuel Viollet-le-Duc and John Ruskin, concerned with preservation and restoration, also debated architectural imitation versus originality. Simulated architectures were evident in Victorian Britain where the Cambridge Camden Society practised a kind of restoration which 'could involve comprehensive demolition and rebuilding to a historically speculative design', since their 'mission in restoration was to recover the "original" appearance of a building whether from existing evidence or from supposition' (Chitty 1995: 107).¹² In some schools of Victorian thought, 'an architecturally correct copy of an ancient architectural feature was considered to be as good as, or even better than, the real thing' (Chitty 1995: 107). In a different twist on the decline of authenticity, architect Albert Simons critiqued architectural generalities which defied local styles. Expressing concern about architectural homogenisation, for example, in his 1932 comments on a fence in Charleston, South Carolina, Simons noted that: 'I do not particularly like their idea of cribbing a Long Island Fence from *House and Garden*. . . . *House and Garden* and other publications of the same sort have done more to reduce American taste to a monotonous standard with a rank new England flavor than anything else I know of' (Datel 1990: 210).

Criticisms of a decline in architectural authenticity seem to romanticise the past in making a distinction between the revivals of nineteenth-century architecture and those of today. They draw the kind of high art/low art distinction that has been the subject of much criticism from students of vernacular architecture (Rubin 1979). Eco's commentary differs from the critiques of inauthenticity focusing on urban forms which simulate public or democratic space. His argument is ostensibly about reality versus virtuality – or in Eco's blunt terminology, 'fakes'. Yet it is equally concerned about what reality should be – an unmediated, non-commercial experience. The debate about reality versus virtuality thus seems to function as a language for other arguments that remain unarticulated.

In some critiques of inauthentic practices, then, what is counterposed as more authentic represents a distinct class bias. Tying these architectures to a

widespread sense of urban decline is a set of assumptions about what makes urban culture great (Rubin 1979). As Barbara Rubin points out:

The diversity of an urban population, or the cosmopolitan range of goods and services exchanged, is rarely taken as an index of urban success by students of urban culture. Instead, urban success is found in a catalogue of a city's noncommercial, nonindustrial institutions: a philharmonic orchestra, art museums, parks, religions and historical shrines, theaters, fine-arts architecture, and unified, monumentalising plans.

(1979: 341)

These assumptions about what constitutes urban success are distinctly middle-class and upper middle-class, practically guaranteeing findings of failure in the architectures of commerce. While some commentators critique commercial architectures for zoning out 'the public', the spaces are nevertheless being used by a wide range of people. Rubin dates concern about consumption implying culture in decline to the Chicago Exposition, where a walled-off area was set aside for commercial activities: 'The emerging ideology of urban aesthetics could not admit commerce, since by definition commerce could not be aesthetic' (Rubin 1979: 345). This line of attack continues in critiques of festival marketplaces, which discuss how at places like Faneuil Hall Marketplace or South Street Seaport, historic buildings are enlisted to sell merchandise (Huxtable 1997; Boyer 1992). Architectural revival is thus valued differently depending upon its audience.

Here is urban renewal with a sinister twist, an architecture of deception which, in its happy-face familiarity, constantly distances itself from the most fundamental realities.

(Sorkin 1992b: xiv)

The fundamental rationale for each critique – of skyways, malls, and certain architectural combinations – is that 'traditional' architectural forms are somehow more real and true. As Sorkin writes in the introduction to his collection:

'City air makes people free' goes a medieval maxim.¹³ The cautionary essays collected here describe an ill wind blowing through our cities, an atmosphere that has the potential to irretrievably alter the character of cities as the preeminent sites of democracy and pleasure. The familiar sites of traditional cities, the streets and squares, courtyards and parks, are our great scenes of the civic, visible and accessible, our binding agents. By describing the alternative, this book pleads for a return to a more authentic urbanity, a city based on physical proximity and free movement and a sense that the city is our best expression of a desire for collectivity. As spatiality ebbs, so does intimacy. The privatized city of bits is a lie,

simulating its connections, obliterating the power of its citizens either to act alone or to act together . . . In the 'public' spaces of the theme park or the shopping mall, speech itself is restricted: there are no demonstrations in Disneyland. The effort to reclaim the city is the struggle of Democracy itself.

(Sorkin 1992b: xv)

This statement sets up a black and white distinction between the unreality of privatised Disney and the reality of the outside world. Yet there *are* demonstrations in Disneyland, and there were demonstrations long before Sorkin's article went to press. The *San Francisco Foghorn* described 'several strikes that have plagued the park including one in 1984 that lasted for 22 days' (<http://foghorn.usfca.edu/archives/fall.95/f09/entertainment/mouse.html>). The notion of Disneyland as a space beyond the potential conflicts of public space has been exaggerated.

In summary, the 'decline and fall' narrative suggests that new strategies for urban revitalisation are not resulting in improvements, and that true democracy can only be found through more traditional architectural forms. The criticisms of new forms for zoning out some of the public are partially justified, since malls and skyways do not, in fact, equally serve all citizens. Yet we must ask whether a nostalgia for traditional urban forms is perhaps misplaced, since in their time these stood for a far more limited definition of 'the public'. Such nostalgia paired with critiques of decline can be seen as continuing a trend to find authenticity in the architectural past. Yet one wonders, when both conservative and liberal writers turn backward to affirm a similar ideal, how different are the versions of the past they keep in mind?

Linking city space to cyberspace

From Adorno to the Lynds to Habermas to Oldenburg to Sorkin, writers characterise the rise of home-delivery media as a central factor in the decline of cities as civic spaces (Adorno 1990 (1934); Lynd and Lynd 1956; Habermas 1992; Oldenburg 1989; Putnam 1995). For example, Robert and Helen Lynd's classic study of Middletown found that with the use of telephones, visiting decreased (Lynd and Lynd 1956). Ray Oldenburg and Neil Postman tie telephones, televisions, VCRs and other home entertainment to the closing of neighbourhood establishments (Postman 1992; Oldenburg 1989). Such observations about American culture are extensions of the critique of American individualism levelled by Alexis de Tocqueville, who wrote that American individualism might be the downfall of public life. 'Individualism is a calm and considered feeling which disposes each citizen to isolate himself from the mass of his fellows and withdraw into the circle of family and friends; with this little society formed to his taste, he gladly leaves the greater society to look after itself' (Bellah 1985: 37). While he admired Americans for their commitment to participation in public life, de Tocqueville

simultaneously felt that Americans' predilection for individual freedom could result in isolation and thereby interfere with the future of their freedom. Now, computer technologies are coming under fire as time spent at the computer translates into time not spent on the street, removing much-needed attention from city problems (Zimmerman 1986). Dolores Hayden has described this disappearing community and public life as part of the uniquely American drive to create an ideal home, rather than an ideal city (Hayden 1984).¹⁴

Like cyberpunk stories of escape into virtuality, academic narratives of the decline of cities and of public life tell of a decline of reality, and of its replacement by simulations. Linked to commentaries on the rise of virtual spaces, then, are criticisms of the growing hyperreality of physical spaces – critiques that sometimes encompass entire cities. Criticisms of hyperreality have generally focused on a few cities and city types. They include Los Angeles (Soja 1996; Davis 1992), Las Vegas (Eco 1986b (1975); Kunstler 1993) and planned communities such as Disney's Celebration, Florida (McKenzie 1994).¹⁵ For example, Umberto Eco has advanced the notion that Americans prefer fakes, reconstructions and simulations, a practice somehow tied to a need to fabricate history in a historyless country (Eco 1986b (1975)). As he put it, if Europe's cities have amusement parks, in America entire cities are entertainment. Describing California and Florida as 'artificial regions' (Eco 1986b (1975): 26) he writes, 'The fact is that the United States is filled with cities that imitate a city' (Eco 1986b (1975): 40). Soja offers a similar report on Los Angeles: 'The simpler worlds of the artificial theme park are no longer the only places where the disappearance of the real is revealingly concealed' (Soja 1996: 278).

Not only are urban forms described as sites of simulation standing on the spaces of older more authentic cities, but commentators describe the decline of cities as a 'fall' into mediation, drawing analogies between cities and media. From Jean Baudrillard's remark that the shopping mall resembles 'a giant montage factory' (Baudrillard 1995a (1981): 76), to Michael Sorkin's observation that 'the structure of this city is a lot like television' (Sorkin 1992b: xi), to Edward Soja's comments on 'real-reel life' (Soja 1996: 238) the mediated city is a common motif. This motif criticises the effects of media on cities, suggesting that 'television harbingers a totally recast public realm, a city remade in the image of TV' (Sorkin 1992a: 71). To update such an academic narrative for the information age, Christine Boyer has drawn 'an analogy between the computer matrix and the space of the city' (Boyer 1996: 9), a parallel popularised in cyberpunk science fiction (Gibson 1984; Stephenson 1992).

A common theme in these portrayals is not only that cities have become more physically dispersed in recent decades (a fact few would dispute), but that simultaneously they are becoming dematerialised in people's imaginations. As Sorkin puts it, 'recent years have seen the emergence of a wholly new kind of city, a city without a place attached to it' (Sorkin 1992b: xi).

Obviously a city needs a physical place; Sorkin's point is that cities today have little connection to their local geographies.

Like Eco and Soja, James Kunstler deems several American cities Capitals of Unreality: 'Atlantic City, unlike Disney World, was once a genuine town [from the 1880s to 1929], but has evolved unhappily into a place of the most extravagant unreality' (Kunstler 1993: 217). In his commentary on the most 'virtual' American city of the late twentieth century, Baudrillard echoes Eco's stance to make a similar point about Los Angeles. Baudrillard describes how Disneyland, with its Main Street USA, allows Americans to pretend that the rest of our landscape is real:

Disneyland exists in order to hide that it is the 'real' country, all of 'real' America that *is* Disneyland . . . Disneyland is presented as imaginary in order to make us believe that the rest is real, whereas all of Los Angeles and the America that surrounds it are no longer real, but belong to the hyperreal order and to the order of simulation.

(Baudrillard 1995a (1981): 12)

With such an assumption behind many commentaries, popular comparisons between dematerialised cities and cyberspaces as mediated places without physical structure begin to make some sense.¹⁶ This is the charge of works like Boyer's *Cybercities* (1996) and Mark Slouka's *War of the Worlds: Cyberspace and the High-Tech Assault on Reality* (1996). With cities ever more like media and public spaces disappearing, these writers foresee a circular pattern. People's withdrawal will lead to further disintegration of the physical environment, which will increase the pull of virtual worlds. Characterising the 'invisible or disappearing city' (Boyer 1996: 19), Boyer writes:

I tend to agree with William Gibson, who decided even before writing *Neuromancer* that what was happening in the space behind the video screen was more interesting than what was happening in the space in front of it – in other words, that cyberspace pulls the user into the receding space of the electronic matrix in total withdrawal of the world.

(Boyer 1996: 11)

Boyer notes that 'the decline of reality as a serious referent' is an object of her study, and she stresses this as an issue that must be addressed (Boyer: 7). Mark Slouka extends this argument.¹⁷ In his chapter 'The Road to Unreality', Slouka criticises a:

trend so pervasive as to be almost invisible: our growing separation from reality . . . Let me state my case as simply as possible: I believe it is possible to see, in a number of technologies spawned by recent developments in the computer world, an attack on reality as human beings have always known it.

(1996: 1–4)

The emphasis here is that media are disorienting. In Sorkin's formulation, virtual reality is electronic deception and unreality – 'the electronic construction of images that are indistinguishable from the nominal realities they purport to represent' (Sorkin 1992b: 71).¹⁸ And Soja writes that:

as our ability to tell the difference between what is real and what is imagined weakens, another kind of reality – a hyperreality – flourishes and increasingly flows into everyday life . . . Baudrillard has not been alone in drawing our attention to the fact that reality is no longer what it used to be.

(1996: 239–240)

It is not only cities that are disappearing, but 'reality' – an idea here which stands in for authenticity, community, public space and an idealised non-commercial realm.

While cities have changed physically across this century – for example through the building of highways and shopping malls, and a general trend towards decentralisation – drastic changes across the past two decades are not so easily identified. Peter Larkham and Elizabeth Wilson point to how one of the tensions in thinking about cities is the challenge of stasis versus change, of conservation versus restoration (Wilson 1997; Larkham 1996). As an ideal, 'the city' is invented and reinvented, and cannot be treated as a static referent. Writing about the strengths of traditional cities therefore becomes complex because 'the city' – both its physical forms and the ways of conceptualising it – has evolved over many centuries.¹⁹ Previous commentators also mourned the passing of an authentic city. Today's critique thus ends up, ironically, locating authenticity in the past when its very conceptualisation of this 'past' is itself a simulation.²⁰

A brief history of technology

The museum took the place of concrete reality; the guidebook took the place of the museum; the criticism took the place of the picture; the written description took the place of the building, the scene in nature, the adventure, the living act. This exaggerates and caricatures the paleotechnic state of mind; but it does not essentially falsify it.

(Mumford 1934: 181)

Perceptions of any environment or technology change over time. Consider reading, sometimes held up as 'real' and 'authentic' in contrast to new electronic media (Birkerts 1994). Yet reading has been criticised as an unreality:

With the spread of literacy, literature of all grades and levels formed a semi-public world into which the unsatisfied individual might withdraw, to live a life of adventure following the travellers and explorers in their

memoirs, to live a life of dangerous action and keen observation by participating in the crimes and investigations of a Dupin or a Sherlock Holmes, or to live a life of romantic fulfillment in the love stories and erotic romances that became everyone's property from the eighteenth century onward. Most of these varieties of day-dream and private fantasy have of course existed in the past: now they become part of a gigantic collective apparatus of escape.

(Mumford 1934: 314)

From stories of Renaissance mathematical perception, to Lorraine Glass, to department stores described as panoramic culture, technological artifacts contribute to new ways of seeing (Friedberg 1993). For example, as Harold Innes writes in *The Bias of Communication*, the invention of printing was a threat to public life: 'Innes' insight was that newspapers actually created monopolies of information. The emergence of the "audience" spelled danger for public life, as it transformed people into essentially private readers and listeners' (Lyon 1994: 44).

Similarly, Oldenburg explains:

What the tavern offered long before television or newspapers was a source of news along with the opportunity to question, protest, sound out, supplement, and form opinion locally and collectively. And these active and individual forms of participation are essential to a government of the people. An efficient home-delivery media system, in contrast, tends to make shut-ins of otherwise healthy individuals; the more people receive news in isolation, the more they become susceptible to manipulation by those who control the media.

(Oldenburg 1989: 69–70)

Walter Benjamin describes how through historical changes in modes of perception, definitions of reality can change too. He explains how photography changes the way people see, from Muybridge's motion studies capturing what the eye cannot see to his lament of the loss of art's aura in an age of mechanical reproduction. Susan Sontag builds on Benjamin's ideas about perception. While acknowledging the power of photographs to closely represent the real, she calls for a more rigorous examination of the extent to which, by incorporating mechanised and mediated images and sounds into our daily experience, increasingly it is those images that constitute reality and authenticity (Sontag 1977).

So what does this all add up to? I do not doubt that new information technologies, together with many parallel social trends, both reflect and contribute to changes in people's perceptions of reality. I agree with Sorkin, Boyer, and Slouka that it is important to question what kind of biases a given technology might have for our perception. Yet to call cyberspace 'unreal' or inauthentic in comparison to so much else is deceptive. I am not suggesting

that virtual and physical environments are equivalent. The spectrum of difference between them is important (Borgmann 1995; Light 1997). Yet recognising their interaction helps us understand how virtual environments become part of everyday reality. Our lives have always been mediated: by our environment, religion, gender, class and the existing technologies of our time (Berger and Luckmann 1966). While statements such as 'something unusual is happening today in the relation between the real and the imaginary, reality and its representations' (Soja 1996: 242) may be applicable today, they also would have characterised observations of 50 and 100 years ago.²¹ The decline of cities, then, cannot be explained simply as a physical phenomenon attributed to the growth of electronic media. Rather, one might wonder whether amidst a shifting paradigm, we are witnessing an understandable, nostalgic reaction.

Reinvigorating city space

A central debate in the history of technology has focused on the question: Does technology drive history or does society shape technology? (Marx and Roe Smith 1994; MacKenzie and Wajcman 1985). The unidirectionality of this question also has come under scholarly fire (Hughes 1983). Architectural theorists face a related question: To what extent does society shape architecture or does architecture shape society? Certainly reformers have wanted to believe that architecture can inspire social change. One illustration is the New Urbanism. For example, Seaside's 'imitation of premodern, pre-automobile urban forms pivots on the notion that social relations and culture follow' (Audirac and Shermyen 1994: 165). Yet Jane Jacobs contested similar proposals by her contemporaries, writing that public spaces are only public spaces in the ideal sense when people make something of them. She describes many failed attempts to create public parks which just ended up as lonely squares of grass. Recent work has followed Jacobs in suggesting that 'Buildings do not dictate their own meanings, but change according to the ideas and actions of city dwellers' (Matthew Gallery 1996; Warren 1996).²² This mutual shaping argument is central to understanding the 'architecture' of cyberspaces, where how people use information environments is as important as how these spaces are designed. Without this perspective, we risk falling into the technological determinist trap Leo Marx calls postmodern pessimism.

What is postmodern pessimism? Relating technology to a decline in quality of life is an old argument. It is presented in works such as Thomas Carlyle's 'Signs of the Times' (1835 (1829)), and novels such as Auguste Villiers de l'Isle Adam's *L'Eve Future* (1879). It is elaborated in Lewis Mumford's *Technics and Civilisation* (1934) and Sigfried Giedion's *Mechanization Takes Command* (1948). Each of these works laments the dehumanising aspects of new technologies. Yet while compelling, these are largely determinist arguments. Seeing life as dominated by large technological systems is implicitly a

technologically determinist position (Marx 1994). As Leo Marx explains in his essay 'The Idea of "Technology" and Postmodern Pessimism' (1994), contemporary fears about the domination of life by large technological systems – he points to new electronic communications technologies – are themselves determinist:

This outlook ratifies the idea of the domination of life by large technological systems, by default if not by design. The accompanying mood varies from a sense of pleurably self-abnegating acquiescence in the inevitable to melancholy resignation or fatalism . . . In their hostility to ideologies and collective belief systems, moreover, many post-modernist thinkers relinquish all old-fashioned notions of putting the new systems into the service of a larger political vision of human possibilities. In their view, such visions are inherently dangerous, proto-totalitarian, and to be avoided at all costs. The pessimistic tenor of postmodernism follows from this inevitably diminished sense of human agency.

(Marx 1994: 257)

It is this fatalist viewpoint for the future of electronic cities that is pessimistic, perhaps excessively so. Sorkin concludes his article 'Scenes from the Electronic City' by stating 'The question is whether or not we'll have any choice' (Sorkin 1992b: 77). He thereby suggests a determinist outcome. Perhaps time will prove Sorkin right. Yet to suggest we might have no choice is to accept the technological determinist position. The Internet is in its early stages and has an enormous number of potential future directions. It would be a self-fulfilling prophecy if critics who assume the worst avoid participation in network development just at the time they could have the biggest impact.

Cyberspaces

The story of online service providers resembles the story of the American landscape, with both municipal and commercial ('public and private') services sharing responsibilities for infrastructure. Civic networks and Freenets are different from private online services. While some commercially-owned networks impose speech restrictions (Light 1996) there are also private fora on which anything goes. So many scholars and social critics have weighed in on the negative aspects of technology for cities, it is easy to overlook concrete, promising trends in the other direction.

Critics such as Mike Davis rightly attack the exclusions of electronic spaces. Cyberspace is heavily dominated by elite groups, yet often presented as if open to all; its privatised spaces presented as if they are public (Light 1996). Concerns about the commodification of space are justified, as cyberspace is increasingly home to commercial networks, commercial sites and commercial transactions. Simultaneously, cybercritics point to the decline of

place-based relations as a factor in urban decay, linking these to the rise of electronic communications. Yet to call this critique the whole story would be like looking at cities only in terms of their shopping malls, or looking only at the malls' trade literature and never examining how people actually behave there. These visions of cyberspace have not accounted for the increasing number of non-profit and grass roots organisations meeting online and in person to reinvigorate physical space. Examples of these projects abound; they even constituted the curriculum for a course and community service program at MIT (<http://alberti.mit.edu/dusp/11.401>).

Several examples illustrate the categories of cyberspace devoted to enhancing a sense of place. Combining commercial and municipal networks, there is now a proliferation of community-network information online (<http://alberti.mit.edu/arch/4.207/anneb/thesis/toc.html>). Looking at a single city offers a case study. For Chicago alone, my search was encouraging. For example, the Chicago Area Northside Neighborhood Online Network has been online since 1995 (<http://www.tezcat.com/~neccn/cpbproposal.html#partners>). It offers training and Internet access to community-based organisations throughout the city. 'Building on existing human networks in our communities, we have successfully trained residents and staff of over 60 community organizations, and built up a unique multi-racial, mixed-economic, mixed-gender pool of community users' (<http://www.tezcat.com/~neccn/cpbproposal.html#partners>). In the spirit of a community network that lets the locale direct its civic network, there will be a partnership with several other organisations. The community electronic network was initiated to overlap with already existing social networks in Chicago, organising around jobs and economic development, children, youth and family, issues of affordable housing and to offer computer access to residents.

Erie Neighborhood House, a non-profit, multi-service agency, operates the Erie Technology Center. This is:

a comprehensive computer laboratory dedicated to the computer and information literacy of West Town residents with limited English proficiency and low educational achievement. Because the Technology Center works intimately with the other educational programs at Erie Neighborhood House, it is able to serve a wide variety of ages (age 5 to 85) in the effort to integrate traditional teaching/learning methods with current technology applications. Currently the new facility consists of a computer center, Internet access and space for layout and design work.

(<http://www.tezcat.com/~neccn/cpbproposal.html#partners>)

In a similar spirit is NeighborTech, which works with Chicago's inner city neighbourhoods to help citizens become technologically literate. 'Through training classes, informational meetings and seminars, NeighborTech's Internet provider service, and our newsletter, we want to see low-income residents, not-for-profit agencies, and small businesses located in low-income

communities getting connected and getting on-line.' These include Community Computing Centers and Hot Neighborhood Computing Experts (<http://www.iit.edu/~nnet/>). How can one possibly describe this use of cyberspace as anti-urban? It is precisely the opposite.

Chicago Community Networking (http://www.cnt.org/ccic/chico_net.html) is even marketing the 'Other Chicago' online:

Geographic Chicago is intrinsically a fine place with many advantages such as abundant fresh water, a skilled work force, sociable people, diverse cultures, many transportation connections, fine colleges, beautiful churches, and great restaurants. We are proud of it. But lacking are humane, sound, democratic and fair social and economic policies. In spite of hardships, the poorer neighborhoods are filled with heroes, valiant efforts and people struggling for survival. There are interesting, entertaining, and educational grassroots places to visit in the 'other' Chicago. We invite you to see it and meet its people in cyberspace; then visit the 'Other Chicago' in the real world.

(<http://www.cs.uchicago.edu/cpsr/other-chicago/index.html>)

These are a few short examples of proactive local uses of the Internet. Each educates diverse groups of users to do more than simply log on, and attempts to redress the élitism of cyberspace. These virtual spaces, created with concerns about the physical environment, are not dissociated from place. Nor are they cyberspaces of retreat. Online relationships can be strong, and may continue offline (Rheingold 1993; Turkle 1995). These spaces are not unreal for people who use them in their work, just as Orange County, Los Angeles, and Las Vegas – capitals of unreality to urban social critics – are real for the people who live there.

I am the first to admit the disparity between much of the rhetoric of virtual communities, virtual public life and the role of these new technologies in people's everyday lives (Light 1996). Yet any blanket condemnation of the inauthenticity and dislocation of new electronic spaces seems overdone. Like reducing complex differences among cities to an oversimplified single truth about 'the city', there is a risk in similar portrayals of cyberspace.²³ As in other eras, electronic communications and other technologies have multiple, sometimes contradictory effects (Fischer 1992). Writings about a generic 'cyberspace', like writings about 'the city', are troublesome since there are differentiated cities and differentiated cyberspaces.²⁴ In addition, since the practical uses of information technologies are constantly changing, perspectives on cyberspaces are likely to evolve just as perspectives on electricity, telephones, radio, photography and computers have evolved over many decades (Sontag 1977; Marvin 1988; Douglas 1986; Fischer 1988; Ceruzzi 1991).

It is critical to broaden our understanding of what cities and cyberspaces

can be. A city stands for the disparate experiences people have in a physical space; no two people have the same experience of a single city. Similarly, people's experiences online differ, and no two people have identical experiences in the varied geography of the Internet. Just as a city does not mean one thing to all people, the 'Internet', and 'cyberspace', while singular words, are not monolithic things. Any theory that attempts to overlay a simplistic, unidirectional interpretation on interactions online is likely to find a counterexample.

The new geography of the Internet, as the various examples of community-building in Chicago illustrate, is a dynamic environment of many different places and spaces used for many different purposes. Writers of urban decline and their speculation that new technologies will accelerate this decline, become less compelling in the light of counterexamples occurring even now. Increasingly, users are harnessing technology to strengthen spatial ties within their cities. The pessimists' contributions are spunky and fun to read. Yet when they are situated in a broader debate within the history of technology and daily life, their pessimism must be balanced against an increasingly vigorous set of examples of how individuals are using cyberspaces to improve city spaces.

Acknowledgements

Thanks to Peter Buck and Nicholas King of Harvard's Department of the History of Science and to the editors for their comments. Thanks also to staff and students at the Department of Geography, University of Edinburgh, for many interesting conversations shared during the writing of this essay.

Notes

- 1 I use the term 'digital' here since virtual spaces are largely digital. Yet similar claims were made regularly about analogue simulations, such as Adorno's commentary on radio and phonograph records (Adorno 1990, (1934); Adorno 1945).
- 2 Translated and cited in Rubin (1979: 351).
- 3 In fact, the theme goes back hundreds of years as a rhetorical play in contesting a lost traditional way of life with an encroaching modernity. See Raymond Williams, *The Country and the City* (1973).
- 4 In this essay, simulation is defined in Baudrillard's sense – as a copy of something that has no original; an ideal.
- 5 Similar concerns about the privatisation of public space proliferate in architectural and geographical theory, especially in articles analysing shopping malls, theme parks and festival marketplaces (Crawford 1992; Davis 1992; Deutsche 1996; Sorkin 1992b; Goss 1996; Warren 1996).
- 6 Ann-Louise Shapiro has argued that Georges Eugène Haussmann's changes to Paris erased low-income workers from the centre of the city (Shapiro 1985). T.J. Clark has written that zoning the lower classes out was a critical part of enhancing

the spectacle for the bourgeoisie (Clark 1985). The impact of changes to Paris under Haussmann made certain activities of the working classes invisible by redistricting their areas and pushing them into suburbs, as well as subjecting street performers and caricaturists to censorship. Caricaturists like Daumier called this to public attention in their cartoons; for example he represented Napoleon III as a demolition worker. Here we find a similar concern about who is the public and for whom is the city.

- 7 For a recent critique of Seaside, see Al-Hindi and Staddon (1997).
- 8 These are, of course, not the only contested meanings of public space and the public sphere.
- 9 For further discussion see Section 3, 'Image Building and Main Street' in Francaviglia (1996).
- 10 This position is presented elsewhere, for example see Huxtable (1997: 103).
- 11 In a later article, Crawford moves in a different direction to criticise 'narratives of loss'. She points to how 'urban residents are constantly remaking public space and redefining the public sphere through their lived experience' (Crawford 1995: 4), even criticising her fellow contributors to *Variations on a Theme Park*.
- 12 In his article, Chitty discusses a range of positions on preservation and restoration.
- 13 As Dolores Hayden points out, women have not enjoyed this *droit de ville* (Hayden 1984: 210–211).
- 14 Chermayeff and Alexander write of television, radio, telephone and phonograph 'Transformed by electronics, the dwelling is no longer a refuge but an arena. It now serves as the marketplace, the forum, the stadium and school, the theater and movie house rolled into one' (Chermayeff and Alexander 1963: 95). This is not to say that the pair were against technology; at several points in their book they write of technology as a tool and the possibilities of computers in design.
- 15 That sometimes these stand in for all American cities is a problematic assumption in itself. McKenzie's book does not discuss Celebration, but it is a well-known example of the kinds of development he examines.
- 16 I suspect that like metaphors for cities (Vidler 1978), the city metaphor has influenced the kinds of project pursued in cyberspace; many are electronic analogies of physical spaces.
- 17 In Baudrillard's writing, a 'real' referent no longer exists.
- 18 Yet in another article he offers a more hopeful view of the relationship of reality and virtuality: 'The space of virtuality threatens only if it supplants the space of the physical. As supplement, as sheer augmentation, electronic means can put us in touch with fresh cohorts and global possibilities. As replacement, though, the risk is clear' (Sorkin 1993: 107).
- 19 The concept of 'the city' is also problematic since there are many different kinds of city and many different experiences of each.
- 20 Recent scholarship has called into question a previously accepted distinction between reality and virtuality (Hayles 1995; Cronon 1995; Davis 1992; Light 1997; Westwood and Williams 1997; Starr 1994). Simulations can inspire reflection on how what was previously conceptualised as real is itself a simulation. The point is that physical life and digital life are much more similar than commonly perceived. For example, older theorists such as Benjamin and Adorno looked at how external media shaped people's experience. Now theorists are pointing to a variety of internalised mediations, from race, class and gender to individual bodies (Hayles 1995). This perspective suggests no two people's view

of a single city or urban form are likely to be the same. For example, what is simulation in an American context may be perceived as authentic in other contexts. A recent *New York Times* article on the Polus Center, the first American-style shopping mall in Central Europe, describes how the developers sought to 'transplant the authentic ambience of an American mall' to Hungary (Perlez 1996). In new writings on cities the theme is that reality and virtuality are converging; cities become more virtual with concepts like 'imagined' cities and Soja's 'thirdspace' (Westwood and Williams 1997; Soja 1996). This is a slightly different formulation from the one presented by Sorkin and his contributors. They frame reality as collapsing into virtuality and disappearing altogether, such as in Margaret Crawford's chapter 'The World a Shopping Mall' which reflects on how the entire world is becoming a giant shopping mall.

- 21 A similar point can be made about preoccupations with a perceived loss of connection among city sites. Commentators write that 'What's missing in this city is not a matter of any particular building or place; it's the spaces in between, the connection that makes sense of forms' (Sorkin 1992b: xii); and 'Most important, we have lost our knowledge of how to physically connect things in our everyday world, except by car and telephone' (Kunstler 1993: 246). Similarly, when railroads and railway stations were first introduced, they seemed also to bring about a 'dislocation of the city' (De Boer 1993: 31; Schivelbusch 1986). The 'industrialisation of space', to use Schivelbusch's phrase – changed people's experience in the late nineteenth century. Now we are shifting to a new paradigm.
- 22 Umberto Eco wrote that architecture is not determinist; it oscillates between guiding you to particular behaviour, and not controlling you at all (Eco 1986a (1973)). Yet this does not seem to reconcile with his comments in *Travels in Hyperreality*, written two years earlier. For example, his discussion of Disneyland talked about the passivity of people in the Disney environment: 'An allegory of the consumer society, a place of absolute iconism, Disneyland is also a place of total passivity. Its visitors must agree to behave like its robots. Access to each attraction is regulated by a maze of metal railings which discourages any individual initiative' (Eco 1986a (1973): 48).
- 23 Malls and simulated spaces are not inherently dangerous in themselves, but in how they are tied into other aspects of life. It would be problematic if the privatised public space of a shopping mall were the sole place for people in a city or region to gather. The implications would be similar if the only online spaces were highly regulated public or private networks.
- 24 Certainly there is a proliferation of online worlds which are intended to simulate or replace the real. Yet these are not the only cyberspaces.

8 Geographies of surveillant simulation

Stephen Graham

Introduction: telematics and surveillant simulation

The history of technology demonstrates that, in the long run, interlinked changes across a range of technological systems tend to be more important than single technological innovations in facilitating social and spatial change (see, for example, Hall and Preston 1988; Beniger 1986). Thus, we might criticise the rather narrow preoccupation of much current social science work on virtual spaces, which tends to centre almost exclusively on the social construction of subjectivity in 'cyberspace' (for which read the Internet). Such a perspective, I would argue, often neglects the broader societal implications of a whole raft of current inter-linked innovations in computing and telecommunications.

In such a context, this chapter tries to connect a broad perspective on 'virtual geographies' with political-economic debates about surveillance, computerised simulation, and the socioeconomic restructuring of geographic space. My starting point is William Bogard's (1996) recent book, *The Simulation of Surveillance*. Computerised surveillance and simulation have both been subject to much debate within recent social theory and commentary (see Lyon 1994; Droege 1997). Approaches in social and cultural geography, and postmodern commentary more generally, however, have tended to separate treatment of surveillance from that of simulation. The former have usually drawn on the work of Foucault (1977) on the disciplinary and self-disciplining underpinnings of modern societies (see, for example Squires 1994; Philo 1992), and on Jeremy Bentham's famous eighteenth-century writings on his Panopticon prison design (see Hannah 1997). The latter have drawn on Baudrillard's notions of the 'postmodern' shift towards hyperreality and orders of simulacra (see Baudrillard 1983; Kellner 1994; Soja 1989). Largely separate positivist debates on simulation, meanwhile, have addressed the technical issues surrounding the computerised simulation of everything from geographical systems (see Batty 1996, 1997a; Sui 1997), to planetary landscapes, biological mechanisms, human genetic processes, and cosmological space-time (see Hall 1993).

In contrast, Bogard's work is useful because it takes an holistic perspective of the *complex interactions* between computerised surveillance and simulation.