REINVENTING THE CITY

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THE CITY IN THE 1990s: LIVABLE FOR WHOM?

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Peter Hall: Reinventing the City (Lecture 1)

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REINVENTING THE CITY

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ABSTRACT
We are entering a new era: one based on the generation, processing and exchange of information rather than of goods. The old locational rules no longer apply. What will be the future significance of the city? Will it survive the transition? And if so, in what form?

Planning is likely to play a large role, for cities will still be shaped by policies and decisions in the public sector. But the critical areas will differ from those of the past, and it is important for planners to consider these if they do not want to see the future being shaped by other agencies and powers. Three areas can be distinguished: the infrastructural base of the new information economy; the knowledge-generation base; and the quality of urban life. For planners, the first two will require a voyage into relatively uncharted areas; the third will represent more traditional territory, but even it will require considerable reinterpretation.
PREFACE

As Peter Hall is one of the leading planners and most intellectually innovative scholars of the post-war period, it is fitting that his paper initiates the publication of lectures from the Centre's 25th Anniversary series on "The City in the 1990s."

A graduate of Cambridge University, Peter Hall has taught at the University of London, the London School of Economics and the University of Reading, where he was Professor of Geography and Planning and Dean of the Faculty of Urban and Regional Studies. In 1980 he was appointed Professor of Urban and Regional Planning at the University of California, Berkeley and for a number of years thereafter held a joint trans-Atlantic appointment at Reading and Berkeley. In 1989 he became a full-time member of the faculty at Berkeley and Director of the University's Institute of Urban and Regional Development.

In addition to extensive participation in government committees and task forces in the UK and throughout Europe, Peter Hall has been a prolific writer, researcher and commentator on a wide range of issues in urban planning and transportation, the environment and social and industrial change. Perhaps his most important contributions have come through his ability to bring together, and to integrate, a vast amount of information, competing ideas and legislative responses on urban change and planning practice. He has also often been among the first commentators openly to question conventional wisdom and planning policies in the UK, on topics as varied as rail transportation, suburban malls and the inner city. Further, he has frequently been ahead of most of his contemporaries by identifying new trends and planning issues, as in the rise of new territorial clusters of economic activity and the widespread destruction of others (notably in the inner cities). He has also not hesitated to offer possible solutions to such problems, some of which—as in the case of proposals for motorway expansion and the enterprise zone concept—have generated considerable interest and controversy.

Many of these contributions and controversies are mirrored in the titles of his publications. Among his major books, several of which have since become classics in their respective fields, are London 2000 (1963, 1969), and London 2001

For many readers of the urban planning literature, perhaps the most valuable and stimulating of his recent publications has been *Cities of Tomorrow* (1988). This weighty but very readable work offers a comprehensive and provocative history and critique of the intellectual and pragmatic underpinnings of planning discourse and practice in the twentieth century. Few writers would even contemplate undertaking such a vast, complex and difficult assignment; even fewer would successfully complete the task.

As recognition of his many academic achievements and professional contributions to date, Professor Hall has received an impressive number of awards and honours, including Honorary Membership in the Royal Town Planning Institute (1975), election as a Fellow of the British Academy (1983), and the Founder's Medal of the Royal Geographical Society (1988).

In the present paper, Peter Hall brings together his recent thoughts on the causes and consequences of the structural transformation of the modern metropolis. The economic rationale for the emergence of the large industrial metropolis in the mid-twentieth century is fast disappearing as our urban economies shift from an emphasis on goods production to one in which the primary focus is on the provision of services and the processing and exchange of information. Old industrial structures, old methods and traditional corporate organizations have become increasingly redundant. New forms and styles of production and new territorial concentrations of economic activity, based on the circulation of information in an increasingly 'high-tech' environment, are emerging in their place. Drawing examples from Western Europe and North America, Peter Hall poses a number of questions as challenges for researchers and
policy-makers. Will the older cities be able to adapt to these changes? What are the ingredients for a successful adaptation strategy? Which cities will be winners? Will social polarization increase within those cities, juxtaposing areas of rapid development and social wealth against nearby areas of decline, abandonment and poverty?

Peter Hall admits that he does not have the answers to such questions. But he provides a stimulating and timely synthesis of the origins and dimensions of these problems and of the policy alternatives available to urban and senior levels of government in order to respond to these trends.

L.S. Bourne
November 1990
REINVENTING THE CITY

There is an image of the contemporary world city, which can be reproduced in London, Paris, New York, San Francisco, Tokyo, Toronto, or a score of other places. It is so strong, so pervasive an image that it becomes difficult—but also irrelevant—to ask which city this is. It is a picture of a completely decayed industrial area or dock facility. Sometimes the buildings survive as ruins, sometimes they do not. Invariably the site is criss-crossed by the infrastructure that once served the buildings: old roads, old railways, or at least their traces. Weeds, even minor forests, already grow between the tracks, showing just how quickly and pervasively nature reasserts control: looking at this greening of the city, you can more readily appreciate how whole Meso-American civilizations remain buried in jungle.

But that is only half the picture. In the background—sometimes the immediate background, sometimes a mile or two away—is another city altogether. This is a city of gleaming towers: some chaste and cool and square and aluminum-clad, some exuberant in their post-modern coruscations. Most are offices, some are hotels and luxury apartments; in their midst may be a conference centre; shopping, almost invisible from this angle and this distance, lines the street level and sometimes the under-street level too. This contrast, between the dead city and the living city, is the really striking feature of the contemporary scene in any of the world’s great cities.

I first want to ask why this should be so. Cities have gone through huge structural transformations in history before; that capacity to change, to readjust, is of the urban essence. But the one we presently see is, I think, unique; and we should ask why. Secondly, I want to notice that not all cities, even great cities, are adjusting at the same pace; some exhibit less of the decay, some less of the gleaming new structures. I want to ask what forces assist, and what forces hinder, this process of change. I want to suggest that all cities face the same challenge, that some adjust more successfully than others, and that we can isolate some of the ingredients that make for success or failure.
THE GREAT TRANSFORMATION

The basic reason for the change is that cities are going through a huge structural transformation, perhaps the greatest—and, if not, certainly the second greatest—in their collective history. They are evolving from industrial cities or goods-handling cities into what are variously called post-industrial, or tertiary, or informational cities. That change is at least as momentous as the one that made some of them into industrial cities between 150 and 200 years ago; superficially it may look rather like a history written backwards, but not essentially so. I think it important to understand the precise nature of this change. Almost exactly fifty years ago, in a book called The Conditions of Economic Progress, Colin Clark (1940) pointed out that during the twentieth century, in almost all advanced industrial countries, the proportion of people engaged in manufacturing had tended to fall while the proportion engaged in services had tended to rise. That process has continued unabated since he wrote; though for a few years after World War II some countries managed to increase their manufacturing proportions and at least to hold constant the proportions, since the 1960s the tendency has been universal, and typically in advanced economies between 65 and 75 per cent of all employment does not involve the handling of goods at all, if you except the handling of paper and files: it involves manipulating things that you cannot drop on to your toe.

There are various ways of classifying and analyzing this all-pervasive tertiary sector. Robert Reich (1989) divides economic activity into three groups: the residual production sector, consumer services and what he calls the manipulation of symbols. This division is close to, but not identical to, the conventional division between producer and consumer services. It is related to, but not at all identical to, another division: between goods-handling services, and information-handling services. All these ways of looking at the services are useful and important. But in many ways the important and elusive activity is what we can call, alternatively, information-handling or symbol-manipulating or producer-service provision. It includes the work of bankers and lawyers and accountants and computer technicians, although some of the work of all these could also be classed under consumer services—just as the work of physicians and educators has the same ambiguous quality. There seems to be general agreement now with the thesis first advanced in Britain by Jonathan Gershuny and Ian Miles (1983) and latterly in America by Stephen Cohen and John Zysman (1987): that much of the increase in
these jobs has arisen because of a restructuring in the contemporary economy, whereby fewer and fewer people are now needed on the factory floor, to produce an increasing volume of goods, while more and more are needed to plan their production, to advertise and sell them, and to sue or be sued over their delivery, or to educate people how to become managers or technicians—and so on, in an endless chain of service provision to industry. The quintessence or parody of the process is the completely robotized factory, monitored by technicians hundreds of miles away, and owned and controlled by a company in another continent.

The Gershuny-Miles-Cohen-Zysman argument is that Manufacturing Matters: it really does matter, at the end of the day, who owns and controls those processes, because everything else is finally derivative from them. Put another way, in a proper accounting matrix all these service providers would be allocated to manufacturing, where they belong. That may be right, but the fact is that invariably they are locating themselves in different places from the producing places. We do not know exactly how different, because no one seems to have done the definitive work. Some important recent work in Britain, by the Producer Services group of the Institute of British Geographers (Marshall 1988), does strongly suggest that there is some association at a regional level between the growth of producer service employment and the growth of the remaining growth manufacturing sectors, meaning high-tech. Both, for instance, are found heavily concentrated in South East England, above all in the counties around London.

That would seem logical, but they also found something of a disjuncture at a sub-regional level: the producer services, or at any rate some of them, are strongly based in London itself, while manufacturing and the associated R&D are in the surrounding ring of counties. But further, there is a general tendency for the producer services to move out from London to these counties, and on a smaller scale from the big provincial cities to their surrounding rings. The activities that move out are the more routine ones, and these are the ones also most likely to be found in the major provincial cities. So there is a kind of hierarchy, with the most specialized and skilled and internationally related activities in the cores, and more routine or mundane activities at the regional or national periphery. Exactly the same thing seems to be happening in North America, where suburban campus office parks are mushrooming even while new offices spring up in the downtowns. Northern New Jersey is now said to contain more office space than
the Chicago and Los Angeles downtowns combined, while Tyson's Corner outside Washington—a sleepy grocery and gas station twenty years ago—is now the biggest downtown in Virginia.

SUCCESSFUL AND UNSUCCESSFUL CITIES

Notice, though, that this is happening only to some kinds of city. The path-breaking work of Noyelle and Stanback (Noyelle and Stanback 1984; Stanback 1985) shows very clearly that some kinds of city have done very well while others have not. Contrary to popular view, the real international giants like New York, Chicago, Los Angeles and San Francisco did less well than the second-rung regional centres like Boston, Atlanta, Minneapolis, Houston, Denver or Seattle. That conclusion, however, may have been biased by being based on data for 1970-80, a decade when New York was in severe travail while places like Houston and Denver boomed; the 1980s record may look very different. The new work by Cheshire and Hay (1989), on the European urban system, concludes that some of the best performers are either second-rank cities in the bigger countries—places like Bristol or Toulouse or Florence or Stuttgart—or the smaller national capitals like Brussels, Amsterdam or Copenhagen. But there is an exception to that: older industrial and port cities that served as provincial capitals for old industrial regions, like Glasgow or Liverpool or Dortmund, did not do well at all. That conforms to Noyelle and Stanback's conclusion: the places that did worst in the American urban system were the specialized manufacturing and manufacturing-headquarters cities, like Cleveland or Buffalo or Pittsburgh or Detroit. Though the evidence is just emerging, it now seems clear that even in Japan, some such cities are now performing relatively poorly as their basic industries decline.

I do not think that we yet have the evidence to make a comprehensive judgement, but provisionally we can conclude this way. Cities that put their eggs in one or two baskets, that lived off a basic manufacturing industry or off port activities associated with such a manufacture, faced the most serious problems in the 1970s and 1980s: invariably these industries contracted, throwing a substantial minority of the population out of work, and there was no other alternative economic tradition to fall back on. Cities that were diversified service centres for regions that were themselves diversified generally had no such problems, and
readjusted relatively painlessly; most were in non-industrialized regions, even though they might be national capitals. Some very large cities puzzlingly contained disparate and even contradictory elements: they had big manufacturing and port sectors which declined catastrophically, even while informational services were expanding. This explains two paradoxes: first, why they could go on a roller coaster ride from bust to boom, like New York between the mid-70s and mid-80s; secondly, why they should contain within them the bizarre contrasts between opulence and squalor in the space of a few miles, such as Tom Wolfe (1987) has so brilliantly described in his novel *The Bonfire of the Vanities*.

But that last contrast pinpoints a problem: the transition from the one economy to the other is very far from painless. The decline of the older goods-handling economy removed literally millions of manual jobs, overwhelmingly male in terms of sex stereotyping, overwhelmingly blue-collar in class terms. Some needed manual dexterity and judgement that had been painstakingly acquired; some needed principally male muscle. These jobs were filled by similar workers in developing countries, or by robots or at least by automatic machinery: go to any container port and think about all those longshoremen whose jobs are now filled by that one man up in that crane in the sky. The new jobs required quite different formal skills, generally learned at school or at least based on skills acquired early in life; they also required a particular kind of middle-class socialization, quite alien to the male-bonded world of manual labour; many of them were sex-stereotypically female. So two kinds of job mismatch developed: one, mercifully a temporary one, represented by the displacement of a whole generation of manual workers; the other, longer term and very disturbing, represented by the apparent inability of educational systems worldwide to produce in the next generation the blend of skills and attributes necessary for entry into the informational economy.

To sum up the argument so far, then. Some cities do much better than others in the jump from the old economy to the new. Some have the dice loaded structurally against them, others have it loaded for them. But even the lucky ones find they have a problem, because many of their people—and behind them, their schools and their institutions—cannot make the necessary jump either. The first you can call a demand side problem, the second a supply side problem.
TOWARD POLICY PRESCRIPTIONS: FOUR PRECONDITIONS

Where does that leave us academics, if we are asked to come down from our ivory towers and make policy prescriptions? If we are asked, what are the preconditions for successful economic transformation, we find that several key conditions appear to be operating in the successful cases. We can identify them as the role of knowledge; the injection of appropriate informational infrastructure; the quality of urban life; and the mega-project. None will guarantee a successful transition. But without all of them, it is unlikely to occur. And finally, we shall need to come back to that mismatch problem; because I think it is the one that no place, successful or otherwise, seems to have handled well at all.

Developing the Knowledge Base

It seems that the problem children are to be found especially in the old industrial and port cities—what Noyelle and Stanback, in their American analysis, call the manufacturing cities and the functional nodal cities, the Pittsburghs and the Detroits. The question is whether they can find new functional niches in the informational economy. They may well be able to do so, and I think that there are examples to that effect.

First, many of them are also seats of major universities established as the result of civic effort in their industrial heyday. Manchester has the largest single university campus in England; Pittsburgh's Carnegie-Mellon has achieved great eminence in the field of information technology; Germany has deliberately established new universities in the Ruhr, at Dortmund and Bochum. Universities are labour-intensive industries in their own right, with strong income multiplier effects on a range of service industries.

But more than that, university research may establish industrial spin-offs. The most spectacular and well-documented case of that is the Massachusetts Institute of Technology. Greater Boston is of course the most outstanding global case of an old industrial city which remade itself through grafting on new industrial traditions. Now it is clear that MIT played a crucial role in this. It was early research on electronics, in that university's Department of Electrical Engineering,
which led to MIT's selection as a major centre of advanced electronics research during World War II; and it was that research, spinning off through existing firms like Raytheon and new university spinoffs like Digital, which created the Route 128 phenomenon. It is true that MIT was powerfully assisted in this by having powerful agents in high places, particularly the presence of Vannevar Bush in the wartime Office of Scientific Research and Development. But the reason that Bush was there in the first place was because of his, and MIT's, preeminence.

In the history of American defence expenditure during and since World War II, which has essentially remade the industrial map of the United States, we find that universities outside the old industrial cities, places like Caltech in Pasadena or Stanford in Palo Alto, played a crucial role; and that seems to have been because they were willing to take big risks on research that seemed eccentric or even half-crazy, as when Caltech went into rocketry. That suggests that universities, like industrial corporations, may acquire a form of arterio sclerosis: a kind of hardening of the imaginative arteries, or what the Glasgow historian Sidney Checkland called the Upas Tree effect, likening that city's shipbuilding industry to the mythical tree of the South Pacific that killed all other vegetation in its shade. When Caltech proposed to do rocket research for the U.S. Air Force in 1938, MIT said it was not interested: California could do what it contemptuously called the Buck Rodgers stuff. That demonstrates that even great universities may become hidebound, in this case without fatal consequences.

The fact is that universities in old regions may suffer the fate of industrial firms in those places; they may fail to constitute what the late Philippe Aydalot has called an innovative milieu. Just how to achieve such a milieu in an old industrial region was a major concern for Aydalot and his colleagues in the GREMI (Groupe de recherche européen sur les milieux innovateurs) group. They showed that in one or two cases—the Swiss Jura, its watchmaking industry wiped out by electronic competition from the Far East, was a spectacular example—it was indeed possible. But this is a cautionary tale, for the Swiss Jura was unusual in a couple of respects. It was a zone of small-scale artisan production in small cities and towns. It was not dominated by huge firms devoted to traditional ways of production, as Glasgow and Detroit both were. It could adapt quickly because it was already a model of what it has become fashionable to call flexible specialization. Glasgow, as Checkland pointed out, was paradoxically not a city built on Fordist
production; its shipbuilding industry was paradoxically destroyed by Fordist competition from Japan and Korea. Its production methods, unfortunately, seem to have been all its own, a kind of inflexible specialization. As Lever and Moore (1986) have stressed in their recent study of the West Central Scotland manufacturing economy, an innovative milieu was just what Glasgow was not.

The Importance of Infrastructure

Another clue is to be found in the right kind of infrastructure. Infrastructure, particularly transportation and communication infrastructure, is basic to the informational revolution as it was 200 years ago to the industrial revolution. But it has perhaps been misunderstood, because too many people have been obsessed with only one element: information technology, meaning telecommunications and commuting and their supposed convergence. I do not wish to denigrate this, but there has been an extraordinary tendency to make superficial predictions based on a naive overestimation of the speed of technological change and an equal underestimation of social and institutional inertia. Already a decade ago, some expert forecasters were confidently predicting that by now telecommuting and homework would massively reduce the need for travel; that electronic mail would almost completely replace conventional mail; that the home would become an intelligent office. Instead, in every advanced metropolis massive traffic congestion is now one of the main news items; electronic mail remains a curiosity, having been completely overtaken by facsimile transmission, an exceedingly old technology which has received a new lease of life; conventional mail services, and their commercial competitors, are doing record business; and the home is far from being the electronic nerve centre that was predicted.

What has happened, in fact, is something that has occurred many times in the history of technological change. Certain technologies have enjoyed very rapid acceptance because they fulfilled a real need, a real market niche, and did so in a user-friendly way. Others, though theoretically superior, have remained on the shelf. There are two classic instances: fax versus electronic mail, as already mentioned; and high-speed rail versus the magnetic motor car. Fax has won out because it could be operated like a phone; it did not require a Ph.D. in computer science, as electronic mail still does. Similarly, high-speed rail—in the form of the
French TGV and the German ICE—seems destined to win out over the German and Japanese variants of magnetic levitation because it can be plugged into existing national rail systems, without the need to duplicate the entire inter-city infrastructure.

That last case is important because of another factor. As Richard Meier (1982) pointed out years ago in relation to the telephone, it is by no means axiomatic that electronic technologies will substitute for transportation technologies. For one hundred years, the steady rise in telephone use has gone in parallel with a rise in personal business travel; so it is likely to be with the new communication technologies. But there has been no real technological breakthrough in transportation since the Wright Brothers in 1903, or at least since Whittle in 1942.

We are just seeing one in the form of the high-speed train, which really is as different from previous rail technology as early trains were from stagecoaches. (The order of improvement in speed is about the same, a factor of three). The importance of the high-speed train is that it offers an effective substitute for air transportation for journeys of up to a critical limit that lies somewhere between 500 and 900 kilometres, which happens to be the range of inter-city business journeys in many of the densely-populated post-industrial urban regions of the world, like the East Coast of North America, North-West Europe, California, or the Tokkaido Megalopolis. Even the Shinkansen, the earliest and now relatively primitive example, effectively wiped air journeys out over the 500-km. Tokyo-Nagoya-Osaka corridor; the TGV has done the same over the 500 km. between Paris and Lyon, and will soon do so over the entire 800 km. between Paris and Marseille.

This means that the form of the high-speed network, and in particular its hub points, will be crucial for competitiveness in the informational age. A particular role is almost certain to be played by the relatively few interconnection points between the rail and the intercontinental air services. In Europe, where this is understood very well, the French are already planning a mega-development around Paris Charles de Gaulle airport, and the Germans are seriously contemplating moving the main Frankfurt train station to the airport. These two cities are likely to compete with each other, and with Brussels, for the title of the top informational cities of Europe. No wonder that Mikhail Gorbachev, when he
addressed the Council of Europe earlier this year, listed an east-west high-speed train as his number one example of technological cooperation within his common European house. As usual, Gorbachev is one step ahead of almost everyone else—though probably not of François Mitterrand or Jacques Chirac.

The effect of the high-speed train, then, will be to create a new geography of urban advantage and disadvantage, which will help reshape existing urban hierarchies. The French are not just planning a future for Paris; they are planning an equally important one for Lille, that somewhat deindustrialized industrial capital of the Nord-Pas de Calais region, by making it the critical junction-point of what will become the major trunk line of Europe, thus launching it into the informational age.

Less clear, I believe, is the impact of changes in information technologies. The overwhelming evidence, from the research so far done, is that something like a process of circular and cumulative causation occurs here. Areas with existing concentrations of informational industries make the heaviest demands for information technology, or IT. So services are most heavily concentrated there, and innovations will occur there first, even if they spread fairly rapidly to other parts of the country. Further, specialized technical services are always more readily available there. And in turn, this encourages the development of yet more specialized firms, both in the provision of hardware and software, and in the production of information based on that foundation.

So the information-rich regions—London, Paris, Frankfurt—get ever richer, while the poor regions become relatively ever poorer. This is paradoxical, because it flies right in the face of the technological forecasting literature, which suggests that IT brings a diffusion and an evening-out of advantage across the whole territory: the entire workforce spread out in its electronic cottages, right up to the most distant mountain tops. That would be true only if the process of technological adoption were supply-led; but all the research suggests that it appears to be demand-led. So there is an accelerating centre-periphery contrast. And this feeds back on to transportation investments: the new high-speed trains will connect these major business centres, which also happen to be the location of the major hub airports; and this, in turn, will reinforce their position as the critical nodes in the international system of information generation and exchange.
To this rule, the research also stresses, there is one major exception. Within the information-rich regions, firms are sensitive to costs—both of rents, and of salaries. So, unless their activities have a pressing need to locate in the very core, they will tend to migrate to the periphery of those regions in search of lower rents and easier access to their labour force, which disproportionately consists of middle-skill, middle-income women in suburban homes. This explains the phenomenon of local decentralization, to which I referred earlier. Here, technological innovation does play an important role in deconcentration, by allowing easy interconnection and exchange of information between a number of office centres, both central and peripheral.

The critical question is just how widely this process of deconcentration may go; and here the evidence is as yet ambiguous. Overwhelmingly the main beneficiaries, so far, have been the kinds of places I earlier quoted: suburban centres like Stamford in Connecticut, Tyson’s Corner in Virginia, the I-680 Corridor in the San Francisco Bay Area, Reading in Berkshire and Omiya in the Tokyo area. But in England there is evidence of wider diffusion of some of these routine processes, such as credit card payments, to more distant locations; and in the United States some such operations are being moved to very remote locations like the Dakotas, where a supply of well-educated small-town women exists. Everyone has also heard of the movement of operations like airline ticket checking to the Caribbean, which may be the start of a wider trend.

The critical limitation here is however not the technology—800 lines now operate internationally—but the supply of suitable labour. True, Best Western reservations are made from the Arizona Female Penitentiary, but this is unusual; generally, the kind of labour that is needed is especially concentrated in suburban locations. So, most likely, the prospect is that the higher-level informational industries will continue to be concentrated in the highest-level metropolitan areas—the so-called world cities—but that there will be a crucial differentiation: contact-intensive activities will continue to concentrate in the very core, while the more routine activities will disperse to the edge and will, paradoxically, reconcentrate there.

There could be a change in this, only if information technology—such as videoconferencing—allowed these contact-intensive activities, too, to escape from
the central cores. But there is absolutely no hint that this is happening. On the contrary, in many world cities central office rents have actually escalated because of the competition for space; the rent gradient between the central core and a location in the near suburbs only 10-20 kilometres distant, is now about 4:1 in London; beyond that point it flattens, so that major decentralization sites like Reading, 70 km. distant, may command rents as high as the London suburbs. We may speculate as to why this is so. I think that the most likely explanation is the one proffered by John Goddard in his earlier work nearly two decades ago (Goddard 1973, 1975): that unprogrammed decisions requiring random information not gleaned through information technology, are the ones that will stay in the centre and are the really important ones.

Another illustration of this rule is the growth of the professional conference or convention. If information technology were really capable of what its proponents allege, there really would be no need for gatherings of professionals at all. But, as we all know, this is one of the most dynamic forms of business tourism which in turn is one of the most dynamic forms of tourism. I conclude that people have an almost insatiable need for the kind of information they get in pre-published form and also in the corridors and bars: the informal part of the formal informational economy. It would be very interesting to map the location of these business conferences. It is of course constrained by the availability of hotel accommodations, which favours major business cities or major resorts.

From the foregoing, I think that we can grasp the outlines of a new urban hierarchy at an international and a national scale, one based no longer primarily on the production and exchange of goods, but on the production and exchange of information. It is important to realize, though, that the precise shape of this hierarchy does vary from country to country, dependent on the vagaries of history. That is most clearly seen in Western Europe, with its huge national variations from the highly centralized and primate (France), to the dispersed (Germany). Particularly notable are two facts: first, European nation states so far persist, which gives their capital cities disproportionate importance compared with a continental-scale nation state like the United States; second, the accidents of national unification may produce skewed urban hierarchies like those of Italy or Spain, where two or three metropolitan areas compete for primacy. A particularly important question for Europe is whether achievement of the Single European
Act in 1992, if indeed it happens, coupled with the development of the new high-speed train network, radically reshapes the urban hierarchy along continental rather than national lines. The major developers are presumably betting that this will happen, hence their obsessive interest in mega-projects within some cities.

Culture and the Quality of Life

Earlier I mentioned Glasgow as the stereotype of the non-innovative city. But Glasgow has bounced back, in a fashion. As Lever and Moore point out, the reality is quite the opposite of the popular mythology: far from being the home of tough men doing manual jobs, Glasgow is now a city of service industries with a high proportion of female employment. It has got itself elected European Culture City. It has two major art galleries that attract visitors from afar. It has had a garden festival. It is becoming a tourist city. The imaginative reconstruction cum-rehabilitation of the eastern side of its downtown area, in association with the Glasgow Eastern Area Renewal project, has massively helped. It is advertising itself: Glasgow's Miles Better, the posters say. It is helped by the fact that it is 650 kilometres from London and that Scotland has its own banking system, so that both Glasgow and Edinburgh are free to develop regional financial institutions in a way that English provincial cities are not. (Interestingly, Edinburgh is by far the most successful of all the great British cities in adapting to the informational economy, but it was more than half-way there in the first place; among all these cities, it was always the least manufacturing-based.) Glasgow started from a far more difficult position, but has done relatively well.

Another city that may be on the verge of a major transformation is Manchester. Manchester entered the modern world as the first great manufacturing city, but it soon in part shed that role. During the nineteenth century it was in effect the informational nerve centre and the high-tech industrial core of a vast industrial district; it did not make Manchester's cotton, but traded it and made the machinery to produce it. It decayed with that industry and it lost its great cultural institutions—the Manchester Guardian, the Hallé Orchestra, a host of insurance companies—to London or into oblivion; even its famous Ship Canal shut down, and is now bereft of ships. But now Manchester is on the verge of a second major transformation. Its rival Salford has set the pace by developing its side of the Ship
Canal docks into a mini-London dockland. Manchester is following suit with two Development Corporations, which are redeveloping or rehabilitating a vast swathe of land in the south and south-west centre of the city, adjacent to the downtown. The old Roman fort is becoming one of the greatest museum complexes in Britain, which will eventually sit in the heart of the redeveloped area. New offices, at rents which are a fraction of London's, may attract large decentralized blocs of activity from the capital. Manchester may well follow the example of Boston, which set out to reconstruct its decayed waterfront in the same way.

The Anatomy of the Mega-Project

The last point that requires comment is the nature of the physical transformation. For this, too, is almost unique. To a large degree, it takes the form of what can be called the mega-project or mega-development. This, it can be argued, is the distinct contribution of the 1980s to the history of urbanism. It is true that there were such projects before: I suppose Versailles or London's Great 1851 Exhibition or Chicago's 1893 Colombia Exposition were examples; nearer to our time, the British new towns were certainly mega-projects, while the Barbican in London, which won a competition in 1956, or La Défense in Paris, projected as long ago as 1958, were in many ways the direct precursors of what has happened so widely in this decade. The 1980s then did not invent the mega-project; but they did make it the distinct urban happening. Developments like the London Docklands, Eurodisney in Paris, South of Market in San Francisco, and a whole score of developments in Tokyo, mostly associated with reclamation of the Bay, illustrate this point. The mega-project played a crucial role in the regeneration of Boston, with the Rouse corporation's transformation of Quincy Market. It played another such role in Baltimore, with the reconstruction of the Inner Harbor. Baltimore is in some ways a more interesting example than Boston, because it was an almost pure industrial and port city which has transformed itself into an office and entertainment city: the Inner Harbor is one of North America's major tourist attractions, vying with the original Disneyland at Anaheim. There are those who say that the transformation of Baltimore is skin-deep: that behind the glistening facades of Harborplace and the Charles Center is dire poverty and hopelessness. That is almost certainly true; the question must be what Baltimore would have
been like if these developments had not happened. And the obvious answer must be: much worse.

The mega-project is typically a vast private sector development or redevelopment, invariably involving the revitalization and revalidation of decayed urban land and buildings, sometimes involving landfill, carried through by a very large developer working at an international scale, with international finance capital, in cooperation with the public sector and with the aid of public infrastructure. In Toronto you might claim that you invented it in its modern and full-fledged form. Most of what we find interesting on the urban scene in recent years falls under this head.

What distinguishes it from previous urban change is scale and concentration. Huge transformations did take place in cities in the past: witness the rapid change from residential to commercial use in high-class residential quarters in London, Paris and New York in the first half of this century. But they never involved the almost simultaneous redevelopment of a whole section of a metropolis, associated with the injection of massive new transportation infrastructure. The reason, I suspect, is complex: it arises from the conjunction of a number of triggering factors, some very long-term and structural, some short-term and contingent. They include the rapid shift to the informational economy; the transformation of that economy by new technology, the arrival of the so-called smart building; the economic recovery and boom of the middle and late 1980s; the internationalization of finance capital; the Plaza Accord of 1985, which led to huge financial surpluses in Japanese banks; and the Single European Act, also of 1985, which has galvanized development capital into massive investment in the leading European cities. Since some of these factors are very contingent, we might expect the phenomenon to end as suddenly as it began; but I would doubt it.

One reason for this is that increasingly, the image of a city matters. The nineteenth century had a phrase for places like Manchester: Where there's Muck there's Money. Now, just about the reverse is true. Places compete with each other for mobile firms and mobile jobs on the basis of their attractiveness; that is why the ratings question has become so all-important in the 1980s. Creating a vibrant downtown, but one that is also sanitized for tourists, is an essential element in all this: the potential new entrepreneur is likely to judge the city from
first impressions out of the hotel window, or at least from the first morning jog or evening stroll. What he or she sees may be a Potemkin village concealing slums and poverty and crime, or it may not. The point is that a successful, spruce downtown is a sine qua non for economic revitalization.

Mismatch Revisited

But there is an important question lurking behind the facades: it is the question, mentioned earlier, of mismatch. The people who go into the new jobs are not often the people who get thrown out of the old jobs, or even those people's children. And some of the new jobs are what are contemptuously called McDonald's jobs, meaning low-paid dead-end service jobs. Many commentators follow the line of Benet Harrison and Barry Bluestone (1988), who conclude that the so-called Massachusetts Miracle has been a myth because it has destroyed good jobs and put bad jobs in their place. That may be true in the short run: the real question is whether the transformation creates career ladders, and if so for whom.

I am persuaded by the work of John Kasarda and Jürgen Friedrichs (1986), who conclude that in both American and West German cities the critical problem is now one of mismatch between the demands for labour in the new informational economy, and the supply of skills from the schools of the cities. The great economic transformation, they conclude, has destroyed the entry-level jobs, the brawn and muscle jobs, that were once so plentiful in the inner city. Paradoxically, therefore, the city has to import skills to fill the new jobs while its teenagers hang around idle on street corners.

The fate of this lost underclass seems to me the crucial one that now faces policymakers in our cities. I do not have an answer and I am sure that no one else has one yet, which is why the Rockefeller Foundation is giving away millions in the hope of finding one. But I do not think that the answer could be to try to put the urban economy into a time warp or into reverse thrust, to try and restore the patterns of 1890.
CONCLUSION

So there is some hope everywhere. Every city can try. The iron laws of location, that gave us the Weberian locational triangle, are no longer so unmalleable. To change the metaphor drastically, the new informational industries march to the sound of a different locational drum. It is one that can sound in a whole host of places, some of them seemingly unpropitious. Oddly, the transition from the goods-handling to the information-handling economy is creating something like laissez-faire competition among cities.

True, the chances are not equal. But the disadvantages are no longer of the permanent, immutable kind: they can be changed by public and by collective private action. A new or enhanced university system, a new airport or a new high-speed train link, a decision to create a major entertainment or cultural complex in a decayed port or warehouse area, can transform at least part of a city's economy, and this will create multiplier effects that will spread to some degree through the urban economy. But not entirely: the uneven quality of these impacts, particularly their failure to reach the most deprived and the most excluded, is the remaining enigma to which we have as yet no answer.
References


