Multimedia Utopia? A Geographical Critique of High-Tech Development in Malaysia's Multimedia Super Corridor

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For all the supposed novelty of the "Information Age", high-tech development in Malaysia perpetuates existing patterns of social and spatial inequality. The Multimedia Super Corridor (MSC), a 50-km-long high-tech zone stretching southwards from the federal capital, Kuala Lumpur, is imagined in state discourse as part of a transition to a "multimedia utopia" benefiting all Malaysians throughout the national territory. This article seeks to contest such utopian imaginings. In the first place, informational forms of economy and society are dependent upon complex physical infrastructure, the distribution of and access to which is highly uneven. The MSC and other major investment in information infrastructure in Malaysia are overwhelmingly concentrated in the main national city-region. Second, already marginal groups and individuals are subjected to new forms of social and spatial exclusion. Apart from financial exclusion arising from the privatisation of high-tech spaces, incorporation into Malaysian high-tech futures is dependent upon the possession of skills deemed appropriate for an emerging information economy and society. These processes are exemplified by the displacement of plantation workers in the construction of Putrajaya, one of the MSC's two new "intelligent" cities. While such negative social impacts have a long association with large-scale modern development projects, the article argues that it is specifically a pervasive discourse of "high-tech"—and the way in which this has been refracted in the national context—which legitimises the financial and social costs of new high-tech urban development.

Introduction

In August 1996, the Malaysian Prime Minister Dato' Sri Dr. Mahathir Mohamad announced that a 50-km strip of land stretching southwards from Kuala Lumpur would be developed as the Multimedia Super Corridor (MSC). This 15-km-wide high-technology zone now extends from the national capital as far as the recently completed Kuala Lumpur International Airport (KLIA) at Sepang in the state of Selangor (see Figure 1). In between, two new cities are under construction: Putrajaya, the new electronic Federal Government Administrative centre; and Cyberjaya, an "intelligent city" (Multimedia

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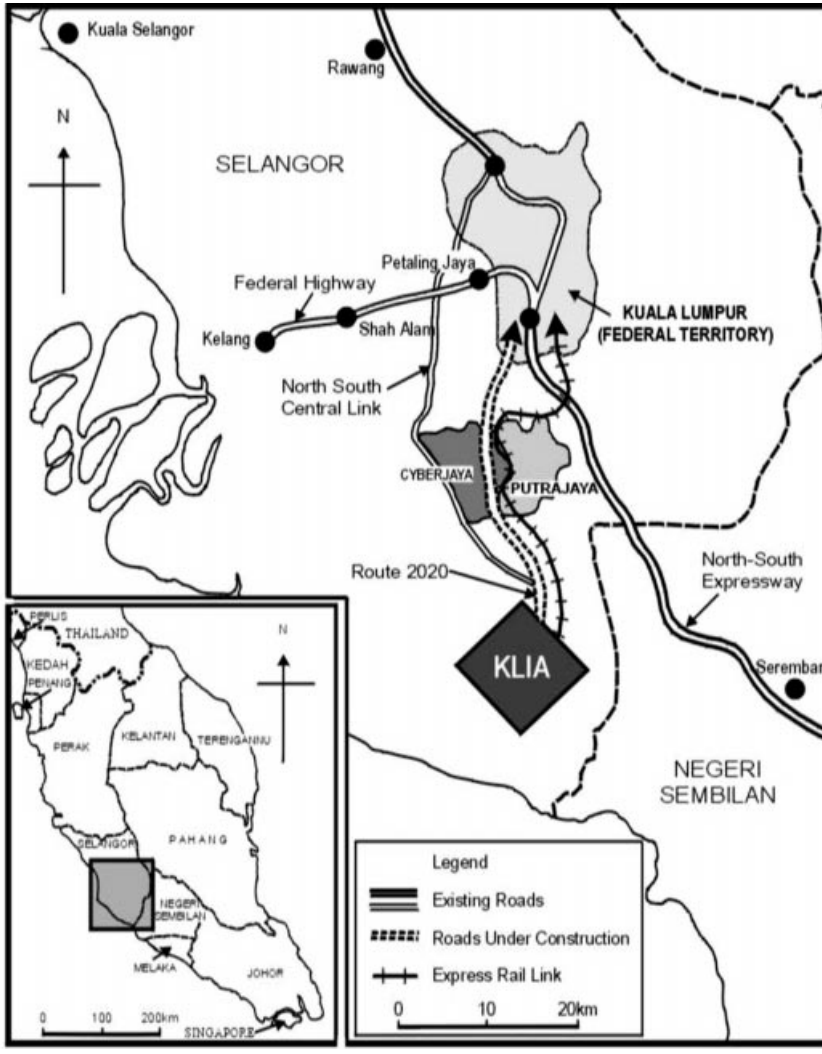

Figure 1: The Multimedia Super Corridor

Development Corporation 1997a) for both foreign and local high-technology companies. At one level, the MSC may be understood in terms of the ongoing expansion of urban-based capitalist production beyond the "core" industrial countries. In Malaysia, however, the creation of these new urban spaces is self-consciously considered as a means of plugging into, and helping to shape, an emerging informational economy and society. Like urban development and planning agencies elsewhere, the MSC's proponents posit "high tech" modernity and total global connectivity as a means to national success in a new technological epoch.

Yet for all the supposed novelty of the "Information Age", the MSC represents, for the most part, a continuation of prior aims and means of national economic and industrial development. Two somewhat paradoxical aims may be identified, namely *integration* and *independence*. The construction of wired urban spaces for global connectivity finds precedence in other state-led attempts to integrate the nation into the global economy, most notably the infrastructural and "soft" incentives of free trade zones (FTZs). Yet attempts to become a Silicon-Valley-style generator, rather than importer, of technology resonate with the quest for technological independence that has been a feature of state development since at least the early 1970s.

Not surprisingly, the broad ideological underpinning of strategies to realise such aims—liberalisation and modernisation—show similar continuity. First, the MSC extends and was made possible by liberalisation associated with the Mahathir era (Gomez and Jomo 1999; Ong-Giger 1997). MSC-status companies are guaranteed: unrestricted employment of local and foreign knowledge workers;[1] exemption from local ownership requirements; and the freedom to source capital and borrow funds globally (Multimedia Development Corporation 1996a). Second, the MSC reflects the endurance of a modernist faith that large-scale, state-led urban planning can effect social as well as economic transformation in desired directions. As such, the MSC is envisaged as contributing to the realisation of "Vision 2020", Prime Minister Mahathir's existing long-term goal of making Malaysia into a "fully developed country" by that year (Mahathir 1991).

What was new at the inception of the MSC, perhaps, was a specifically high-tech strand of developmental utopianism. One graphical representation produced by the MSC's lead agency, the Multimedia Development Corporation (MDC), plotted the increased wealth needed for the attainment of Vision 2020 as well as an even more rapid economic growth trajectory offered by the "potential information age approach".[2] Representations such as this reflected and contributed to a sense of economic optimism in Malaysia following a period of unprecedented growth.[3] Yet the largely unambiguous optimism of representations of technological futures in Malaysia extended beyond the economic domain. Political speeches, marketing brochures and exhibitions encountered during fieldwork in 1997 depicted a postindustrial society that was not only wealthier but also variously simpler, cleaner, more environmentally friendly, more efficient and more egalitarian. This found expression in new vocabularies of technological optimism, speaking, for example, of *smart* schools and *intelligent* features. Thus, the politics and planning of informational futures in Malaysia may be said to have plugged specifically into celebratory accounts of the supposedly imminent and inevitable new technological era (cf Gates 1995; Kelly 1995). Together, the economic growth

and social amelioration associated with the MSC in particular is represented in terms of a transition to what MDC has termed Malaysia's "Multimedia Utopia" (Multimedia Development Corporation 1997b:4).

This paper critically evaluates utopian imaginings of high-tech development in contemporary Malaysia. The focus is not on broad national shortcomings in the vein of neodependency writing, to cast the MSC as merely another symbol of underdevelopment associated with the productive decentralisation of high-tech corporations from "core" states. Just as the economic success of the other "developmental states" of East and Southeast Asia has been "consolidated in real, autonomous upgrading of productive capacity" (Hoogvelt 1997:205), the MSC has the potential to confer at least local economic benefits. Yet, as will be shown, the development of high-tech Malaysia in the MSC is simultaneously associated with new manifestations of national scale disparity and marginalisation. This is understood, in part, precisely in terms of a diminution of the international (or interstate) capitalist world economy and its reconfiguration as an intensified global or transnational capitalist economy (Soja 2000), a reconfiguration characterised by highly uneven regional development and new patterns of social and spatial stratification both across and within national territories. At the same time, however, attention is given to the role of the state in such processes. Rather than considering the (nation-) state as merely "losing control" (cf Sassen 1996), the Malaysian state is shown to play an active role in informational policies and strategies intended to meet the demands of global capital. Indeed, it is the response of the developmental Malaysian state to supposedly new informational forms of economy—or, rather, to the way in which these are represented and understood in dominant discourse—that is resulting in new forms of social and spatial division in Malaysia's MSC.

Geographical Critique of High Tech

Perhaps the most influential social and spatial critique of the impact of the global economy emerging from information and communication technologies (ICTs) has been developed by Manuel Castells (1989, 1996, 1997, 1998, 1999, 2000). For Castells (1999:1), a new socio-economic system associated with the information technology "revolution" and processes of globalisation has led to "the generation of inequality and social exclusion on an unprecedented, planetary scale". While the extreme flexibility and mobility of informational capitalism allows the easy connection or integration of people and places of value, this proceeds to the neglect or disconnection of those that are not, or are no longer, so valued. Castells (1989:749) has long conceptualised this divisive process in terms of a growing dominance of

the *space of flows* over the *space of places*: "people live in places, power rules through flows". This conceptualisation clearly offers much to social critiques of high-tech development, and indeed, more broadly, has been described as "the benchmark and target of debate" on globalisation and urban-regional processes (Soja 2000:216). My aim here, however, is not to provide a sustained or comprehensive review of Castells' work, but rather to highlight three strands of debate relating to it that form the basis for a geographical critique of Malaysia's MSC.

The first strand concerns critical perspectives on the utopianism associated with "high-tech" development. Social scientists have long aligned themselves in opposition to the notion of new and especially information technology as an irresistible force for social and economic amelioration that persists in political discourse and corporate imagery (see, for example, Webster and Robins 1986). A common focus has been one of countering illusory egalitarian promises of corporate and political vested interests. In his work on *Cyberspace*, Rob Kitchin (1998:16) has noted that "globalisation is not an egalitarian process aimed at creating an equitable distribution; it is designed to reproduce capital most effectively". With this in mind, it has been suggested that the influence of ICTs will largely be one of reinforcing existing inequalities and creating new ones (Thomas 1995). While such arguments form an important counterweight to what Kevin Robins (1996:7) has termed the "dominant technoculture", there is a danger here of simply countering utopianism with an equally generalising and inadequate dystopianism (Crang, Crang and May 1999). This charge has, in fact, been levelled against Castells, whose conceptualisation of the space of places Ed Soja (2000:215) describes as "forebodingly overwhelming". As Castells (1997) has himself recognised, new technologies have also served to empower certain marginalised groups and places (see also Schon, Sanyal and Mitchell 1998). This paper relates high-tech urban development in a particular locale and nation to broader economic and technological processes without presuming the total divisive and exclusionary predominance of the latter.

The way in which such processes are conceptualised connects with the second strand of debate here, which concerns the supposed novelty of informationalism. For Castells (2000), this is nothing less than a new technological and economic paradigm replacing industrialism. Yet while the end of the second millennium may well be viewed retrospectively as the advent of an informational form of society and economy, Michael Storper (1997:240) has shown that, even in the United States, some 74% of today's workers "are still involved in making goods and delivering routine services directly to customers". The postindustrial shift is gradual, not revolutionary.

The need for caution is particularly important with regard to *geographies* of high-tech development. In Castells' work, the uniform

and simultaneous availability of information made possible by new technologies is assumed to greatly diminish the significance of physical location, if not to render it irrelevant altogether (Storper 1997). But notions of the "end of geography" (cf Graham 1998) have been debunked in at least three ways. First, rather than negating the need for personal physical proximity, the most technologically sophisticated economic activities are characterised by the continued or even heightened importance of face-to-face communication (Thrift 1996). Second, while at one level eroding the significance of spatial barriers through, for example, a cheapening of transmission and telecommunications costs, information technology may also augment sensitivity to spatial variations. ICTs allow organisations to exploit very small differences between locations, including: the cost and quality of human resources; physical infrastructure and transport facilities; institutional infrastructure such as the nature of local government; and various "quality of life" factors (Goddard and Richardson 1996). As such, an emerging global economy is not to be equated with a homogeneous space of flows: "It is instead a complex meeting of new kinds of globalized flows and new kinds of territorial economies" (Storper 1997:239). Third, information economy and society is supported by complex physical infrastructure in "real" places, the existence of and access to which varies at all spatial scales (Graham and Marvin 1996). This is especially important in the MSC since it is the development of physical infrastructure *for* the information age rather than the operation *of* a supposedly new social and economic formation that is, as yet, characterised by uneven social costs and benefits.

The third strand of debate also relates to a call for a recognition of continuity and concerns the role of the nation-state in high-tech development. Intensified interconnectedness associated, in part, with ICTs has not only promoted social and economic relations on a global scale, but has also fostered a recognition of the ahistorical state-centrism of much social scientific work. Nation-states have thus been "denaturalized" as the basic "containers" of social and economic life (Taylor 1996a, 1996b). Yet in seeking to escape the national "territorial trap" (Brenner 1997:138), researchers have arguably neglected the role of state-led processes in contemporary transformations. While he does not speak explicitly of the "end of the nation-state", as some have done (cf Horsman and Marshall 1994; Ohmae 1995), Castells' conceptualisation of the *space of flows* (1989) suggests that social and economic life at national and other subglobal scales is largely determined by global forces. However, in contrast to such assumptions of the diminution of the political economic significance of the territorial state in an era of globalisation, recent research has suggested the reterritorialisation of state institutions and power from

the national scale, particularly towards the urban-regional scale (Brenner 1998a, 1998b; Jessop 1999; Keil 1998). Thus, drawing upon the European experience, for example, Neil Brenner (1998b) understands global cities as part of the attempt by "rescaled", "glocal" territorial states to promote the competitive advantage of their major urban/city regions. In the Asian context, Aihwa Ong (1999:215) has recently made similar arguments focusing not on global cities, but on the "flexible management" of sovereignty such that "different production sites often become institutional domains that vary in their mix of legal protections, controls and disciplinary regimes". What these otherwise very different works share, *contra* Castells, is an assertion that the state remains a key institution in global capitalist restructuring and in understanding present inequality, "high-tech" or otherwise.

Certainly, the state has played a central role in the development of Malaysia's MSC. The next section considers the way in which the production of high-tech urban spaces has been rationalised as a valid state development strategy, not only in terms of Malaysia's post-colonial economic transition, but also in relation to discourses and transformation at regional and global scales. The remainder of the paper then consists of a geographical critique of state representations of the MSC as a national multimedia utopia benefiting all Malaysians. Two high-tech myths are exposed and explored in turn. The first is a myth of universal national benefit, which considers broad inequality associated with the uneven distribution of information infrastructure and the private sector development of exemplary urban spaces. The second is a myth of egalitarian incorporation in which in situ exclusion arising from high-tech development is exemplified by the displacement of plantation workers from Perang Besar estate to make way for the construction of Putrajaya, the new electronic federal government administrative centre. Certainly, these show significant continuities with previous (that is, non-high-tech) development in the postcolonial Malaysian political economy. However, I suggest that the discourse of "high-tech" further legitimises the uneven social costs of national economic development and marks the advent of new socio-spatial dividing practices.

Rationalising the MSC: National, Regional and Global Imperatives

The MSC is intended not merely as an industrial park, but rather as what has been termed elsewhere a "technopole" (Castells and Hall 1994). The putative difference is that while the former merely seek investment in and employment using existing industrial techniques and technology, the latter are concerned with research and development

—the creation of *new* technology. Undoubtedly the most celebrated technopole is Silicon Valley in the northwest quarter of Santa Clara County in California. The MSC cities may, at one level, be understood in terms of a long and ever-expanding list of attempts to replicate Silicon Valley's "technical virtuosity and economic dynamism" (Winner 1992:32). As is the case with most if not all such rivals, the MSC combines urban planning and design with supposedly state-of-the-art information and telecommunications technology such that the project is made known as a viable and attractive node in the high-tech economy (cf Graham and Marvin 1999). The intention, therefore, is that foreign multimedia companies investing in the MSC will ferment a culture of innovation in which Malaysians can initially participate and to which they will ultimately contribute. This will, in turn, "catalyse" the development of "a highly competitive cluster of Malaysian IT and multimedia companies that will eventually become world-class" (Zainuddin 1997:7). Thus, what is envisioned for the MSC is a planned environment for the long-term production of competitive high-tech Malaysian enterprises, "an environment where collaboration, creativity and risk-sharing are fostered" (Multimedia Development Corporation 1996b:23).

What are the material conditions and discursive understandings that have rationalised the aim of producing an innovative high-tech milieu in Malaysia and the means by which this is being attempted in the MSC? In seeking to answer this question, three generalised scales are considered in turn. First, at the national scale, I highlight what is understood as a postcolonial imperative of technological independence. The acquisition of knowledge and new technology are thus imagined as a means of preventing domination by technologically and economically powerful "others", and as a prerequisite for constructing a specifically Malaysian conception of information society and economy. Second, at the regional (Southeast or East Asian) scale, I consider how the pursuit of new technology has been framed in terms of an imperative of economic upgrading. Third, at the global scale, hegemonic discourses of technology and globalisation are shown to posit liberalisation as the means of connecting to and participating in the information society and economy (Schiller, 1999). While global in their scope, however, these broader discourses cannot simply be used to "read off" national technological and economic prerogatives. Rather, a multiscalar approach in this section is intended to convey both how a pervasive ideology of globalisation and information technology is refracted and reconstructed in a specific urban-national context and also how national aims and means of high-tech development have been constituted in relation to discourses and transformation at other scales.

National Economic and Technological Decolonisation

The state pursuit of science and technology in Malaysia, of course, precedes informational times. *Rukunegara*, a set of five principles of state outlined in 1970, spoke of a nation dedicated "to building a progressive society which shall be orientated to modern science and technology" (cited in Comber 1983:80). Work on world fairs (Pred 1995) and universal exhibitions (Harvey 1996) demonstrate that it is not only in Malaysia that science and technology have assumed a symbolic centrality in evaluations of national progress. Yet, in Malaysia, the urgency with which such progress is sought is heightened by postcolonial fears of technological subordination or subservience. Colonialism was an object lesson in vulnerability in the face of superior technology, industrial as well as military (Mee 2002). Advanced technological capacity is imagined as a national necessity vis-à-vis a perceived potential for Western technological and economic neocolonisation. While metaphors of "attack" by Western "others" in Prime Minister Mahathir's speeches on the Asian economic crisis have attracted recent academic attention (Kelly 2001), therefore, they are not new to state development discourse. Rather, this trope forms part of a long-standing political discursive elaboration of Western threat/Westernisation-as-threat that compels modernisation as "resistance" to (neo)colonisation. The following is excerpted from a pre-crisis speech to a Malay Muslim audience:

> In this era we need strength to prevent from being colonised in a new way. This strength does not mean the military form, although to a certain extent, it is needed. The strength we need is the strength that comes from political stability, economic health, social justice, efficient administration, the acquisition of knowledge and sophisticated technology which is no less than the developed countries … If we wait, we will be backward and will not understand the spread of knowledge and technology, past, present and future. Our race will be a primitive race, to be fooled, humiliated and oppressed by others. (Mahathir 1997)[4]

Anything less than an immediate and wholehearted embrace of new and especially information technology will only leave Malays(ia) vulnerable to a new round of technological domination.

The MSC, however, is aligned to the objective of fostering rather than merely acquiring or attracting technoscientific development. While, in four decades of independence, Malaysia has undergone a significant industrial transition—from dependence on monoculture to an export-oriented manufacturing base—this is not necessarily synonymous with technological and economic "independence". On the one hand, FTZs opened since the early 1970s not only were able to attract investment from multinational corporations in manufacturing

industries, particularly electronics, but also were, in some cases, said to have shown evidence of upgrading to higher value-added and high-wage processes (Salih and Fong 1989). By the announcement of Vision 2020, Malaysia had already become the largest exporter of semiconductor chips in the world, and today the leading computer component manufacturer, Seagate, makes 80% of its parts in Malaysia (Sussman 1998:112). On the other hand, however, even in Penang—which, prior to the MSC, had been dubbed "Malaysia's Silicon Valley" (Aroff 1995: 254)—microelectronics and other successful manufacturing industries in Malaysia remain very much dominated by foreign companies (Eyre and Dwyer 1996). According to Rajah Rasiah, more than 90% of the electronics industry in Malaysia was foreign-owned in 1993 (cited in Sussman 1998:121). Gerald Sussman (1998:138) concludes that "although electronics is associated with the advanced order of 'high tech', Malaysia has received little technology transfer and skills training from this industrial sector in the 25 years since the launching of the country's first export processing zone". The implications of this failure have not been lost on the Malaysian state. The MSC is envisaged not merely as an industrial park or free trade zone, but as an advanced technological milieu.[5]

Indigenous capacity is understood not only to ensure technological and economic autonomy, but also to confer the power to shape society in desired directions making use of new informational tools. Rather than merely connecting to an already existing technological formation, therefore, it is considered possible to forge a specifically Malaysian conception of information society and economy. The MSC is a "test-bed" for this high-tech Malaysian modernity (Mahathir 1996). The project may be understood as a "technology of nationhood" (Harvey 1996:56) in that it makes the nation visible and knowable through exemplary forms of Malaysian informational living and working. It is a specifically urban exemplar of national progress and, as such, follows a long line of "visions of perfection" (Markus 1985) conflating technological utopias with urban ones (see also Fishman 1977; Hall 1988; Holston 1989). The MSC thus promises informational solutions for familiar aims: harmonious relations between human beings and between humans and Nature, as well as a liberation from tiresome and time-consuming chores. And the project exudes the "high-modernist" faith (Scott 1998:4) that these aims will be achieved—finally, this time—if new technologies are administered prudently and appropriately.

It is specifically state-led development that is considered the appropriate means to ensuring the desired informational transition. Malaysia has a long tradition of state intervention associated, most notably, with the NEP, which introduced "affirmative action" (Gomez and Jomo 1999:23) to bring Malay economic participation in line with the other

main ethnic communities. This trend continued into the beginning of Mahathir's premiership in the 1980s, the Heavy Industries campaign, for example, promoting a strong state role in the organisation of big business (Bowie 1991). Selective interventionism has persisted despite the privatisation and liberalisation that has accompanied much of the rest of the Mahathir era (Gomez and Jomo 1999). One reason for the persistence of this mode of government is the existence of regional developmental state exemplars. It is the way in which national aims and means of development have been shaped in relation to regional discourses and transformation to which I now turn.

Regional Exemplars and Challenges

During much of the 1980s and 1990s, Malaysia was discursively realigned as part of a new Asia—or, frequently, "East Asia"—that compelled continual economic and technological upgrading. A popular analogy for the "miraculous" (World Bank 1993) economic growth of the region was that of a ladder (World Bank 1994). After Japan, on the top rung, came the "Tiger economies", followed by Malaysia and other Southeast Asian manufacturing countries on the third level, followed in turn by a recently added fourth layer consisting of countries such as China and Vietnam. While much of the imaginative work of region construction emanated from "outside" (Dirlik 1998) and foreign policy initiatives played an important part in fostering a sense of regional solidarity and identity, it was an imperative of economic and technological transformation that came to define participation in the region. Given Malaysia's position in the regional order, this may be understood in two ways.

First, especially in the 1990s, efforts to develop indigenous technological expertise in Malaysia appear to have been given regional impetus "from below". Malaysia is understood to be increasingly challenged by other countries entering manufacturing industries: India, China, Vietnam and Indonesia have locational advantages over Malaysia in labour terms, not only because of the relatively high wage levels of the latter, but also because of its growing shortage of labour (Edwards 1999). Writing in the mid-1990s, Rasiah (1995:90) concluded that Malaysia had reached a "ceiling position within a labour-intensive phase" and must therefore move to a "higher technological niche". The development of high- and especially information technologies was considered the appropriate means of elevating Malaysia to a more advanced level than its regional manufacturing neighbours. There is a broad political consensus in Malaysia on the necessity of this transformation—if not on the way in which it should be implemented—and, indeed, the leader of the parliamentary opposition played a key role in the formulation of the so-called National Information Technology Agenda (Lim 1997).

Second, from "above", there are celebrated regional exemplars of economic success. Mahathir declared his intention to "Look East" for lessons in industrialisation early in his premiership (Smith 1999), though these initially applied primarily to manufacturing. The Heavy Industries campaign referred to above was based on the South Korean experience of industrialisation. However, the MSC is putatively part of Malaysia's Vision 2020 *post*industrial push, a "step beyond even heavy industry" (Milne and Mauzy 1999:76). Expansion into high- and information technology sectors has been recognised as a vital factor in the economic success of Asian countries such as Japan, South Korea and, more recently, Taiwan (Daly 1994). Japan has a wealth of experience in the construction of integrated Science Cities (Castells and Hall 1994), and Japanese corporations such as NTT played key roles in the planning of the MSC, particularly Cyberjaya (see, for example, NTT Urban Development Company and Federal Department of Town and Country Planning 1997). It is a moot point whether this will enable Malaysia to reach the highest level of regional development or whether it reflects and perpetuates Japanese regional commercial domination in a relation of "cybercolonialism" (Hutnyk 1999). What is in less doubt is that, from industrialising into high-tech times, the state has retained a high-profile role in national economic development. While the diversity of East and Southeast Asian political economies perhaps defy meaningful generalisation (Woo-Cumings 1999), Malaysia has, in many ways, sought to replicate the interventionism associated with regional developmental states.

However, it is possible that exemplars of national progress are no longer to be found regionally. First, even prior to the recent crisis, celebration of rapid Asian economic development had been tempered by growing (self)doubts over Asians' ability to innovate, to "think" (Mahbubani 1998). Malaysian policy-makers recognise technological innovation and creativity as crucial for success in a global economy based on information technology (Huff 1999), and this means not so much—or, at least, not only—a disciplined and regulated workforce (cf Khoo 1992), but the fostering of what has been referred to elsewhere as "*Homo Silicon Valleycus*" (Thrift 2000:688). Second, despite Mahathir's antiliberal rhetoric (P T Kelly 2001) and the introduction of capital controls, Malaysia's post-crisis reforms are quietly IMF-consistent. And this is not merely a crisis response but is, in fact, consistent with a much longer trajectory of liberalisation in economic terms (Gomez and Jomo 1999). Appropriate regional and national economic policy is defined in relation to hegemonic discourses of capital that are global in scope.

Neoliberal Discourses of Globalisation

Globalisation does not merely denote material social and economic changes facilitated by ICTs. It is also a powerful set of discourses

constructing certain policies and strategies as appropriate or even necessary (Gibson-Graham 1996; P T Kelly 1999; Ó Tuathail, Herod and Roberts 1998). Typically, a globalising world is depicted as one in which intensified interconnectedness and the speed-up of transactions through technological change define a period of massive uncertainty such that "entrepreneurialism", "flexibility" and "creativity" are offered as solutions to the "problems" of globalisation (du Gay 1996; Thrift 1998) and a "new economy" (OECD 2000). It is in this discursive context that the production of high-tech urban spaces is rationalised as a valid national economic strategy. City-regions have become the "motors of the global economy" (Scott et al 2001:15), in part because they frequently possess the requisite techno-infrastructure for global economic connectivity, but also due to their apparent ability to generate "interaction and learning sites" that ferment processes of innovation (Crevoisier 1999:67; see also Bunnell and Coe 2002). The "logic of globalisation", as Kevin Robins (1999:42) has pointed out, is such that "for national governments, it has become imperative to 'contain' such a metropolitan node".

More generally, however, hegemonic discourses of globalisation associated, in particular, with the World Bank and World Trade Organisation imagine neoliberal policies as an integral part of the "right kind" of environment for technological innovation and economic dynamism (Khor 2000). Mahathir's speech at the official launch of the MSC, for example, was reminiscent in both content and phraseology of neoliberal discourses of globalisation. The Information Age of which the MSC is said to form part is one in which "borders are disappearing due to the ease of global communications, capital flows, the movements of goods and people and location of operational headquarters" (Mahathir 1996:np). The more specific influence of Kenichi Ohmae is also apparent here. For Ohmae, who, in addition to being Mahathir's economic adviser in the mid-1980s, remained a close confidant of the Prime Minister in the mid-1990s, the appropriate objective is one of making Malaysia attractive to mobile capital in the "borderless world" (*BBC2* 1998; Ohmae 1992). In part, of course, this is to be achieved in the MSC by the creation of an appropriate high-tech infrastructure: "high-speed single backbone integrated telecommunication network to cater for advanced value-added telecommunications services and multimedia services" (Mohamed Arif Nun, Deputy Director General of the Malaysian Institute of Microelectronic Systems, cited in Corey 2000:139). A pervasive liberalising faith is reflected in the incentives and benefits for investors in the MSC's Bill of Guarantees. The validity of the strategy is in turn guaranteed by the tacit support of the corporate "great minds" (Hutnyk 1999) assembled in the MSC's so-called International Advisory Panel (IAP).

Appropriate national aims and means of high-tech development, however, are not in any simple sense determined by supranational discourses—nor even by the vested interests peddling them on the IAP—but are constructed relationally. On the one hand, in speeches on the causes of the recent economic crisis (Mahathir 1998a), Mahathir railed against the "religion" of the free market for punishing those who do not "believe" or "practise". On the other hand, neoliberal discourses of globalisation fit in well with Mahahirist social and economic thinking (Jomo 1995). Through his book, *The Malay Dilemma*, written in the late 1960s, Mahathir (1970) established a reputation as an advocate of state intervention, ostensibly to eliminate wealth disparities between ethnic communities. However, *The Malay Dilemma* also gives evidence of long-held conservative Mahathirist economic ideas (Khoo 1995). Mahathir (1970) characterised a healthy society and economy as one in which there is "free enterprise" and economic competition between individuals and groups. And he came to power in 1981 expressing a belief that rather than merely being supported by the state—as in the NEP—Malays should *berdikari*, an abbreviation for *berdiri kaki sendiri* ("stand on their own two feet") (cited in Das 1981:30). It is unlikely, however, that Malays brought up in the belief that only state intervention could prevent total ethnic Chinese domination of the Malaysian economy would share Ohmae's assertion that "it's the regulators we have to fear" (Ohmae 1992:xiv). As Jomo (1994:4) points out, any move away from NEP is threatening to a Malay community "led to believe that all the gains they have made since 1970 have been due to the NEP". Mahathir's economic convictions that find expression in the MSC thus run against the very ethnic regime of representation with which he is so frequently associated.

The MSC is therefore rationalised in terms of policies that seemingly continue to erode the state regulation characteristic of Malaysian political economy since NEP. Political/communal opposition is bypassed by limiting liberal economics to one 50-by-15-km corridor, as in earlier FTZs. Indeed, it might be objected that the MSC is little more than an FTZ with a high-tech spin. However, the project is also ostensibly associated with political and economic dimensions of liberalisation. On the one hand, the Bill of Guarantees for MSC status companies promises no Internet censorship in Malaysia, a move that has been accompanied by official endorsement of "self-regulation" among citizens.[6] On the other hand, this apparent move towards liberalisation in cultural and political domains sits uneasily alongside the authoritarianism and decidedly illiberal political manoeuvres during the financial crisis (Jomo and Gomez 1999). High-tech development in Malaysia, therefore, is to be understood in terms not merely of the global normalisation of neoliberal strategies, but also of how these are

reworked in variously antagonistic and harmonious relation with state political and economic prerogatives.

Multimedia Utopia? The Myth of Universal National Benefit

State and corporate high-tech discourse and representation imagine the MSC as a "multimedia utopia" benefiting all Malaysia and all Malaysians. Mahathir (1998b:30) has described the MSC as "a pilot project for harmonising our entire country with the global forces shaping the Information Age". For those not convinced of the possibility of avoiding negative social consequences associated with high-tech living elsewhere—what, in the case of Silicon Valley, has been termed the "dark side of the chip" (Siegel and Markoff 1985)—there is the assurance that the MSC is, as yet, only a "test-bed" (Mahathir 1996). Any negative consequences are "contained" (Mahathir, cited in Abdullah and Sapiee 1997:3) and new social formations experimented with before being extended to the rest of the nation. The belief that such a universal (national) extension is possible rests on an understanding of national space as a discreet, undifferentiated unit that benefits uniformly from applications of new technology within the MSC test-bed. There is an appeal here to broader notions of technology resulting in the "death of distance" (Cairncross 1997), thus making possible benefits throughout the national whole.

Thus, in MSC discourse, it is specifically *national* life that is being freed from the constraints of space and the frictional effects of distance. Smart schools, for example, will benefit citizens in all areas because "information can be disseminated throughout the nation" (Mahathir, cited in Krishnamoorthy and Surin 1997:1). And electronic government is described in terms of the irrelevance of physical distance to interaction between state bureaucracy and citizens made possible by improved information flows and processes (Ariff and Chuan 1998). Government processes being "re-engineered" in Putrajaya will ultimately be rolled out to all national citizens in all parts of the country, such that "it will be possible to go to a kiosk in a shopping mall or use the PC at home to renew licenses and pay electricity bills in one simple session" (Mohamed Arif 1996:1). The apparent role of ICTs in integrating national space and promoting "areal uniformity" (cf Graham 1998:168) was demonstrated by the so-called Teleconferencing Dialogue held in April 1997, in which the Malaysian Prime Minister was linked to 13,000 Malaysians in twenty-eight locations across the nation. Not only was each state represented, but "those who posed questions came from all walks of life" (*Sun* 1997:1). Overcoming spatial difference within the national territory through new technology is, therefore, also imagined to be bound up with democratic and egalitarian possibilities.

The notion of universal national benefit from high-tech development in the MSC test-bed rests upon what has been referred to more generally as "an overdrawn opposition of the real and the virtual" (Crang, Crang and May 1999:1). While new applications of information and multimedia technology in the MSC are frequently described in terms of "liberation" from considerations of spatial location within the national territory, electronic technologies are dependent upon complex physical infrastructure in real places. In the words of Stephen Graham (1988:174), the simultaneous production of electronic and material space means that new information technologies "actually resonate with, and are bound up in the active construction of space and place, rather than making it somehow redundant". One way of problematising notions of universal (national) benefit in authoritative high-tech discourse, therefore, relates to the broad regional geography of major investment in "Intelligence Infrastructure" (Mohamed Arif 1996:3). Although the MDC (1997b:10) envisions that, by the year 2020, there will be "12 intelligent cities linked to the global information highway", social science research has suggested that ICTs often only serve to increase the importance of existing urban areas (Castells and Hall 1994; Graham and Marvin 1996). While the MSC cities are being constructed from scratch, they form part of what prior to the MSC had been understood as a "southern corridor" of the Kuala Lumpur Core Urban Region (KLCUR) (Lee 1996). The location of the new Kuala Lumpur International Airport (KLIA) at the southern end of that corridor, in particular, is a key physical infrastructural prerequisite to the MSC's success.

Aside from the uneven regional geography of ICT infrastructure provision and its concentration in the main metropolitan region, social and spatial inequality is compounded by the private sector development of urban high-tech spaces. Much of the financial burden for constructing this new physical infrastructure has been offset by the government through public-private partnerships, and this leads to another dimension of unequal access to multimedia futures. The divisive and exclusionary effects of "privatised" urban space were the subject of public debate during fieldwork in 1997. An article in *The Star*, an English-language daily newspaper, posed two critical questions: "Will quality urban living be privatised to the highest bidder? Will the new dream cities of Malaysia become the domain of the privileged?" (Sia 1997a:1). The illustration on the first page of the article contrasts grim, grey Gotham City-style high-rise blocks and pollution-billowing chimneys under clouds of smog or haze with a sealed and purified lifestyle utopia. Entry to "Luxuriaville"—its clear blue skies, green spaces, detached houses, clean air and, we presume, high-tech convenience—comes at a price: the "one million Ringgit" cost of entry is clearly intended as a sum well beyond the means of ordinary

Malaysians. While Putrajaya and Cyberjaya are imagined in dominant discourse as constitutive of a high-tech Malaysian urbanity into which the whole nation can eventually be mapped, therefore, MSC developments are here revisioned as a privatised space excluding the majority of the population.

There is, of course, nothing uniquely informational to exclusion associated with privatised urban space (Davis 1992; Jackson 1998), or with social and spatial segregation arising from middle-class flight from the city proper (Garreau 1992; Hannigan 1998). In part, this is precisely the point: while commonly understood in terms of the inevitable irrelevance of physical location, high-tech development perpetuates existing social and spatial dividing practices. However, the MSC also exemplifies how the pervasive ideology of informationalism adds a specifically high-tech dimension to the legitimacy (and urgency) of large-scale urban and infrastructure development, the social consequences of which are highly unevenly felt. The remainder of the paper is concerned with exemplifying such processes, drawing on fieldwork carried out in Putrajaya in 1997.

Displacement of Perang Besar Plantation Workers: The Myth of Egalitarian Incorporation

The planning of Putrajaya began in 1993 following a report by the Economic Planning Unit of the Prime Minister's Department, which recommended the relocation of government machinery to a new site outside of Kuala Lumpur (Mohamed Arif 1997). Putrajaya Corporation was established two years later to administer and manage the "intelligent", "garden" city (Putrajaya Corporation 1997). The master plan for the city covers some 4400, ha centred upon an 8 km by 2 km core area surrounded by a newly constructed lake. Putrajaya is being built by Putrajaya Holdings Sdn Bhd—a company that is 40% owned by Khazanah Nasional, the government's investment arm, 40% owned by Petronas, the national oil company, and 20% owned by Kumpulan Wang Amanah Negara, a government trustee body—in partnership with five leading Malaysian developers (Putrajaya Corporation 1997). While, in common with much of the rest of the MSC, Putrajaya is officially described as a "greenfield project" (Mohamed Arif 1996:1), the environmental impact assessment for Putrajaya and surrounding areas carried out by Universiti Pertanian (now Universiti Putra) Malaysia (1995) identified four plantation estates on the site with a total population of around 2400.

With 177 families, or around 1500 people, and covering more than 1,700 hectares, Perang Besar was the largest of the Putrajaya estates (Figure 2).[7] Operations began in the 1930s and, at the time when employment termination notices were given out in 1995, consisted of crops of cocoa and rubber as well as oil palm. The law as it stands

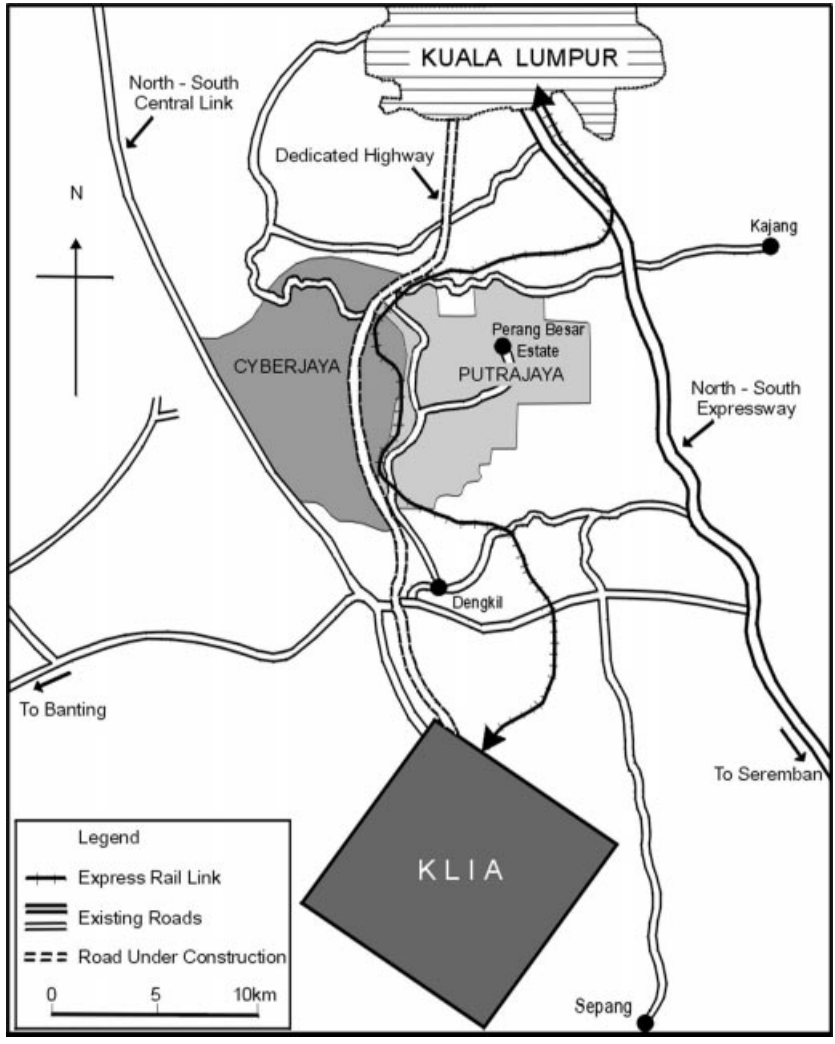

Figure 2: Putrajaya and Perang Besar Plantation Estate

requires the employer to pay only twenty days of wages per year of work to the displaced worker (Sivarajan 1995:52). However, in common with the other Putrajaya estates, there was considerable wrangling over estate residents' compensation involving not only the plantation company, Golden Hope, and the federal government,[8] but also the Selangor state government (because the relocation was likely to be in Selangor Darul Ehsan), the Malaysian Indian Congress (MIC) (because the workers are classified as "Indians"), the National Union of Plantation Workers (NUPW) and a number of NGOs. After the estate company ceased operations in 1995, residents were forced to find

work outside the estate while negotiations took place over compensation and resettlement. During this time, conditions in the estate deteriorated: public transport was not only cut back, it also became much more expensive; electricity, provided by Putrajaya Holdings after the estate company left with the original generator, was continually being cut off (interview with Arayee 1997) and water pumped from an increasingly polluted river looked—but certainly did not taste—like tea (interview with Kamala 1997). Inflation associated with the then "booming" development in the area reportedly left Indian plantation communities more generally wondering if they could afford to celebrate their annual "Festival of Light", Deepavali (Sia 1997b). Nonetheless, what worried residents most was the prospect of resettlement. Initial plans for resettlement included sites in Kuala Selangor and Rawang, both of which are on the other (northern) side of Kuala Lumpur from Putrajaya and so beyond the bounds of the MSC (see Figure 1). Resettlement plans thus suggested the physical exclusion of plantation communities from the high-tech urban environments replacing their homes.

The displacement and marginalisation of plantation communities through the construction of the federal government administrative centre—the planning of which, in fact, preceded the MSC concept—is, of course, not directly attributable to high-tech development. At one level, plantation workers' land ownership problems are a colonial legacy. While Tamil migrant workers came to perform a distinct function in the colonial Malayan division of labour, they owned no land in racially divided colonial space; their place in colonial society amounted to no more than their employment (Sandhu 1969). And, to the extent that the corporate-style agriculture introduced by the British still predominates, this uncertain position remains largely unchanged in contemporary Malaysia (Sioh 1998). For plantation workers, therefore, the closure of the four Putrajaya estates meant loss of shelter as well as loss of employment. Workers thus displaced are certainly not able to afford "intelligent" housing at market prices. Again, such financial exclusion is hardly unique to the construction of high-tech spaces. Indeed, even before the closure of the Putrajaya estates, plantation workers were known to make up a significant proportion of the squatter population in Selangor state (Sivarajan 1995). Exclusion associated with this national IT infrastructure is bound up not only with legacies of colonial division of labour/space, but also with the ongoing developmental trajectory of "privatizing" Malaysia (Jomo 1995).

It is unsurprising, therefore, that the chief "winners" and "losers" in Putrajaya replicate those of Malaysia's political economy more broadly. Each of the developers involved in the construction of the city—Hong Leong Properties, Malaysian Plantations, Malaysian Resources Corporation Berhad, Peremba and SP Setia (Putrajaya

Corporation 1997)—had prior government links, either in terms of personal connections between corporate figures and the United Malay National Organisation (UMNO), the dominant partner in the ruling political coalition, or through state trust fund share ownership, or both (see Gomez and Jomo 1999). And, despite suggestions that government-linked private sector companies' involvement in Putrajaya was primarily in the "national interest" (interview with Mohd. Nasir Shaari 1997), pre-crisis commercial analyses considered that participation in Putrajaya—whether as property developers, real estate investors or in construction—would be extremely profitable (HG Asia 1997). Other winners included the plantation companies that owned the land. For example, Golden Hope reportedly received a "windfall" of about RM (Ringgit Malaysia) 450 million in compensation for the sale of the Perang Besar estate (Tan Kah Peng 1994). A number of plantation companies, including Golden Hope, have also diversified into property development (*The Star, Business* 1997). Plantation workers, in stark contrast, embody a more permanent sectoral redundance.

Nonetheless, Putrajaya and the social and spatial exclusion associated with it *are* bound up with the physical and discursive construction of specifically high-tech futures. In the first place, infrastructure and real-estate development in Putrajaya is explicitly concerned with the facilitation of information economy and society in Malaysia. In addition to providing "a new site with facilities and infrastructure for a more efficient government" (Azizan, cited in Putrajaya Corporation 1997:1), Putrajaya has a long association with "the most sophisticated and advanced information technology" (Jaafar 1995:5). Indeed, it was the planning of IT requirements for Malaysia's new electronic administrative centre that gave rise to the MSC concept (Mohamed Arif 1997). Moreover, the construction of infrastructure estimated to cost some RM 20.09 billion (HG Asia 1997) and extensive landscape transformation—not to mention the resultant displacement—are legitimised by authoritative discourses of technology and globalisation that posit "high-tech" as a national necessity. Land that was at best "empty" space, but that in state terms more likely signified an obsolescent economics of commodity dependence, was thus imagined as being "developed" (cf Crush 1995) to facilitate Malaysia's passage to the Information Age.

Plantation workers' exclusion from this development may also be understood in terms of a "moral geography" of the imagined ideal high-tech landscape (cf Matless 1997). The government has made it mandatory for developers to build at least 30% "low-cost" (that is, not exceeding RM 25,000) units in all housing projects (Salleh and Lee 1997), but no such units were offered to residents of Perang Besar. There may be a communal or "ethnic" dimension here. First, in the context of Malaysia's ethnic politics, Indian plantation workers are

represented by the MIC, a party which is not only very much a weak junior partner in the ruling coalition, but also one dominated by an urban and business professional class that has tended to focus on its own interests to the neglect of plantation issues (Ramachandran 1994). Second, the MSC—and Putrajaya in particular, with its strongly Islamic urban design references—have been cast by some as a project for specifically Malay-Muslim integration into information economy and society (Ong 1999). However, more simply, it might be suggested that "low-cost" simply does not fit in with Putrajaya's proponents' utopian urban aspirations to "world-class", "wired" homes. Some 10,000 of Putrajaya's 67,000 housing units—or 15%—are now dubbed "affordable housing", but at RM 49,000 (personal communication with Jebasingam Issace John 2000), these are well beyond what Perang Besar residents can afford. In a rather different way, the right to inclusion in this ordered high-tech urbanity is dependent upon the possession and demonstration of appropriate skills and knowledge for meaningful participation in the global information society and economy. Plantation workers are among those groups labelled "out of place" on account of their presumed personal and collective inability or unwillingness to realise themselves in appropriate ways for high-tech times (cf Cresswell 1996; Rose 1996).

Conclusion

This paper has put forward a critical geographical analysis of high-tech development in the Multimedia Super Corridor. It argues that the "multimedia utopia" elaborated in official representations of the MSC is *not* a future Information Age Malaysia into which the whole (national) population may be incorporated. Aside from regional disparities in the provision of infrastructure that supports informational living and working, sections of the population—exemplified here by the Perang Besar plantation workers—have been excluded from, rather than incorporated into, utopian high-tech urban development. On the one hand, it might be suggested that the physical displacement of plantation villagers resulting from the construction of Malaysia's new federal government administrative centre says less about the nature or impact of information economy per se than about negative impacts associated with any modern developmental project. On the other hand, I have sought to show how large-scale infrastructure development is rationalised and legitimised in relation to hegemonic discourses of globalisation and technology that imagine "high-tech" development as a national necessity. Even as the stable national political and economic ground upon which large-scale Malaysian public works were founded in the mid-1990s (Harper 1996) gave way under crisis conditions beginning in the second half of 1997, the long-term economic importance of the "information age approach"

and the MSC in particular has only been reaffirmed. Indeed, in the National Economic Recovery Plan (NERP), the MSC project was vaunted as "the next engine of growth and is fully backed by the Government" (Multimedia Development Corporation 1999).

This connects to a more general point raised in this paper concerning the role of the (national) state in high-tech transformation. An understanding of social costs and inequality associated with development for the global information economy and society in distinct contexts cannot be simply divined from pervasive discourses that are global in scope, or reduced to the effects of an all-powerful space of flows. The paper has highlighted the role of the Malaysian state in both articulating national aims and means of development in relation to discourses at other scales and, more directly, constructing high-tech spaces. Of course, as Asian "miracle" turned to "crisis", the very developmental state characteristics once used to "explain" regional social and economic success came to be regarded as the cause of failure, often under the sign of "crony capitalism" (Jomo and Gomez 1999). Putrajaya itself has become the metasymbol of a state capitalism synonymous with self-legitimation, lavish monumentality and lack of transparency (Maznah 2000), rather than with promoting the social accountability of capitalism. Moreover, Mahathir's reluctance to cut back large-scale infrastructure development projects such as Putrajaya suggest to some an imprudent attachment to "pet" projects, given the economy's perceived overextension in construction and infrastructure sectors (Sardar 1998, 2000).

This paper has likewise focused on infrastructural implications, rather than, say, the software or hardware aspects of multimedia and information technology development. This is in part a reflection of the fact that, during fieldwork in 1997 at least, physical infrastructure development was the most tangible evidence of nascent high-tech Malaysian futures in the MSC. At the same time, however, the paper serves as a reminder of the dependence of information society and economy on physical infrastructure in "real" places, a relationship all too readily overlooked in the hyperbole over ICTs and the supposed "end of geography". As has been shown, in 1997, the path to multimedia utopia in the MSC appeared to be one of literally clearing those people and places that did not "make the grade" for the utopian Malaysian society to be founded on new urban techno-infrastructure.

Yet as the high-tech economy has taken shape in the MSC, a rather different—though hardly unfamiliar—pattern of uneven development has arisen. The Putrajaya plantation estate communities were ultimately rehoused in low-cost flats in Dengkil less than 5 km from the new administrative centre and within the MSC (see Figure 2), although it remains uncertain as to whether they will be allowed to

remain there (personal communication with A Sivarajan 2000). Some former residents of Perang Besar and the three other Putrajaya plantation estates *have* been incorporated into the Malaysian information economy—as security guards, gardeners and cleaners. This is the working reality of the information economy, one that differs markedly from the "much-romanticized laboratories of the brave new technological future" (Ross 1999:47). While there is a danger of romanticising, in turn, plantation life vis-à-vis even low-end, unionised service employment, certainly the information economy in Malaysia, as elsewhere, is dependent precisely upon people who are unable to realise themselves as the kinds of mobile, skilled and technologically innovative knowledge workers imagined in authoritative discourse (Sussman and Lent 1998). For these people—including but certainly not limited to former plantation estate workers—everyday participation in the information economy serves to perpetuate an existing marginal position in Malaysian society. It remains a "high-tech fantasy" (cf Massey, Quintas and Wield 1992) that all Malaysia and all Malaysians can be equitably incorporated into the multimedia utopia elaborated in representations of Putrajaya and high-tech MSC discourse.

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Endnotes

[1] While in other national contexts the former may seem unremarkable, in Malaysia ethnic quotas—specifically the employment of a minimum proportion of *bumiputera* (constitutionally "indigenous") staff—have been in operation since the early 1970s.

[2] The four sources drawn upon by MDC here are worthy of note: The Economic Planning Unit is part of the Malaysian Prime Minister's Office; McKinsey are the management consultancy firm that advised the Malaysian government on economic strategy in the early and mid-1990s; and the International Monetary Fund and the World Bank, of course, are key global institutions prescribing neoliberalism for both national and international political economies (Khor 2000).

[3] The Sixth Malaysia Plan period, 1991–1995, was described as "a momentous period of rapid progress" with an average annual increase of 8.7% (Malaysia 1996:3).

[4] There is a further point to be made here concerning the audience for the speeches from which this passage was taken. The United Malays National Organisation

(UMNO) is the dominant partner in the Barisan Nasional ("National Front") ruling coalition—the other two major partners being the Malaysian Chinese Association (MCA) and the Malaysian Indian Congress (MIC), which represent the Chinese and Indian communities respectively—and represents the interests of the majority Malay community. From 1970, Malay interests were promoted through the so-called New Economic Policy (NEP), ostensibly to bring their economic participation and wealth in line with those of the other main ethnic communities (Gomez and Jomo 1999). In part, therefore, notions of the need for the acquisition of new skills and technology are bound up with specifically Malay nationalist discourses within an economically Chinese-dominated Malaysia as much as with postcolonial national imperatives of liberation from hegemonic global Western economic and political interests.

Two somewhat paradoxical trends are in evidence here. On the one hand, the increasingly external orientation of Mahathirist nationalism suggests the possibility of a multicultural post-NEP Malaysia in which the technological and economic imperatives of Malays within Malaysia "fold into" those which will enable postcolonial Malaysian success in a Western-dominated global economy (Khoo 1995; Bunnell 2002). On the other hand, however, a post-NEP Malaysia may be concerned less with reducing communal difference than precisely with the promotion of a "new Malay" (*Melayu Baru*), one free from dependence on state support and able to use new technology to construct a specifically Malay/Muslim information society, a Malay/Muslim modernity (Kahn 1998; Sloane 1999).

[5] A company seeking MSC status and eligibility for MSC incentives must be "a provider or a heavy user of multimedia products and services" and "employ a substantial number of knowledge workers" (Multimedia Development Corporation 1996a:12).

[6] Indeed, during fieldwork, the then Minister of Information, Mohamed Rahmat—previously a noted advocate of Internet censorship and famed for decidedly illiberal outbursts against Western rap music—confirmed that "basically what we want to do is to develop self-censorship within our population" (cited in *Star* 1997:3).

[7] I was able to visit Perang Besar with a nongovernmental organisation (NGO) called Community Development Centre (CDC). CDC was set up by a group of students from Universiti Kebangsaan Malaysia (UKM) in the mid-1980s. It now includes members both within and outside the university and deals predominantly with labour, resettlement and compensation issues (interview with A Sivarajan 1997).

[8] According to S. Arutchelvan, a volunteer with a local NGO, SUARAM (Suara Rakyat Malaysia, "Voice of the Malaysian People"), the federal government and Golden Hope each initially claimed compensation to be the other's responsibility, the government claiming that the plantation company as the employer of estate workers is responsible for their welfare, and the plantation company saying that since the government is now the owner of the land and the estates, compensation is their responsibility (interview with S Arutchelvan 1997).

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