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From Colonial City to Globalizing City? The Far-from-complete Spatial Transformation of Calcutta

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Like the proverbial Hindi deity, Calcutta has had many names: "city of palaces" (in the 19th century), "city of dreadful night" (Kipling's description at the turn of this century), "city of joy" (in the dreadful book and movie of recent years), "dying city" (by the late Rajiv Gandhi, Prime Minister of India 1984–89); its recent rulers have proclaimed that they would like the city to be known as the "gateway to the Asian tigers" (in media promoting the investment virtues of the city and the state). In postmodern parlance these many names reflect the many histories and realities of the city – its colonial past, industrial decline, and hope for resurgence in the present and near future. Interestingly, these names also hint at the many geographies of the city – its palaces and hovels, wealth and poverty – and, analyzed chronologically, the names offer some insight into the spatial structure of the city.

This paper, like the others in the book, focuses on intra-urban (or intra-metropolitan) distribution of wealth and poverty, using Calcutta as an Indian case study. The editors of this book asked an intriguing question: "Is there a new spatial order within cities?" This is really a two-part question: one, is there something new about the spatial structure of cities today and tomorrow, something fundamentally different from the same cities in the past; and, two, is this a generalizable model *worldwide*? For much of this paper I will try to answer the first part with reference to Calcutta, leaving enough signposts along the way to be able to deal with the second question at the end.

I, and I believe others in this volume, use a somewhat different analytical framework from the one suggested by the editors. This should not be

surprising since the default model and hypothesis appear to be have been proposed, to a large extent, with the "western" city and economy in mind, especially its American variant. This default framework uses the new industrial divide, or the transition to a post-Fordist economy as the fundamental element defining the past and present structure of urban areas. The argument, very simply put, is that industrialization- and manufacturing-led economic growth created the "old" urban structure; deindustrialization- or service-sector-led global economic expansion is in the process of creating a "new" urban structure.

There are a number of reasons why this model cannot begin to apply to "Third World" contexts in general, and its cities in particular. The so-called Third World encompasses a great diversity of development levels, political–economic structures and histories, and levels of integration into the global economy; their city (and country) sizes are diverse, their city functions are rarely comparable to developed nation city functions, their public sector is much more active in urban land markets, the CBD is more important as the locus of employment, rent gradients are more unilinear and steep moving away from the CBD – all factors leading to distinct monocentric cities as opposed to the clearly established polycentric cities of the west. Above all, deindustrialization in the west actually implies its opposite in the Third World, i.e., increased industrialization, presumably in its urban centers. In fact, a more appropriate argument is that there is no singular "Third World" and that perhaps none of the many different political–economic–historical systems that make up the "Third World" bear any resemblance to the system described in the opening hypothesis. This case history is not the place to debate these arguments and questions; the focus is on the Calcutta story as a case history and should not to be used to draw generalizations about India or the Third World. Some of the more serious shortcomings of the editors' hypothesis will be pointed out along the way.

It is clear that the two-stage Fordist/post-Fordist model cannot adequately describe the economic and urban development of India, particularly its colonial cities (and perhaps some other once-colonized third world nations and cities). Rather, a three-stage model may be more appropriate, where the three stages are:

1　colonial economy during the first global period;
2　post-colonial (or command) economy during the nationalist period; and
3　post-command/reform economy, during the second global period.

The relationship between colonization and urban development in the colonized countries has been discussed quite exhaustively (see King, 1976). Many of these cities, usually ports, were created specifically for colonial extraction: i.e., to act as points of transshipment of commodities from the colonized

region and processed goods to it, and as seats of administration. Their primary links were to the international economy rather than to the regional economy.[2]

In the post-colonial or nationalist phase the idea of "development" as opposed to exploitation came to the fore; key ideas such as import-substituting industry, big push, infant industry protection, balanced growth, self sufficiency, etc., dictated the policies of the relatively inward-looking newly formed nation-states. And now, a combination of the failures of import-substituting industrialization in the south and the demand for new markets and production centers in the north, have forced many developing nations *back* to the global market. Post-Fordism does not describe this period as accurately as the term mixed-Fordism does, for large-scale capital-intensive production still has to take place somewhere – in the current global shift, in an ironic turn of events, it is the developing nations which are home to Fordist industry. I argue that these three stages are characterized by distinct modes and relations of production and investment, policy and goals, and consequently they also characterize distinct spatial forms. In the next section I will briefly outline this three-stage history of Calcutta (with the last stage still in its formative phase), and show how the spatial order has been shaped by the dominant ideology of production.

However, the Calcutta story would be poorly understood without mention of two factors that, though not unique to itself, are rather different from developed nation contexts. First, I must highlight the importance of the size and function of the "informal" sector in Calcutta's economy: by most estimates this collection of urban workers comprises 40 percent or more of the Calcutta labor force, in occupations from garbage collection, material transport, home delivery of consumer products, to small crafts and manufacturing (leather products, printing, etc.). The notion of formal "flexible production and accumulation" (see Storper and Walker, 1989) that some scholars argue is reshaping urban space in the developed world has long been an aspect of the conditions of production in Third World cities like Calcutta. One sub-sector of this informal economy is of particular interest in analyzing the spatial distribution of income and wealth: the domestic servants, ubiquitous in upper- and upper-middle class residences, have lived and continue to live in close proximity to their employers. I will argue that it is essential to have an understanding of the spatial distribution of the informal sector, particularly the domestic service element, and its relationship to capital and technology, to understand the geography of poverty and affluence in Calcutta.

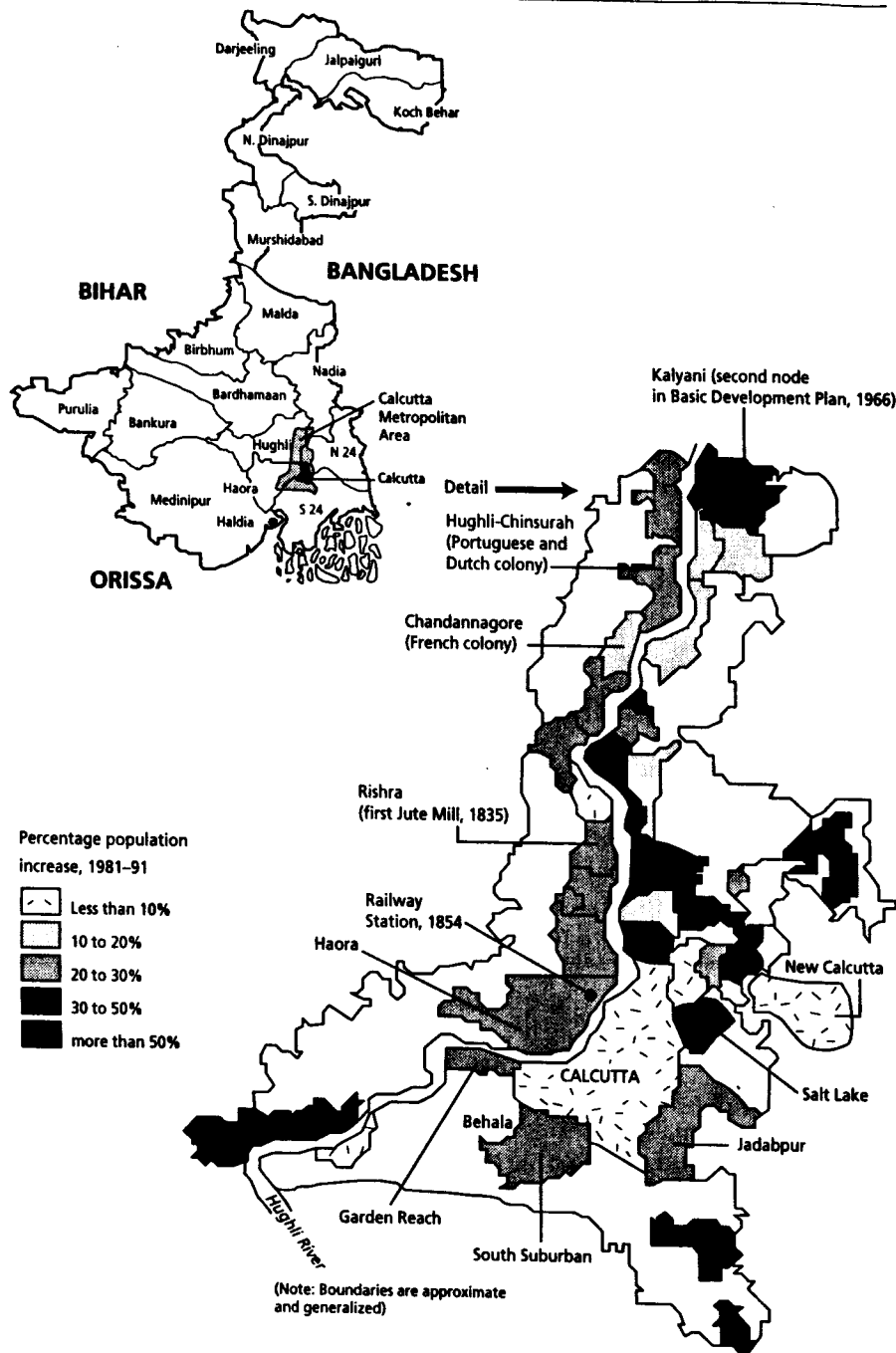## A Brief History of Calcutta Metropolis

Calcutta is the capital of the state of West Bengal, and the primate city of Eastern India, with a hinterland of over 220 million, mostly poor rural

population (comprising the states of Bihar, Orissa, Assam, etc.). Calcutta's metropolitan population of about 11 million (it varies with the definition used) is almost ten times higher than that of the second largest urban agglomeration in eastern India – Patna, in Bihar, with a population of about 1.1 million. This is by far the highest primacy ratio of any Indian region. To put it in context, it would be similar to a situation in the United States where after New York with 18 million people, if the second largest metropolis (Los Angeles) had a population of 1.8 million. As shown in Map 4.1, the city is located on the east bank of the river Hughli, considered the "wrong" side because the partition of India at independence in 1947 left much of the hinterland on the west of the river. The city's size and shape have obviously changed over the 300 years of its existence. The size shown in all the graphics here conform to the city's pre-1984 boundaries.[3] The city of Calcutta is small – 104 sq. kms. (excluding the most recent additions) – and extremely congested (the density at the business core is around 95,000 persons/sq. km., reputedly the highest in the world: United Nations, 1993). In the following paragraphs I describe the growth of Calcutta, the city and the metropolis, over the last three hundred years into its present size.

Colonial economy: Calcutta in ascendance

In 1690 an English merchant named Job Charnok arranged to lease three villages (named Kolikata, Gobindapur, and Sutanuti) by the river Hughli in order to set up a trading post. In 1698 Fort William was established by the river for defensive purposes, and a large open area was cleared around the fort for military engagements. The fort and the open area (called Maidan) formed the core of the city that emerged rather rapidly. The English traders' territorial expansion soon brought them into conflict with the local rulers, and a decisive battle in 1757 at Plassey (about 120 kms. north of Calcutta) left the victorious traders in sole control of the Bengal region. In 1763 a large area made up of Bengal (including present day Bangladesh), Bihar, and Orissa, was placed under the control of Fort William, or the territorial domain of Calcutta. In 1780 work began on building a marine yard and dock in Kidderpore, but the effort was abandoned temporarily and taken up later. By this time Calcutta had become a significant trading and administrative center, and in 1794 the Governor General of Bengal Province, Lord Cornwallis, decided the official delineation of the city boundaries.[4]

In 1835 industry began in the Calcutta region, but not in the city: the first jute mill was established in Rishra, a suburb (for lack of a better term).[5] Jute, used for making bags, carpets, and low cost clothing, became the mainstay of the region's economy till the middle of the 20th century. Other jute mills were established (usually) along the west bank of the river, towards the north

Darjeeling
Jalpaiguri
Koch Behar
N. Dinajpur
S. Dinajpur
Murshidabad
BANGLADESH
BIHAR
Malda
Birbhum
Nadia
Bardhamaan
Calcutta
Metropolitan
Area
Purulia
Bankura
Hughli
N 24
Medinipur
Haora
Calcutta
Haldia
S 24
ORISSA

Kalyani (second node
in Basic Development Plan, 1966)

Detail ➡

Hughli-Chinsurah
(Portuguese and
Dutch colony)

Chandannagore
(French colony)

Rishra
(first Jute Mill, 1835)

Percentage population
increase, 1981–91

Less than 10%
10 to 20%
20 to 30%
30 to 50%
more than 50%

Railway
Station, 1854
Haora

New Calcutta

CALCUTTA

Salt Lake

Behala

Jadabpur

Garden Reach

South Suburban

(Note: Boundaries are approximate
and generalized)

Map 4.1   Calcutta City and Metropolis: regional and historical context

of the city. Thus, industry in Calcutta began in the suburbs and continued to locate in the suburbs through another 100 years of colonial rule and 50 years of independence. In 1854 Haora station was built on the "correct" side or west of the river, and in 1880 steamships began arriving at the now complete Kidderpore docks. By the end of the 19th century Calcutta was a powerful metropolitan center, and the British capital in India (often called the second city of the British empire) – a city of palaces and hovels. In 1912 the capital was shifted to Delhi, and a period of stagnation began for Calcutta and Bengal. Some engineering industry (medium scale metal and iron works) owned largely by British people did start locating in the industrial belt along the river,[6] but the world demand for jute products was on the decline (interrupted only by increased demand during the two world wars).

The command economy: Calcutta in decline

Independence in 1947 was especially traumatic for Calcutta. First, religious strife led to a massive migration of Hindus from the newly formed East Pakistan to the city; there was some Muslim out-migration, but in smaller numbers. Second, a significant portion of Calcutta's hinterland (mainly the jute growing region) now became part of another, hostile country. Despite these problems the city was in an enviable position by Indian standards: until the mid-1950s West Bengal was the leading industrial state in the country with established economic infrastructure and manufacturing industry (automobiles, chemicals, consumer non-durables, etc.), and the highest per capita income levels in the country (which has since declined to rank seventh). It was also clear, however, that the city and the region were in decline. Delhi had long replaced Calcutta as the political capital, and now Mumbai began replacing it as the economic capital of India. Hastening this decline was the Freight Equalization Policy of 1956 which equalized prices of "essential" items like steel and coal nationwide, while prices of private-sector produced items (like textiles) were not controlled. The eastern region, the center of coal and steel production, was hardest hit.

The post-colonial economy's fundamental thrust was toward import substituting industrialization. In keeping with the dominant development paradigm of the time (see Harrod, 1948; Lewis, 1954; Domar, 1957), the emphasis was on industrialization-led economic growth, infant industry protection, and heavy state involvement in the ownership of key industrial infrastructure sectors like power generation, iron and steel, etc. (Ahluwalia, 1985). This heavy Fordist industry tended not to be located in the existing core cities (like Calcutta, Mumbai, Delhi, or Madras [now Chennai]), but in smaller urban areas, lower in the urban hierarchy (like Ahmedabad, Pune, etc.), or in newly created potential "growth centers" (like Durgapur, Raurkella, etc.)[7], or (in the case of small scale manufacturing) in the suburban industrial belts around

the old colonial cities. The core cities continued to serve as centers of regional and/or national administration (with increasingly large bureaucracies in the public sector, and expanding offices of the private sector), trade and commerce, small scale industry, and services in general. That is, the economic functions of the colonial cities in general, and Calcutta in particular, did not fundamentally change after independence; they had largely been non-industrial and service oriented to begin with, and they continued to play these roles.

In Calcutta, however, unlike the other major cities in India, the hinterland remained generally unindustrialized (with the states of Bihar and Orissa at the bottom of every development index), and very little new industry moved into the agglomeration around the city. This situation was exacerbated by political developments from the early 1960s when centrist, leftist, and radical forces fought for control of the State.[8] Between 1967 and 1971 the State was in political turmoil, with a succession of coalition governments unable to bring order, and in a literally bloody fight the centrist and leftist forces combined to crush the radical, revolutionary movement (see Mallick, 1993). This period (1970–72) was also marked by a second large migration wave – this time of refugees from the newly formed Bangladesh, then at war with Pakistan.

The centrists (Congress Party) ruled with a massive majority till 1977, but were unable to stem the steady decline of the city, the State, or the region. From 1977 the leftists have been in power; they have concentrated their efforts on rural development, particularly in quite successful land redistribution policies (see Kohli, 1987). Calcutta in the meantime has faced what may be called benign neglect. The city and metropolis have seen capital flight to the west and north, the degradation of ageing infrastructure, a scramble for upper-middle class housing construction, and increasing corruption and inefficiency at all levels of municipal authority.

Liberalization and globalization: Calcutta reinvented

If the above description paints a gloomy picture of Calcutta and eastern India while the rest of the country was increasingly prosperous, it is incomplete. As the following account indicates, the overall accomplishments of the command economy were quite mixed:

Between 1950 and 1990, (Indian) national output increased 4.6 times, the volume of industrial output 12 times, food-grains production 3.5 times, pig iron and steel 10 times, electricity 43 times, motor vehicles 70 times . . . the crude death rate declined from 27 per thousand of population to 12, and infant mortality from 170 per thousand to 89 . . . life expectancy at birth increased from 41 to 61 years . . . However, on the flip side, the number of persons below subsistence level now equals the country's

total population in 1951, and the number of job seekers has increased 100 times . . . about one third of the country suffers from malnutrition . . . 60 percent of the country's population does not have access to safe drinking water, 48 percent are illiterate . . . There is a clear trend of widening regional disparities . . . The ratio of per capita income (of Punjab to that of Bihar) has increased from 1.9 in 1960–61 to 3.4 in 1989–90 . . . the coefficient of variation (of per capita incomes) has increased from 0.22 in 1960–61 to 0.33 in 1988–89 . . . (Swamy, 1994, pp.18–21).

The figures above portray the dualistic nature of Indian development: industrial growth whose benefits have not trickled down, and at the same time have exacerbated regional imbalances. The figures also underline the notion that, starting from a very small industrial base at independence (one designed for colonial extraction), Indian industry has matured in some sectors. Nevertheless, India's economic performance has been much poorer than the NICs of East and Southeast Asia, and somewhat comparable nations like Brazil and China. There seemed to be general agreement that India was a "shackled giant," bound by a nexus of controls, subsidies, and licenses which led to a vicious cycle of stagnation, high cost, and inefficiency (Ahluwalia, 1985).

India had, in the past, sometimes been forced to "open the economy" when faced with serious balance of payments crises (Lal, 1995). But with the ascension of Rajiv Gandhi to the Prime-ministership in 1984 the beginnings of a hegemonic intellectual change appears to have taken place. Mr Gandhi's inclination to open India was clear, but had to be tempered to suit his party's populist mission and was eventually overtaken by an arms import scandal (see Corbridge, 1991; Kohli, 1987). There were important but small steps taken then. The reforms announced in July 1991, apparently triggered again by a foreign exchange crisis, went much further by making it easier for foreign capital to enter the country by largely removing entry barriers such as industrial licensing and equity participation limits. Foreign investment was welcomed in 31 high priority sectors, and in additional key infrastructure areas such as power, petroleum, telecommunication, air transport, ports and shipping.

When I first wrote this paper, in early 1996, the reforms seemed to have succeeded in breathing new life into the Indian economy. By 1995, four years after the initiation of reforms, foreign exchange reserves were at $20 billion, up from $1 billion at the time of crisis; industrial growth was up to 8 percent compared to 0.6 percent in 1991–92 (Government of India, 1995). The volume of the proposed investments (about Rs 4170 billion in early 1995) was about four times the size of the Indian budget: Rs 1122 billion for 1994–95.[9] But by late 1998 economic growth was at a standstill and it had become apparent that only a small proportion of the proposed new investments (especially foreign investments) were being implemented on the ground.

For West Bengal the liberalization process appeared to have been heaven-sent.[10] Of all the new investment *proposed* after the beginning of the structural reform process, almost 60 percent was concentrated in five states (Gujarat, Karnataka, Maharashtra, Tamil Nadu, and West Bengal), all leading urban states with large cities; whereas backward states like Bihar and Madhya Pradesh had less than one percent each. Gujarat appeared to be the leading investment magnet, with West Bengal a close second. But by 1998 a clearer picture has emerged: Gujarat is still by far the leading investment destination, but West Bengal is far behind – with less than 5 percent of the total *real* investment it is nowhere near the leading states. The picture is a little better as far as FDI is concerned, but only marginally so.[11] The spatial distribution of the new investment in West Bengal is also illuminating. About 35 percent of the small scale investment (up to $150 million each) is in the Calcutta metropolitan area; a substantial proportion of this investment is in the city in the service sector (office complexes, theme parks, transportation), and a large proportion is in manufacturing in the industrial suburbs. The bulk of both the small and large scale investments, however, are targeted for two ports (both south of the city and currently outside the area defined as the Calcutta Metropolitan Area): these are a new port at Kulpi (about 30 km from the city), and the industrial complex in Haldia (about 50 km. from the city). The latter with about a quarter of all small scale investments, and two-thirds of all large scale investments, is in the process of becoming a major industrial enclave.

Closer to the city two recent developments are noteworthy (for details see Chakravorty and Gupta, 1996). First, the Calcutta Metropolitan Development Authority (CMDA) is implementing the Government of India's Mega City Programme – Calcutta is one of five agglomerations (Mumbai, Chennai, Bangalore, and Hyderabad are the others) that are receiving special funding for the first time for infrastructure improvements. In keeping with the new liberalization philosophy, these new projects are to have significant cost recovery or surplus generation components. The CMDA, in response, has moved away from its acknowledged expertise in slum improvement to housing, new area development, and building commercial facilities.[12] Much of these new investments (estimated to be over 80 percent of the metropolitan total) are targeted to the city and its immediate surroundings, where it is clear that the city is congested and overbuilt, and has experienced serious out-migration over the preceding three decades.

The second development relates to the creation of new towns adjoining and to the east of Calcutta city. One of these, named New Calcutta (see Map 4.1), is designed to house 500,000 people (78 percent of whom will be middle- and upper-income earners), among high-technology oriented office complexes, and open spaces. Despite some environmental concerns – the designated area has considerable amounts of protected wetlands – work on

the ground has begun despite some unexpected difficulties in land acquisition; the State Housing Board, which is now in charge of the project, expects to sell housing units from 2000.[13]
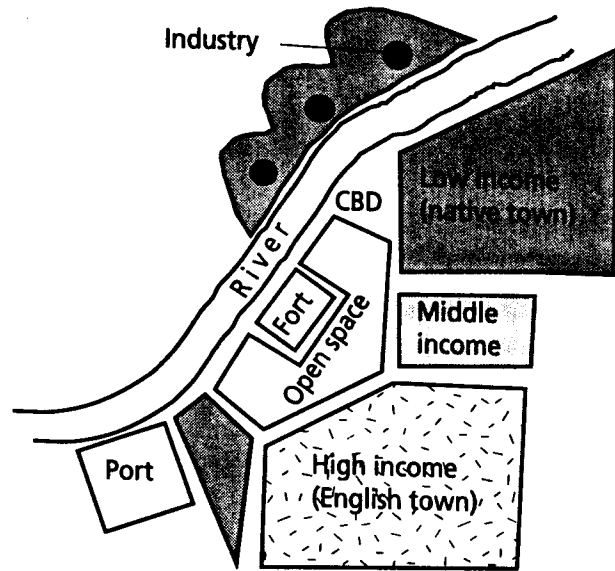
The Spatial Structure of Calcutta

The colonial city

At inception, the colonizers (then merely traders) sought to establish terms of trade favorable to the home country; later, after gaining complete territorial control, they used the colonized regions as sources of raw material to be processed in industrial England, and as captive markets for the processed products. The colonial city was a center of administration, a port, and an European residential enclave. This city's structure (as shown in Map 4.2) was deeply divided – the important spatial divide being that between the colonizers (living in high amenity, well serviced areas) and the natives (living in unplanned, congested, poorly serviced areas). Describing a model of the South Asian colonial city Dutt (1993, p. 361) writes:

The European town . . . had spacious bungalows, elegant apartment houses, planned streets, trees on both sides of the streets, . . . , clubs for afternoon and evening get-togethers . . . The open space was reserved for . . . Western recreational facilities, such as race and golf courses, soccer and cricket. When domestic water supply, electric connections, and sewage links were available or technically possible, the European town residents utilized them fully, whereas their use was quite restricted to the native town.

Calcutta city, then, started growing around an empty core (the fort and Maidan), with the English town growing south and south-west of Park Street (see Map 4.2), an area of Eurasian and mixed-marriage residences (i.e., an Anglo-Indian enclave) immediately to its north, and the area further north and east being occupied by the natives (working as merchants and traders, and as clerks for the British administrative system). However, it would be wrong to presume that this spatial division by race and class was strictly enforced.[14] The first wave of poor migrants to the city did not come to work in factories (because none existed), but to service the lavish lifestyles of the British. They settled in small slums within the English town, "or how else could the rich get servants, cooks, darwans, chowkidars, cleaners, gardeners, dhobis and the rest? Labour was abundant and cheap and it paid to keep the slums within the city, in fact nearer the mansions" (Munshi, 1975, p. 111). Bardhan Roy (1994) argues that the domestic services were needed from early morning to late at night, and as a result the dwellings of the poorest could be seen within walking distance of most

Map 4.2   The spatial structure of colonial Calcutta

luxurious areas of the city. I shall show later that this basic structure, created in the 18th century, still dominates the spatial pattern of work and home in the city.

The second wave of migrants came seeking employment in the engineering units and jute and textile mills that began west of the river from the middle of the 19th century, and to work for large transportation projects (Haora station in 1854, Sealdah station in 1856, the Calcutta tramways, and the Kidderpore docks). All of these activities (except the tramways) took place on the fringes of, or outside the city boundaries of the time; the new slum areas, as a result, began growing in these fringe areas.[15] Not surprisingly, the low income occupations were somewhat linguistically segregated: Bengalis in the clerical professions, Biharis as rickshaw pullers, porters, and factory labor, Oriyas in domestic service, and plumbing, gas, and electrical works. Their slums also tended to retain occupational and linguistic identities, as did Muslim slums (specializing in labor for soap and leather factories on the eastern and southern fringes). This structure within the city was replicated in miniature in the riverside industrial suburbs; these had small high-amenity areas (large estates as living space during the work-week for the British owners and managers), surrounded by a small middle-income area, and low income areas where the factory labor lived.
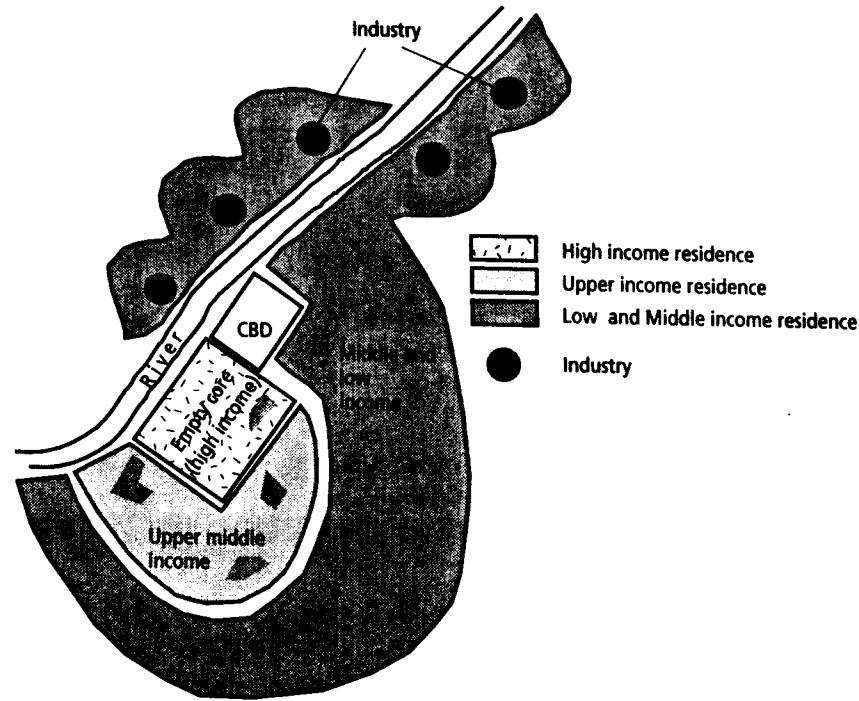
The post-colonial city

With the achievement of independence in 1947, the spatial divisions of the colonial city (demarcated by class and race barriers) were largely retained, with the native upper class (capital and land owners, political leaders and top government officials) now occupying the privileged space once reserved for the colonizers. The refugee inflow from East Pakistan, however, introduced an unexpected spatial twist. As Goswami (1990, p. 92) writes:

The influx of refugees really brought the city's elite face-to-face with the urban problems that were brewing for a long time. In the first place, unlike previous migrants, who were clearly subalterns, the typical displaced families were vocal and considered it a political right to be gainfully re-settled in the city. They belonged to the same culture background as the city's intelligentsia, and demanded to be heard. Second, they settled in areas that were perilously close to affluent South Calcutta neighborhoods: Behala and Chetla bordered Alipur, Kasba and Dhakuria were just next to Baligunj and Gariahat, Jadabpur was not too far from the mansions of Southern Avenue, and the brown and white sahibs could no longer go to play golf without seeing the slums in Tollygunj. The new urban poor could not be put out of sight in the unmentionable parts of north Calcutta.[16]

The inherited (colonial) space was divided into quarters, or ghettoes: British, mixed-race, and native town bordering the center (with slums interspersed in every quarter). The new (post-colonial) space retained much of this inheritance with the race divisions being replaced by class divisions. In addition, population pressure forced the city to grow outward, with the farthest areas being occupied by the low income population. As depicted in Map 4.3, the quartered structure of the colonial city was replaced by concentric half-circles, with income declining with distance from the center. However, as also suggested in Map 4.3, the area north of the empty core is missing the middle-income ring. This area, adjacent to the CBD and Burrabazaar (a large wholesale market), was the native town during the colonial period; its infrastructure deficiencies have increased over time, and the absence of planning and investment here is evident in its congested lanes and by-lanes, open drainage, and generally miserable living conditions. As expected, this area (north Calcutta) does not house the elite or the upper income population.[17]

The spatial distribution of the low income population at two time periods (1965 and 1983) is shown in Maps 4.4 and 4.5. In general, the two maps are similar – the significant difference is in the proliferation of slum areas in the far south (Jadabpur) in the latter period. This is not surprising, since as suggested earlier, north Calcutta has been completely congested for some time; any growth in poor areas has had to take place in the south (which is also a refugee stronghold, and a bastion of leftist politics). Two additional points should be noted: first, many slums have located on the least desirable

Map 4.3   The spatial structure of post-colonial Calcutta

public land (along railway tracks, and open sewerage and drainage lines); and second, the location of Calcutta's poorest, its pavement dwellers (or homeless population), is in many ways the opposite of that of the slum population. An extensive survey of the pavement dwellers was done in 1971 during the Census of India. This survey, and one carried out by the CMDA in 1987 found about 50–55,000 homeless persons in the city, and about four times that number in the metropolis (Mukherjee and Racine, 1986; Bandyopadhyay, 1990). The city homeless were (and still are) concentrated in the CBD, Burrabazaar, and Chowrangee, and are also found in the high income areas of Park Street and Alipur. As expected, there are few pavement dwellers in the slums.[18]

Some residential segregation by occupation, religion, caste, and ethnicity continued into the post-colonial period. Two points should be noted in this regard. First, the ghettoes are not large (i.e., unlike in the United States where the black population in cities like Detroit and Philadelphia is concentrated in large contiguous areas). For instance, one can find (in east Calcutta)

Map 4.5   The distribution of slums in Calcutta City, 1983

Map 4.4   The distribution of slums in Calcutta City, 1965

Source: Map 4.4 Adapted from *Basic Development Plan*, CMPO, 1966; Map 4.5 Adapted from CMDA Bustee Improvement Sector Document in Bardhan Roy, 1994
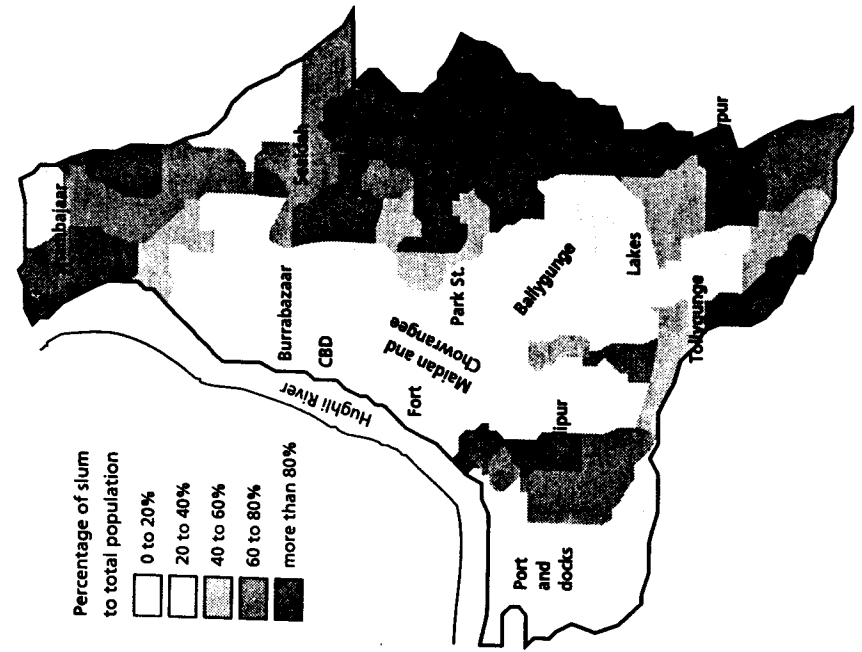
a low caste Hindu leather-worker bustee of say 15,000 people adjacent to an equally large Muslim leather-worker or tailor bustee. Second, this pattern of spatial separation is not confined to the poor: the business elite, which is generally non-Bengali, occupies the center; of special interest are the Marwaris (a group of very prosperous entrepreneurs from Rajasthan) who tend to live in enclaves in the Burrabazaar and Park Street areas. Professional South Indians tend to reside around the Lakes, and professional Bengalis live in south Calcutta.

The post-reform city

India's structural reform is a relatively recent event. Some spatial changes in the seven post-reform years are noticeable, but, at this moment, it is difficult to foresee the post-reform spatial structure with certainty. First, there is no guarantee that the reform process will continue in its present form, though it increasingly seems that a significant change has taken place in a society traditionally slow to change. The aftermath of the 1996 and 1998 elections suggest that regardless of the ideology of the group in power, the reforms will continue, and that it may be impossible to return to the centralized nationalist development ideology of the recent past. Second, our singular interest in economic outcomes in spatial terms may blind us to a perhaps more significant transformation in Indian society, where there is increasing (and more acceptable) social, cultural, and technological polarization.[19] The reforms are significant (just as independence was) in more than economic terms. It has raised a number of unresolved intellectual and political questions about nationalism, regionalism, governance, decentralization, inequality, and secularism. The resolution of these questions may influence the spatial structure of urban society as deeply as do the economic actions of domestic and global actors. Therefore, given the absence of structural stability, and the lack of hard data for the post-reform period, I have to rely on declared intentions and plans, and my often idiosyncratic personal observations to formulate the following speculative analysis.

The most significant new spatial component of the reforms in Calcutta are its new town projects, particularly New Calcutta (see Map 4.1). New Town projects in the Calcutta metropolis have a long history. In the late 1960s, following the recommendations of the Basic Development plan, one was created at Kalyani (see Map 4.1) at great expense and to resounding failure. Kalyani was a planned city where the state government would have relocated, but for the fact that the government employees refused to move. The city still has paved streets overgrown with weeds, and street lamps that were never lit – a perfect example of a planning disaster. Salt Lake, a new town closer to the city, was begun in the mid 1970s. This upper-income enclave is considered successful – it has a population of around 150,000 now,

and is expected to grow to 250,000. Salt Lake has no slums; its residents' biggest and most persistent complaint concerns the difficulty of obtaining affordable and reliable domestic servants (the old bourgeois complaint that "good help is so hard to find"). Many state government offices have relocated to the Salt Lake township (the Chief Minister has moved his residence there from south Calcutta), and many of the region's electronic production units are also located there.

New Calcutta can be expected to be successful for the same reasons that Salt Lake has been successful: it is close enough to Calcutta city for a relatively easy commute (for employment or services), and as a planned development it will bypass the city's ills – poor infrastructure, slums, and poverty. This new town will have 100,000 dwelling units (spread over 8.4 sq. km.), 1.5 sq. km. for a new business district and commercial complexes, 2.2 sq. km. for "modern, pollution free industries", and 13.1 sq. km. of water bodies and green areas (including a golf course).[20] A strong selling point of this new town is to be its proximity to Calcutta's recently expanded international airport – clearly the planners want this development to contain new (rather than relocated) industry, of the type that is high-tech and/or global in nature.

Can New Calcutta succeed without slums, or will its success depend on its ability to keep out slums? I believe that the answer to this question will partly lie in the degree of capital-labor substitution in the sphere of domestic production. Day (1992) discusses the capital-labor relationship in an analysis of housework in north America in the 20th century. She argues for a progressive model in which increasing industrialization led to higher wages, more women in the work force, and the availability of domestic appliances like the range, refrigerator, washer, dryer, and vacuum cleaner. As the supply of servants (usually recent immigrant women) fell, the wealthiest households continued to hire servants, but the middle-income groups did without, and substituted capital for labor. In India, the most visible signs of liberalization are colas, fast food, and domestic appliances – specifically the washer, dryer, and microwave oven (the refrigerator has been around for some time, and the vacuum cleaner is available, but generally considered unnecessary). New Calcutta is clearly designed for professional upper-income earners, the group most likely to adopt these household labor saving devices. If that happens, New Calcutta will look like a "modern" city, what is sometimes called a postmodern city in the US context (Charlotte, NC, for example) – clean, spacious, and free of visible poverty.[21]

A second major development is the growth of heavy industrial investment in Haldia (about 50 straight km. from Calcutta), and the so-far less successful Falta Export Processing Zone located between the two. As of July 1998 expected capital investments (largely in petrochemicals) in this port-city was about $4 billion (my calculations). If expectations are met, and it seems likely that they will be, Haldia will become a rather large industrial city.[22] This city

appears to be modeled after the Fordist growth centers like Durgapur and Bhilai, which, revealingly, are made up of "colonies" named after specific corporations; e.g., AVB colony, MAMC colony. That is, like most other planned developments in India, the city design will keep the informal sector and the poor spatially separated from the middle- and upper-income formal sector workers. As argued above, keeping the poor out may now be technologically feasible, but separating the dynamic and essential informal sector may be the seed of failure as a growth center, even if Haldia succeeds as an industrial enclave.

Where Does the Calcutta Story Fit?

Calcutta's spatial structure cannot be separated from its political-economic history. This history has been influenced strongly by global and local events. On the one hand, Calcutta's genesis and early morphology was defined by the global force of colonialism: "chance selected, chance directed" the city grew as a center of colonial exchange and administration in inhospitable urban terrain – a silting river, salt marshes all around it, unstable soils unable to carry heavy loads, in a very poor rice-growing hinterland. It never acquired a strong industrial base; its predominant industrial commodity, jute, was made technologically obsolete not long into this century, and the city's global trading links withered with the downfall of its primary product. On the other hand, the more influential events of the 20th century, as far as the city is concerned, have been local or regional in character. While independence may be viewed as a global event (the end of the colonial system), the impact on Calcutta was in its lost hinterland, and the flood of refugees. In this Calcutta is different from even the other comparable Indian colonial cities, Mumbai and Chennai, not to speak of colonial cities worldwide. Thereafter local politics, policies and events (Freight Equalization, communist infighting, the refugee influx from the independence of Bangladesh) have held center-stage.

Now the city has been reintroduced, willy-nilly, to the global system of production and exchange. The question raised here is what will happen, or is happening, to the internal structure of the city as a result of its *re*integration into the global economy. I believe that the answer will depend substantially on the degree of integration of the local economy in the global market. It appears unlikely that Calcutta will soon become a "world city" in Hall's (1966) terms, or that it is on the way to becoming a "global city" in Sassen's (1994) terms; that is, one cannot expect Calcutta to become either a global center of production (aircraft, ships, military hardware) or services (banking, insurance). The declared goals of the state's leaders are more modest – to become a center of large scale production of petrochemicals, leather, pharmaceutical, metallurgical, and engineering items within the Southeast Asia

region, and to compete globally in the electronics field (mainly computer software and hardware). The local state wants to evenly distribute the location of production facilities, but clearly expects such units to converge around the infrastructure advantages in and around Calcutta (in Haldia, Falta EPZ, Kulpi, and the city's industrial suburbs).[23]

There are several possible spatial outcomes. First, the city and state may utterly fail to integrate in the global economy ("a loser city"); this may imply spatial status quo and possibly increasingly miserable conditions for the city's poor. At the moment of writing this appears to be the outcome for the foreseeable future. Second, both goals (in the Fordist manufacturing and post-Fordist service arenas) may be successfully realized, leading to a spatial scenario as outlined in Map 4.6: high-tech, high-income planned enclaves on the eastern edge of the city, and planned industrial enclaves further south, resulting in the creation of a considerably larger agglomerative field, or metro-region. Intermediate outcomes are also possible, whereby the city succeeds as a center of Fordist production, but fails in post-Fordist terms, or vice versa. (Truth be told, my feeling is that the city would rather be a Fordist
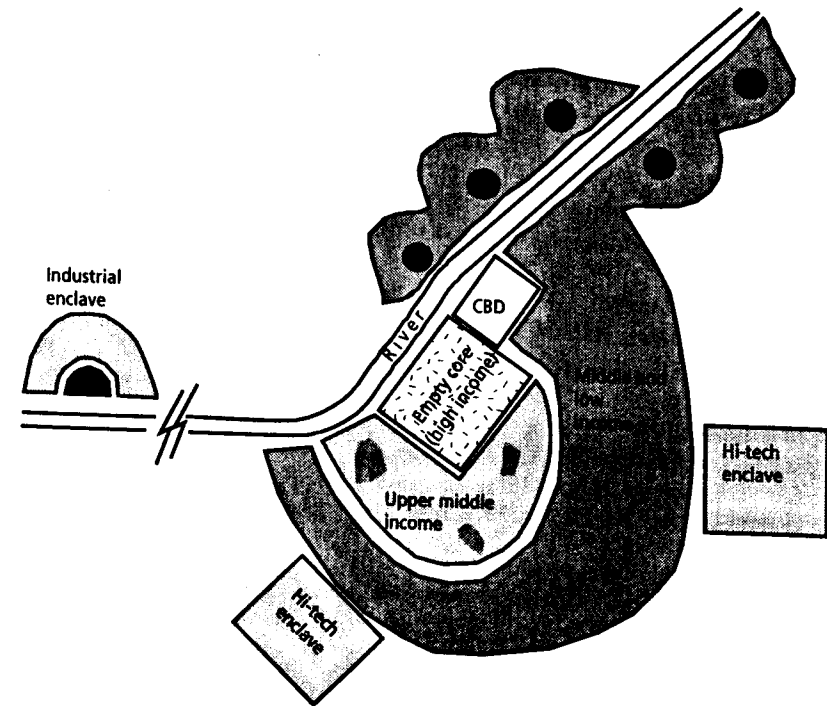
Map 4.6   The spatial structure of post-reform Calcutta

success, if it could choose only one area of success.) And, given the city's history as a refugee haven, one should not rule out the possibility of events beyond the control of the local state (like war, famine, and natural disaster). Remember that Calcutta is the city of last resort for a largely rural population of over 300 million people (including Bangladesh). Through all these possibilities, except the disaster scenarios, the core city is unlikely to change much in terms of the spatial distribution of wealth and poverty.

Does the Calcutta story fit a model? I am not sure. The city is quite different from its colonial counterparts – the more segregated, hierarchical, monolingual Chennai, or the dynamic, polyglot, recently chauvinistic Mumbai. Calcutta's leftist political leaders do not demolish bustees in high income areas (though, in a desperate move to clean up the city's image they have started conducting street sweeps to round up pavement hawkers – a fascinating story in itself). [24] The city has the reputation of being more hospitable to refugees and migrants than any other in India. The Hindu-Sikh and Hindu-Muslim riots of the 1980s and early 1990s barely touched the city. Perhaps globalization will change all that, with increased hardening of spatial boundaries between income, language, caste, and religious groups. Certainly the bourgeois planning apparatus has worked and continues to work for the benefit of the upper classes. If the liberalization process continues, and is accompanied by a larger role for urban planning (as in planned developments in New Calcutta and Haldia), and the adoption of labor saving household devices, one could see increased spatial separation between rich and poor in the new enclaves. Barring a dramatic economic turnaround, however, the city proper is likely to retain much of its present structure – perhaps not quite unique, but certainly one that cannot easily be fit into a model.

Notes

1 The author would like to thank the American Institute of Indian Studies for funding the fieldwork that led to this paper.
2 Salman Rushdie (1991, p. 11) writes about the Bombay (now Mumbai) of his childhood, splattered with advertisements for foreign products. He also writes of the very popular Hindi film song of the time, sung by Mr. Raj Kapoor, the everyman hero. Rushdie translates the song ("Mera joota hai Japani.." in Hindi) as follows:

O, my shoes are Japanese
These trousers English, if you please
On my head, red Russian hat –
My heart's Indian for all that.

Indeed, colonialism's "gift" to India (especially Indian cities) was the foreign brand name (Unilever, IBM, Shell, Goodyear, and, of course, Coca-Cola).

3 Before the 1985 civic elections the municipality of Calcutta was expanded to include the units of Jadabpur, South Suburban, and Garden Reach (shown in Map 4.1). The number of wards in the city increased from 100 to 144, and the population increased by about 1 million.
4 Estimates of Calcutta's population during this period are available in Mitra (1990): 10,000 in 1701; 140,000 in 1801; and 950,000 in 1901.
5 It is interesting to note that Calcutta was not the first colonial establishment in the region. Some municipalities which are currently in the suburbs actually predated the establishment of Calcutta. For instance Chinsurah, Hughli, and Chandannagore were outposts of Portuguese, Dutch, and French traders respectively, established before Job Charnok's Calcutta lease, but were eventually brought under British authority.
6 These industries often had Indian nationals in senior management positions, but capital ownership was almost exclusively in the hands of British nationals or Anglo-Indians. Mitra (1990, p. 114) argues that "this exclusive monopoly of European capital in Calcutta continued till 1947."
7 There were two primary reasons for this spatial pattern of investments. One, regional inequality was perceived as a serious threat to the Indian multi-language and multi-religion polity; decentralizing industry out of the core metropolitan regions into growth centers near raw material sources was argued to be efficient and equitable. Two, the core metropolitan regions were already perceived to be congested and unmanageable; any more investment in these regions would exacerbate the problems of visible concentrated poverty and congestion-created inefficiency.
8 The centrist force was the Congress Party, the leader of India's freedom struggle, and the party in power at the State and Central government. The leftist force, the Communist Party of India (Marxist) or CPM, has been the party in power in the State since 1977. The radical force, the Naxalites, were exterminated in urban areas, but sporadically resurface with actions in rural areas.
9 In August 1998 US $1 = Rs 42 (approximately).
10 The leftist government in West Bengal was initially skeptical and resistant to liberalization. However, since mid-1994, it has revamped its industrial policy, brought in a high profile Member of Parliament to head its Industrial Development Corporation, sent the Chief Minister on investment seeking visits to Europe and North America, and helped repeal the Freight Equalization Policy.
11 These data have been taken from my ongoing research into the spatial distribution of new investment in India. The preliminary findings are in a working paper (Chakravorty, 1998). The source of the raw data is the Center for Monitoring the Indian Economy.
12 Slum (or bustee) improvement had been a significant success story of the CMDA (Pugh, 1989). In earlier development plans it had spent up to 25 percent of its budget on slum improvement, with less than 14 percent spent on housing etc. Under the Mega City Programme slum improvement is budgeted about 1.7 percent, while housing, new area development, and commercial facilities are budgeted over 46 percent.
13 Another new town, this one named Second Calcutta, on the south-eastern border of the city, is being shepherded by the minister for Urban Development.

This project appears to be a non-starter: the area chosen is too large, and the environmental problems are more serious than in New Calcutta.

14 It is interesting to note that high-level recommendations to formally recognize this three-fold division of the city were made twice: by the Chief Magistrate in 1833, and later by Baron Dowlean in 1860 (Munshi, 1986 and Banerjee, 1986).

15 The term 'bustee' is often used interchangeably with slum. Bandyopadhyay (1990, p. 86) points out that there are legal differences between the terms. A slum is an area with "conditions injurious to public health or safety . . . "; a bustee, on the other hand is defined by the physical nature and dimensions of contiguous dwelling structures. Generally, a bustee is an inferior slum. There are at least 2,000 bustees in Calcutta city, and in the metropolitan area the total bustee population was estimated to be 3 million.

16 See Maps 4.1 and 4.4 to locate most of the neighborhoods mentioned here. The Lakes in the figure is the upper income "Southern Avenue" area. Baligunj is Ballygunje and so on. I have used more current, phonetic spellings for place names throughout this document: Haora instead of Howrah, Hughli instead of Hooghly, etc.

17 North Calcutta does include some impressive mansions: Rabindranath Tagore's house and the Marble Palace, for example. These are remnants of an era when some native elites preferred, for political reasons, not to settle in the English town.

18 The pavement dwellers tend to be the most recent migrants (over 65 percent had moved to the city in the last six years) with the lowest skill levels (about 45 percent are beggars or casual-day laborers). They are not refugees, but tend to be villagers from the agricultural hinterland (see Mukherjee, 1975). These, the truly disadvantaged, lack the resources to even be slum dwellers in Calcutta.

19 There is a long standing (and some argue, false) dichotomy in India. *Bharat* (which is the native name for the country) is the "real" country and lives in its villages; *India* is its "foreign" element, residing in its cities. This view was/is held by many influential people, including the late Prime Minister Charan Singh.

20 These figures are taken from New Calcutta promotional literature and media.

21 The provision of 7,000 housing units in "service villages" in New Calcutta raises interesting questions. The Minister of Housing explained to me that these would house the displaced persons; it is possible, though, that some mini-slums are being thoughtfully incorporated, to avoid the "servant problem" of Salt Lake.

22 Here one finds interesting parallels with spatial restructuring in Sao Paulo, Brazil. Diniz (1994) and Storper (1991) have argued that despite "polarization reversal" within the state of Sao Paulo (using conventional definitions of the metropolis), an "agglomerative field" of around 150 kms. around the city is the dominant growth region in the country. That is, an expanded definition of the metropolis would show continued polarization of industry and population into it.

23 The information in this paragraph is culled from the state's Industrial Policy Statement of September, 1994, and promotional literature published by the West Bengal Industrial Development Corporation. The industrial location incentives offered by the state favor the backward, unindustrialized districts, but

the investment response, as shown earlier, is heavily lopsided toward south Bengal.

24 British Prime Minister John Major's January 1997 visit to the city prompted these unexpected street sweeps. The left leaders went against their decades-old reluctance to evict unlicensed hawkers and pedlars so as to show Mr Major a clean and efficient city, worthy of British investment. In a surprising twist, some of the prime movers of the sweeps have suffered embarrassing defeats in local intra-party elections. The story continues.