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Author

Meier, Richard L.

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Richard L. Meier

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Richard L. Meier

October 1971

University of California at Berkeley
The Institute of Urban and Regional Development

KARACHI: PAKISTAN'S COASTAL METROPOLIS

August, 1971

How is one to explain Karachi? Here is a huge metropolis, well over three millions in population, spread out on bare sandy silt. It has no edge that contacts green fields and merges into villages. It overshadows in numbers the remainder of the whole province of Sind, of which it is now the capital. For an explanation of Karachi's case it is necessary to go back to the very beginning.

Earth forces of three hundred million years ago caused the sub-continent of India to break away from the land mass to the south and drift over to Asia, thrusting up the Himalayan massif in the collision. The shallow straits that were left in between then filled with newly eroded sediment. Each monsoon delivers moisture which runs off down gorges to become the great rivers, the Ganges, the Indus, the Brahmaputra. To the west the plains of the Punjab drain into broadly cut canyons of the Indus that lead to the Arabian Gulf. The dry Indus valley was easier for prehistoric man to settle than the swampy Ganges; thus we see arising very early the civilizations of Harappa, Mohenjodaro, and Taxila. Trading then was mostly by sea, but the sediments continued to accumulate and the river was forced to change its course, so the early ports were stranded.

In the seventeenth century a new anchorage was found scoured out by the tides between the deltaic islands of Manora and Keamari.

There the deep draft ocean-going vessels transferred cargo to the bunder (country boats) that could negotiate the sand bars of the Indus, and a settlement and fort were needed to service and protect the exchanges. Thus Karachi came into being. By the eighteenth century it had become the dominant port of the Sind. In 1839 the British found it convenient to take over, thus rounding out their control of India. At that time Karachi contained perhaps no more than 14,000 residents, but trade flourished under the British and the population in the 1861 Census was recorded at 56,000.

Trade made the old Karachi. Sizable fortunes were first accumulated from the export of cotton that took the place of bales blockaded in the American Confederacy. Then, step by step after 1859 the railroads advanced northward, displacing most of the river traffic, and making the trans-shipment of grain possible. Karachi enabled the Punjab to join the granaries of the world (the American Plains West, Argentina, Rumania) thus permitting Western Europe to turn its attention to industrialization without suffering from the cycle of famines and epidemics previously experienced. Irrigation, in projects of increasing scale, added to the output of the Punjab enabling it to generate foodstuffs in marked surplus for most years. Karachi became for a few years before World War I, the leading wheat port of Asia.

Early industrialization in India revolved mostly around cotton textiles, an industry that was greatly accelerated during World War I. About then the American variety of cotton was successfully introduced and Karachi built up a strong cotton trade again. Oilseed cake for the dairy cattle of Europe was another commodity that expanded significantly for a time, as did the rough wool from the Northwest Frontier.

Trade in those days was secured by military control. Since the actual fighting was so often on the Northwest Frontier, from before the time that Kipling romanticized it, the campaigns were supplied through Karachi. Thus it is not surprising that cantonments and the Defence Colony surround the old port city and the most well developed bazaars lie in between. Both World Wars gave a strong stimulus to the Navy, so the harbor was built up, and hundreds of acres of new land created at the shoreline, much of which was taken up by naval establishment. The sequence of events that converged upon Karachi as an appropriate site for action brought it up to third among the port cities of India, passing up such centers of imperial administrative power as Madras and Rangoon.

The great human catastrophe of the Partition in 1947-50 swept in refugees in such large numbers that the population tripled, mostly with Muslims from western India, while half the original settlers moved into the Sindhi colonies of India. The nation of Pakistan struggled into existence, and was endowed with Karachi as its metropolis, more open to the world outside than the ancient caravan center of Lahore. Karachi was made the functioning capital of the whole country and telecommunications, airlines, and shipping were given highest priority so that the influence of government and its programs for development could be felt throughout the territory. A combination of the labor force on hand, and the infrastructure of government, combined with a will to industrialize the nation, created a string of modern industries on the periphery of the present Karachi. The rapidity of growth has also resulted in an accumulation of at least 800,000 persons squatting in jhuggi communities, hoping to get permanently established.

Metropolitan Anatomy

A metropolis, much more than an organism, is a recapitulation of forces that brought it into being, because the circulation networks -- streets and water supply grids, rail lines, storm sewers if they are needed, and developed waterfronts -- have a half-life of a hundred years or more. The "permanent" structures are only half as long-lived, and the human activities that they shelter are much less yet. The present metropolitan structure depends not only upon the original intentions of the developers of the townsite but the forces of preservation that have maintained certain precincts against attrition. These fundamentally conservative components of the society explain to a large extent what remains today in the anatomy of Karachi.

Only the barest traces remains of the Curratchee ruled by the Emirs of Sind. At one point the apartment buildings are raised about five feet higher than normal and the alleys have steps leading up to their backs and then dropping down. The wall of the old city was there. The gates have left vestiges as small open spaces (chowks) adjoining markets. The wells that supplied it with water are still used as sources of supply by the pan-wallahs who carry it in goatskins to those who remain unconnected to the grid.

The spine of the city was set by the embanked Bunder Road that allowed the goods to be moved between the godowns in the city and the ships. Bunder Road naturally acquired a customs house, a tram line, a series of counting houses that became banks, insurance offices, and related services. These reached their zenith when taking over land closer to the railroad a quarter mile or so to the south. When the name of the road was to be changed by edict, it was worthy of the founder

of Pakistan -- Ali Jinnah Road is put into the directories and the maps. The railroad, since it came somewhat later, was forced to meet the ships in the vicinity of Bunder Road, moving away along the then high tide mark of the shoreline.

The polyglot mercantile community that mans the ships (although sailors are provided by the so-called fishing communities) is stacked up in Lyari, much of it five stories high immediately to the north of the mole end of the Bunder Road. With its narrow lanes and mucky streets, and overpopulated, grilled porches, it resembles closely all other Asian mercantile communities. One sees the familiar chowks, often with some (but not intensive) specialization of commerce around the opening to the sky, the toy-size brilliantly pointed-white or jeweled brownstone mosques (now with rusting amplification equipment attached to the minarets, put there to make the call to prayers more compelling), and small block-size markets and bazaars. Nearest to the wharves is a district of night clubs and a small red light district. Customers are collected by horse-drawn Victoria carriages. Communities like these are powerfully integrated, able to respond to all the historic exigencies and offer a wide variety of services, but still, spongelike, able to absorb an extra 20-40% into the interstices without notable stress.

To the south of McLeod Road, the relief road to Bunder with the most high-priced real estate, are the railroad yards, warehouses, machine shops, and truck depots. Streets are wide, enabling the highly decorated lorries to maneuver. Work goes on inside high walls so the streets are lively only during opening and closing hours.

By now we have worked our way almost a mile down Bunder Road. To the north the specialized wholesaling districts, paper and printing

in one precinct, machinery parts, often in quite large compounds surrounded by shops and stores, some with living quarters, some not. Then a much mixed up area of two to three story residences much reconstructed from their original designs, many converted into small flats, public buildings, military hutments, company buildings, and empty plots, some with pools of black water.

Beyond are the cantonment areas, built for the troops serving the British but now converted often to quarters for low level civil servants, but in between are the remnants of communities which once preferred to live by themselves, but are now surrounded, particularly a Parsi colony and a Tamil colony. And there is also, adjacent to the old tramline depot, a well-organized retailing area -- the Bohri Bazaar and Empress Market -- left over from the arrangement between the British Army and the Bohri traders all through the north of India in the last century. The Artillery Maidan, an open space to compare with Calcutta's, is now filled in with squatters, many of them specializing in automotive repair.

Most tourists are impressed with the great mosques whose sites of four acres or so were carved out of the city in fairly recent times. Each principal sect has its own grandiose form that impresses from a distance but does not stand up to close inspection, thus not comparable to the mosques of Iran. The memorial to Jinna, brilliantly lit at night, is given pride of place. Monumental Frere Hall, almost a century old, is empty now, but its green lawns are used as a park offering television free to the masses.

After that one comes to the Pall Mall of Karachi, called Club Road, which sports the Intercontinental Hotel, meeting place of the rich cosmopolitans, the Governor's House, the American Consulate,

the older grand hotels called Metropole and Palace, and the airline offices. Beyond it stretches the European sector, a corner of it shared with the Parsis, which is aging but under reconstruction. Some of the grander homes and flats are taken over as town houses by shaykhs and remain in a state of disorder awaiting notice of the return of the master, and some have been taken over by middle-sized firms as offices, but most have retained private gardens behind the high walls. Beyond is the Defence Colony with its posh villas, where Europeans still live with a car and three to five servants but at least four times as many Pakistani landlords have adopted the life style.

This affluent community is protected by tideland from the jhuggi precincts and the organized resettlement areas; those for civil servants are pukka, with facilities and space provided according to one's rank. Some of the others, like P.E.C.H., are middle class and professional, and a few (e.g., Korangi, a Doxiadis project of the 1950's) are designated for the settlement of refugees. Already Karachi seems to go on and on, skipping over large empty patches and bare, rocky low hills. Buses that bring residents back to the action of the centers are crammed to the point where the last man to be added must hang on by his finger-tips.

Life in the Jhuggi

As elsewhere in the world, the squatter settlements are ad hoc villages. Households belong to the same religious sect, speak the same dialect, and originate from the same region. A few are mixed; they tend to collect outcasts, criminals, addicts, and fragments of communities still unable to create their own settlements, often due to interdependencies with others. People circulate freely between the jhuggi and their original homes. In most instances the population is predominantly younger males, but this age distribution is changing as the settlement grows older because the families are large. The greater the distance from home, the higher the proportion of males. Thus the Chittagong community, from the northern borders of East Pakistan is said to be 90% male, and the newest Pathan community from the Northwest Frontier has almost the same proportions.

The main body of the jhuggis lies to the north. First finger-like penetrations into the cantonments still occupied by the military and similar housing constructed for refugees. A few hundred yards further north is a solidly packed strip along the channel of the Lyari River which in this season of the year presents thin flows of viscous green liquid (almost pure sewage mixed with algae) through the debris of several seasons, picked over by professional scavengers, children, and goats. On the other side it goes on for miles, with only narrow lanes separating one community from another. Roads were cut through after they were established and a circular railway of more recent construction runs a few trains a day on a raised roadbed. My own first impressions of the jhuggis were obtained by driving through, or riding the train. Later their crooked four-foot lanes were penetrated with the aid of a Calcutta-trained planner and an Urdu-speaking sociologist.

Settlements with easy access of S.I.T.E. (Sind Industrial and Trading Estate, the most successful industrial zone) are most tightly packed. One carefully maintained house that leaned on the wall of the Zoo, with a tantalizing high opening that looked into the "garden," sheltered eight people and considerable crude equipment in about a hundred square feet. There was only one charpoy for a couple, but bag-like packages of bedding were stacked in a corner ready to be laid over the raised concrete floor and the hard earth of the porch room were noted in the corner. No property was seen that was worth stealing; the only decoration was a faded print of the Taj Mahal, which was not surprising since the head of the house was a refugee from Agra and a SITE-employed tailor. Another second story room harbored ten persons, mostly children, in less than a hundred square feet, on a wooden floor polished from use. The fact that such second story rooms were scarce, and only a few other houses were equipped with bunks for multi-level living, while some became well off enough to appear in leather shoes and good clothes bespeaking a bit more room for chests, cooking equipment and furnishings, indicates that the net density is around 2000 persons per acre. Such densities in predominantly one-story settlements are quite normal for the various cultures of India and are to be found throughout the Uttar Pradesh from which these people had fled.

This could be compared with a Sindhi village (goth) that was recently surrounded by the outreach of the metropolis. The first surprise is the trees, which can be seen from the approach. Each of the separate compounds contains several wispy-leaved trees with trunks the thickness of an arm or a leg and a sleek buffalo or two tied to one near the center of the open court of the compound. The lanes were wide (8-10 feet) and had suffered few encroachments. The houses were

the simplest kuchha -- mainly old reed mats for walls and even some-times for roofs.

Village people have freehold on the land and maintain the internal discipline needed to prevent its sale. The closeness of the city however has increased their wealth because they could rent to squatters with greater security for the squatter, thus allowing the residents to invest continuously in house improvement. The village gets 30-35 rupees per room per month when land nearby goes at 15-20 in sub-lets. Their buffalo are maintained on the grass and weed that grows around the nullahs (channelled dry creeks) and on imported straw brought in from the nearer irrigated areas by pack camels, producing milk very profitably for nearby delivery. The population in the village is perhaps at a new density (including lanes) of 300 people and 40 buffalo per acre. Pukka houses on one boundary are occupied at a density of perhaps 500-600 per acre with buildings averaging two stories, and the jhuggi people are at 1500-2000 with structures primarily limited to one story.

At the real edge of Karachi on the north a series of bare brown serrate ridges rising as much as 600 feet are formed from an uplift of the faulted surface strata by some inner earth force. On the steeper sides of the hills the Pathans have found familiar living conditions. They pile up the stones into walls with a minimum of mortar, buy imported poles to put across the top and then pave the roof. Very frequently, the roof becomes an open space for the house on the steep hillside above and a place to sleep during the hot weather. Pathan women are rarely seen (they are often kept in purdah) and the mixture of inquisitive children and young adults that followed us around numbered no more than fifteen --- as compared to thirty or

more in the refugee settlement. The Pathans maintain a "hotel" for young men which provides lodging and board on credit for new immigrants. This particular community claimed to be supporting about a hundred in this way.

Increasingly common is the resettled jhuggi -- communities forcibly moved from the central parts of the city. The poorest of them is made up of huts of new matting a mile or more from the nearest bus stop where the water wagon often fails to arrive. More frequent however is the community that has a laid out shopping strip, better bus service, internal water supply, and a brick factory for building walls. Such communities appear monotonously grey with fresh unpainted wood doors. As they get older most owners begin to improve the status of the houses with stucco, paint, molded walls, potted plants, and the like, which enable the outsider to identify the kind of community that lives there. Although each community has adopted a name, there are no signs placed on the roads to indicate either its boundary or its center.

A crisis has arisen in the resettlement of the inner city jhuggi settlements. The Karachi Development Authority has the task of preparing land development schemes on the periphery. It had first developed new middle class communities and had managed to get its capital back and potentially turn a profit by the time all the sites were served. Then it was decided to clear out the jhuggis within five years. So the KDA prepared land on the periphery and charged 25% cash immediately, with the remainder to be paid at designated times. A large share of the residents were forced out by the bulldozer but could not afford the assigned new location on those terms. Those who found the first payment rarely came forward with the succeeding

installments. KDA's response was to raise the downpayment to half, but inadequate subsequent payment, caused them to move to a 100% downpayment. Recently a neighborhood of Pathans resisted resettlement by ejecting the KDA team forcibly. So far nothing terrible has happened to them despite knowledge that the Government operates under martial law and need not explain its actions to a parliament. Other communities among the vulnerable 400,000 population may be encouraged to resist in the near future. A new formula for resettlement is sought.

What of the Future

Pakistan is a nation with one head, represented primarily by the military and the civil service, and two bodies. It is now suffering from the effects of an unbalanced growth policy. Although the poorer East Wing produced about 60% of the foreign exchange, and contained that proportion of the population, it received less than 40% of government expenditure and even fewer of the top jobs. Attempts to restore the balance were strong enough to stop economic development, even causing a decline in real income. The political and military action required to hold the nation together will have depressing effects for a long time to come.

No matter where one looks for evidence that the bright young men are clustering in some agency where there was hope of doing innovative work that would move the society forward, it does not seem to be happening. Such clusters in four or five agencies are required precursors for a takeoff in economic and social development. They have existed before in West Pakistan in agriculture, water development, railways and economic planning, but these activities focus on Lahore and the Punjab rather than Karachi and the Sind. Much of their task was completed when West Pakistan moved out of the food deficit category, and it is said here that the early momentum generated in these agencies has subsided. Many of the most competent Pakistani economists and technologists have obtained overseas posts, some in international agencies, some in the Foreign Service, a few in universities, and more in multinational corporations. There they can help Pakistan in special ways (I encountered one clear case where a London professor arranged to remove a technological bottleneck in Karachi by training local talent) but they do not reinforce each other. They are aware that

informal cooperation on policy-related issues just now may be regarded as conspiracy in some quarters. They are tired also of the bickering and feuding, the contests for small prizes, that occupies the attention of most bureaucrats.

In planning, a challenging proposal that is competently presented would be subject to nit-picking criticism. Certain wording of statements is queried, the tables are not laid out properly, the graphics are said to be ambiguous, while the contents are studiously ignored. As the economic situation worsens the more corrupt administrations become aggressive and look for new ways of making up for their loss of undercover earnings. This is usually accomplished by finding other ways by which bureaucratic process can be delayed, so new projects need extra "grease" to get things moving.

The most powerful agency in Karachi is the Port Trust (KPT). The working of the port itself is highly regarded internationally; it is the only one on the continent of Asia that compares with Japan and Hong Kong in turnaround time for the ships that put in at the port. It collects its own revenue and can build on the basis of the credit standing it has fostered over time. The projects it plans are grandiose; careful cost-benefit calculations seem unnecessary. Lately, for example, they have proposed a passenger liner terminal. Its design looks something like a mosque because it would primarily house the pilgrims to Mecca who flow through in the proper season of the year. Such a huge expenditure for only 300,000 sea-going passengers annually! Would it actually happen? Other civil servants shrug their shoulders -- more likely than any of the most worthy projects that come up for decision at the same time.

Measured in terms of modern technology the Pakistan International Airlines is advanced and competent. It must be in order to compete with the American and the Europe-based airlines outside of Pakistan. Its internal network has become a work horse for the administration and the military in extending control of the government into the districts. It connects up cities with as little as 30,000 population with Karachi, Islamabad, Lahore and Dacca. It enables the government to respond quickly to local crises, preventing paralysis of local representatives of authority who await direction from the center. Thus the PIA serves as an effective amplifier of central authority for standard administrative action.

The Karachi Municipal Corporation (KMC) is a relatively well managed producer of urban services, but it has no reputation at present for innovation or forward thinking. It seems to be coasting on a history of supervision by the Parsis, a small public-spirited group whose place in the great cities of South Asia appears to be a parallel of the role of the Quakers in England and America.

The respective utilities, electricity, water and gas are in better shape than in almost any other metropolis in South Asia. The service, that is to say, has relatively few complete breakdowns. Local lapses are quite common, however, especially in the poorest areas of the metropolis. The rate structure is highly realistic for Pakistani conditions, since the large, affluent users are given reductions in price, get delivery at prime times, and have much less trouble getting installations. Everything has been worked out to make sure that the lives of the important and influential people are made as convenient as possible. The electrical grid has had somewhat more trouble than most. This August again a group of sharpshooters with rifles (the

exact organization was so influential it was never specified in the newspapers) shot and severed the main cable leading power away from the generating station in the course of target practise. Two years ago a similar incident at the same spot caused a backlash that almost blew up the main power station. This time government and business stopped for about three hours, and then the situation quickly returned to normal.

In summary, the quality of house-keeping is not bad among the public agencies responsible for Karachi, but the level of enterprise is exceedingly low. Again it is apparent that the British left behind an administrative system that will act to restore order, one that works astonishingly well in various kinds of crises for which precedents exist, but as an instrument for expediting development it remains very much a weak reed.

At the moment a tremendous surge of activity is evident in the cooperative sector, especially in housing. Could the necessary stimulus come from this surprising direction? Closer study suggests that it is primarily regarded as a means of hedging against inflation. "Remonetization" (which meant cancelling the value of all Re 100 notes and larger) occurred only a few months ago and many holders of black money took a heavy loss, so henceforth they will put it into land at the urban fringe, which is almost as good as gold, particularly when the Karachi Development Authority is strapped for cash at the moment and is putting a lot of land up for auction. The cooperatives are now accused of being fronts for people known to be engaging in sharp practises (to fall back on a local idiom).

The most promising reports came by way of a visitor from Lahore. He had returned from North America only two months previously and had

accepted a post in the prestige engineering school there. Already an inter-disciplinary cluster of competent people interested in solving urban problems had formed. Perhaps it is easier in Lahore with the effects of the Green Revolution so close at hand.

The private sector is strapped for funds as well. Most of the industrial growth was based upon imported materials such as petroleum, iron billets, copper bars, plastics, solvents, yarns made of synthetic fibers, biochemicals, pigments and rubber. Now that the foreign currency is in such heavy demand these industries are allowed only 30% of their needs. At present they are still depleting inventories in most instances but one stockpile after another is running out.

Previous methods of entrepreneurship and management no longer work. The national planners stressed import substitution, so the great families came forward with proposals prepared for them by sales representatives of foreign firms. After the appropriate baksheesh had been spread around the government acted in ways to prevent personal loss and assure retention of profits by the entrepreneurial groups. If losses set in, or were seriously threatened, the regular procedure was to go to Government and bargain for increased subsidies. Success or failure in business depended upon how well one played the influence game; it rarely depended upon cost accounting, budgeting, planning, marketing or other management techniques. Therefor the US-AID school of business administration in the heart of the city languished. No one seemed to need the graduates.

The twenty-two leading industrial families have gone to the well too often. Now the Exchequer is empty. The only hope is to reduce costs of production, but the overheads per unit of output are very high when factories work at 25-30% of capacity. Firms begin to realize that

they should have been building up overseas markets based upon their surplus capacity and not wait for internal growth.

Early in the year the Japanese came back to Karachi with a second port proposal that would also be a free port. Although they offered the same joint development program as in Korea the examples they used to illustrate how the free port would operate all emphasized bulk handling, and the reduction of raw materials to commodities needed in Japan as well as Pakistan. The top man in the Chamber of Commerce mentioned exports like cement and marble, perhaps petrochemicals. The site they proposed would not be at all suitable in the short run for mobilizing labor for light assembly. The Pakistanis could have little hope of earning foreign exchange with semi-skilled surplus labor and urban services in that satellite location. Moreover, it is a proposition that can only start paying off about five years from now, and the country is in the midst of a prolonged immediate crisis.

The economic data of the recent past revealed the achievement of an average growth rate in GNP of 5.5%, a pause taken out for war with India, a near re-establishment of that rate and then a faltering to a negative 1.2%, according to the sparse information offered in an editorial, in the course of an attempt to undertake constitutional government and hold elections. This year the slide will probably be greater because foreign aid in everything but arms from China is being reduced in a drastic fashion.

The foreseeable future is made up of a number of events fore-shadowed by present indications combined with a number of opportunities already in the gestation stage. The personalities and relationships in the existing power structure and its most likely alternatives are considered carefully to discover how they are likely to respond. When

this exercise is carried out for Pakistan and Karachi the scenarios that result seem to be all tragedies. Some of the sub-plots in the scenario, such as the United Nations-sponsored master planning effort in Karachi, reveal earnest attempts to construct a different theme in a more hopeful mood, but the leverage is pitifully small as compared to the impact of events that almost inevitably follow upon the decisions already taken.

The nation itself seems likely to survive territorially complete; the method employed to achieve it however has been through the amputation of digits. After ejecting 9,000,000 Bengali (the median Indian claim) the West Wing will weigh more heavily electorally than the remaining Bengalis in the East, just as it insisted upon from the beginning. Pakistan suffers now from near paralysis, an after-effect of shock, the condition that normally follows amputation. Soon the severed nerve ends will be tingling with pain and arteries will be demanding transfusions. Convalescence will be a long and rocky road. Can cities thrive in conditions so stressful? The stress is least in Karachi, among the half dozen largest cities, so it has the most help for getting constructive efforts going again. On the other hand, its fair share of the price yet to be paid is also the largest.

BANGKOK: INSTITUTION-BUILDING AND REDIRECTION

August 1971

Bangkok is living on its reserves this year. It gleams a bit less now than before, perhaps because a few speculators are strapped for cash and are unwilling to put out any funds for the paint that will cover up the fungal rot pervading a tropical delta. All sources of income started drying up at once -- military assistance, facilities maintenance payments, rice price (by a shocking 30% after years of earlier weakness), tourism, economic assistance, tin price, maize price. Only kenaf is up a bit, due to the tragedy in East Pakistan that results in a world jute shortage, but its fortunes will almost certainly decline with the new crop. Bangkok brokers turn over all these income sources, taking a healthy cut before the money gets back to the original producers of goods and services. Add two recent dizzying blows: Nixon's announced trip to Peking and demonetization of the dollar, along with aid cuts associated with it.

The reserves are not too dependable either. Portions of it in institutional and private hands have been known to react to an uncertain situation by reappearing in Thai-Chinese banks on Kowloon's Nathan Street, their Hong Kong agents. Fortunately, Thailand's neighbors are in almost as deep trouble. Rubber demand has begun to fall off for Malaysia, Burma continues to experience a receding economy, and the plight of Laos and Cambodia is well publicized. Even Hong Kong is temporarily pinched by dollar demonetization and the die-off of the wig-wearing fad.

Yet life must go on. The traffic is no less, the queues no shorter, and the shops keep open many of them even on Sunday. The quotations of its currency remain firm. In an inflationary world, Bangkok's cost of living is steady. The signal to any financial collapse should be a general slide in urban land prices -- the rewards from metropolitan functions now have so much less value than before and poor prospects besides. But no hint of that yet in the newspapers except in the areas specializing in serving American soldiers.

Land price is an important indication of confidence in the future of the metropolis wherever a land market is allowed to exist. It has not always been significant in Thailand, because land was once almost totally in the hands of the Thai aristocracy, or the peasant farmer. The government was the most common land developer but it sold off plots to the private sector at the same time (i.e., after World War II reconstruction) a middle class began to proliferate and created a demand for free-standing houses. Thus a shadowy land market evolved. Everyone agreed, however, that foreigners should be kept out of landholding, so the government enforces those laws even as it winks at other questionable transactions.

Over the past five years important amounts of official credit have flowed into real estate loans. Bank of Thailand figures show a 50% annual growth rate, amounting to \$324 millions of loans in 1970. The first quarter of 1971 was up 22%. At least two-thirds of this is lending concentrated in the Bangkok region. The uncertain nature of the land market is fostered by murky titles -- the recording office is at least three years behind and many holdings are merely shares in a scheme without the specific assignment of a plot. It is amazing how much concrete and steel has gone up on such a flimsy legal base.

Bangkok land prices as a whole are down somewhat from 1970. They are said to have retreated to the 1969 level.¹ These generalizations are bankers' estimates, not the movements of an index figure such as is available in Japan and Korea. They are also based upon turnover of a very restricted quantity of land released by the large land holders. The latter cannot very easily become "land poor," as has happened elsewhere in the world, because there is no tax on land. What this means is that the values created by urban improvements in roads, drainage, and water accrue largely to the speculators -- the latest example being the extension of Rama IV road.

A planner is challenged by such a situation, because the normal tools of urban development cannot be applied. Nowhere else is it so apparent that institution-building is a prerequisite to the further elaboration of the metropolitan transport-land use system. Moreover, policies must be chosen in such a manner that the speculators appear to profit more in the short run, and therefore not use their influence to oppose reform.

The best point for intervention thus far suggested would appear to be that of speeding the recording of titles by placing a nominal tax on land, but taxpayers are immediately assured of clearer claims to ownership. Moreover, they then hold investments that are more negotiable, so lending arrangements become easier. But such expediting action takes careful planning, ranging from increasing the capability for land resurvey to setting up special arbitration courts for resolving conflicts with a reasonable degree of speed and consistency. Thereafter assessments for improvements can make up a significant share of the overall cost of the project. Government funds could achieve much more impact.

¹Anon., Investor, Vol. 3, No. 8, Aug. 1971, pp. 677-82

Institution-Building in Communications

An example of the means by which modern institutions are built in Bangkok is provided by the Telecommunication Training Centre and its spinoff, the Test and Development Centre, at Nonthaburi and Pathon Thani on the Chao Phraya River a few miles north of the city. It was founded upon a general recognition in the overseas-trained members of the elite that telephones were an essential feature of the kind of modernization they thought appropriate for Thailand. Telecommunications increase the capacity to govern because they speed up the response of government to local emergencies and they permit a much higher degree of coordination between departments, agencies, offices, and enterprises in the private sector. The government could no longer depend upon foreign concessionaires to develop such an essential utility, once they had their own engineers and technicians. The program was expedited by the International Telecommunications Union (ITU) and the United Nations Development Program.

Telephones have lagged in Bangkok. Only about 100,000 lines could be used in September, 1969, but expansion is due to be accelerated over this decade. According to plan the network size would be trebled by 1975 and almost doubled again by 1980.

The Training Centre had to start from the very beginning with translation of the training manuals used elsewhere in the world, establishment of dormitories, the acquisition of equipment, and formulation of a recruiting program for the various levels of trainee. Nevertheless, since 1965, it has produced 5,000 trainees and now operates at about 1,200 a year, almost double the planned rate. The Test and Development Centre provides a place for checking out new and existing telecommunications equipment, and a base from which improved

operating procedures can be worked out as well as the plans for developing a system that fits the country's needs for communication. The extra push that was needed to overcome obstacles very often came from the Armed Forces of Thailand, but the military influence within the institution is difficult to isolate. The most effective technical assistance thus far has come from India, after a somewhat shaky beginning originating in Australia.

From this base Bangkok is expected to link up the countries of Southeast Asia -- Laos, Cambodia, Malaysia, Burma -- tying them to the communications satellite already over the Indian Ocean. The present impasse is between the Telephone Organization of Thailand, which handles domestic telephones and the links across the boundaries, and the older Post and Telegraph Department which has the micro-wave relays transmitting television from Bangkok to the lesser cities of Thailand. Once the two systems are married to each other, the channels for modernization will be vastly amplified. Ultra-modern technology seems to be introduced into these societies much more rapidly and smoothly than the earlier era based upon the diesel engine, electric generator, and the printing press. The latter are now dependable, almost invisible mainstays in these metropolitan communities with mature, self-sustaining institutions to back them up.

Institution-Building at an Earlier Stage - Family Planning

The rate of population growth in Thailand is now estimated at 3.3% per year, which is among the highest in the world. Thai women average about 6.5 births over the reproductive period of life. All the concomitants of such growth are everywhere evident -- a very youthful society, a housing shortage, schools that bring the population up to literacy but can take only about 2.5% of the age class to higher levels, and an expressed desire on the part of women for smaller families. In 1968 surveys showed that suburban women, who comprise a relatively educated population, were succeeding in reducing births by 15% over a rural district used as a control. Thai women among the contraceptors are distinctly under-represented, while Chinese most frequently use the available services. At the government level, recognition at the policy level has been given to the forthcoming population crisis, but it has yet to be followed through with the provision of adequate funds. A "Family Health Project" began in 1968 and became official in 1970; about 5,000 workers have been trained and 3,500 clinics organized. About 5% of the population in need is presently served.

The number of acceptors has roughly doubled each year, reaching 225,000 in 1970. The method of contraception now favored by more than half of the early adopters is the use of pills, while female sterilization is preferred by about a fifth. Now a five year plan has been formulated with the aim of doubling the number of acceptors in that period and establishing an integrated family planning program capable of much more comprehensive services in the decades to come. The aims are still modest, particularly those for reaching 7.5% of the

target population by 1976. The Project received only \$500,000 from the Thai Government for 1972, a bit over a third of what was requested. However, four times that amount is expected from overseas sources, most of it in the form of pills and instruments with the major share of the aid coming from Germany.

Thus the prospects of effecting a rapid demographic transition, the kind that is dramatically accelerated in South Korea today and has gained momentum in Taiwan, Hong Kong, and Singapore, does not seem likely in the Thai culture even for Bangkok. The prospects are for the overall population to double in size over the next 20-25 years, and for Bangkok and environs to quadruple. This population pressure will spill new urban settlements into the adjoining countryside at an increasing rate. People trying to cope with the rush hour traffic now, shudder at the thought; they imagine that multitudes more vehicles will be queued up at the circles and the bridges.

The Vehicular Community

Far more threatening for Bangkok's immediate future is the growth in the population of motor vehicles. Roads are now predominantly asphalted, even in the interior, so that the movement of people and produce has been vastly speeded up. The most recent data show that growth in numbers has been reaching 20% per year, with the number in the countryside expanding as rapidly as in the metropolis. The figures (Table 1) show clearly also the ascendancy of the automobile. Observation of the varieties of buses and trucks on the road suggests that the bus-and-truck category has split into two categories, one of them a slower-moving heavy vehicle with much higher carrying capacities than

Table 1

Growth of Vehicular Population: Thailand

	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
Reg'd Vehicles	63,900	78,000	83,800	88,600	105,900	115,900	135,600	156,800	188,500	226,500
Bangkok Region										
Remainder of Thailand	47,900	56,400	71,000	88,800	113,400	148,400	191,000	215,800	274,500	324,200
Total	111,800	134,400	154,800	177,400	219,300	264,300	326,600	372,600	463,000	550,700
Buses and Trucks	43,100	50,500	56,300	65,400	77,200	85,700	93,500	96,800	107,300	118,100

Source: Ministry of National Development,
THAILAND--An Official Handbook--1970

at the beginning of the period, and light vans that are often used jitney-type-baht-buses as well, that keep up with the regular private automobiles on the road. In the latter case, capacity is enhanced over the regular bus due to an increase in speed and penetrability of the narrow soi, the latter feature substituting for the 1-3 passenger samlors. The samlor (scooter-cab) is scheduled for extinction, because no more licenses will be issued.

Buses and trucks are relatively well maintained, so that the fumes, though nauseous and producing a haze in many of the streets of the older parts of the city by evening, are rarely black. The streets themselves are also relatively well maintained (for Asia), even at the end of the rainy season, when poor drainage can cause localized washouts.

It is obvious that something must be done about the population explosion in autos, at a time when foreign exchange is becoming exceedingly scarce, so the rumors of an addition to the excise tax are persistent. So far the denials have been equally persistent. The unfavorable trade balance with Japan, source of more than three quarters of the new vehicles, suggests that the government has no real alternative. With it would come bargaining for a major assembly plant in Thailand. General Motors has just dispatched a vice-president to look over the situation.

Building the New Bangkok

Four corridors are building out and away from the original palace and the seat of government. The oldest of these is the shoreline of the Chao Phraya River. A series of landings at the riverside are served by launches carrying workers from the dense inner city to the factories downstream interspersed among various port and naval installations. The more recently evolving corridors are based upon the original railway network, which moves out to the east, west and south, and were paralleled by one or two roads that bridged the klongs to meet up with rice paddy and banana plantations, interspersed with fruit and palm trees. Tracts of middle class houses and squatter settlements are separated by distribution centers, factories, private schools, military specialization centers, all as automobile-oriented as the Don Muang Airport on the north. Sketchy estimates suggest that 50,000 households are living in the squatter settlements, the largest of which is Klong Toey, adjacent to the Port on a loop of the Chao Phraya. The number may well be an underestimate because it is obvious that neither police registration or the Census can estimate this portion of the population any closer than 30%. Kong Toey contains about a tenth of the total.

How can the government keep housing expanding at least proportional to population? It has experience in the recent past at Din Doeng with pukka apartments for the middle classes, civil servants in this case, but they cost about \$4,000 per unit. Complicated deals based upon international credit are being discussed, but they require government subsidy with the existing salary level, which allows a rent payment of \$10 per month.

Estimates have been prepared in the National Building Research and Development Centre for five different alternatives (Table 2). The difficulty with the "site and services" approaches is that very little experience has been accumulated with their management. Moreover there is much less leeway for graft. Fortunately a number of young people have been trained and are already in government who could learn the ins and outs of self-help with little or no government subsidy. The site-and-services approach is likely to generate votes for those who make it work, so that increasing democracy at the community level is expected to be coincident with a continuous program of guided expansion at the periphery of Bangkok.

A 1970 survey of Klong Toey (Table 3) showed a median income of \$61 per month (to be compared with medians of \$30-40 reported by Peace Corpsmen in the villages up river). One has a strong suspicion that only legal income is reported and that various kinds of windfalls, many of them based upon smuggling and salvage, are not included. The number of TV antenna in the squatter communities gives some visible evidence nowadays of unusual sources of income and the number of motorbikes taking off in the morning from those precincts provides another good indicator.

Table 2
LOW COST HOUSING ESTIMATES FOR BANGKOK - 1971

Type of Provision for Housing	Private Lot Size, per Dwelling Unit m ²	Public Land, per Dwelling Unit m ²	Density - Persons per Hectare	Land Cost, Edge of City, per D. U. \$U.S.	Development Cost of Land per D. U. \$U.S.	Construction Cost per D. U. \$U.S.	Total Gov't. Investment Edge Inside \$U.S.
Site and services only - on filled land	82.5	55	386	1037	200	--	1538 2575
Site and services with platform, toilet	82.5	55	386	1037	200	500	2038 3075
Site-services, 2-story row 3. unfinished, 42 m ² floor	66	44	482	833	625-687	1000	2528 3292
Site-services, 2-story, semi-detached, 42 m ² floor	123.8	82.5	257	1556	1172-1289	1000	3852 5297
Apartment, 5-story flat, 35 m ² floor space	37.6	25.3	849	475	357-393	2250	3118 3557

1. Forty per cent of a total undeveloped site is reserved, half for circulation, and half for market, school, playgrounds, office.

2. Services include roads and walkways, land fill, drainage, water, electricity, but not sewers.

3. End walls, windows, stairs, ground level floor, and partitions installed by tenant-owner.

Source: Working paper by Khun Rataya Chantian, National Building and Development Center, June, 1971.

Table 3

Income Distribution in a Bangkok Squatter Community--1970

<u>Income Range</u>	<u>Per Cent of Households</u>
Under \$20	5
\$20-40	23
40-60	21
60-80	16
80-100	13
100-140	11
140-220	7
over \$220	5

Source: Thammasat University
Survey of Klong Toey
Slum, 1971

Allowing 10-20% of income applicable for rent or self-help housing it seems apparent that as many as three-quarters of the squatter population could avail themselves of either site-and-services or a condominium apartment scheme. The remainder may be able to make these levels after they have learned to make their way in metropolis or they may lose out altogether and go back to the village, to be replaced by younger and more adventurous individuals from the countryside.

The next five years appear crucial. If the land market can be organized and the management of site-and-services techniques mastered,

a new Bangkok would unfold and local democracy displace the traditional bossism. Almost all the needed managerial resources are present. It would take only a handful of bright young men and women with encouragement from the top to put it all together. But so far there is no signal from the gerontocracy at the top. A political reorganization, such as occurred in South Korea around 1960, seems to be a prerequisite for sustained progress.

