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Japan's Advanced Information Cities

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Japan is engaged in an awe-inspiring flurry of experiments, charged by more energy sources than one. The country exhibits an unabashed esprit of risk-taking and innovation, in seeming contradiction to its complex code of cultural conventions. It is obsessed with the future. And the planners and the designers of the *topoi, loci, places* of tomorrow's Japan do not hold back. Nowhere is the frenetic search more apparent than in current architecture, and in city building.

The City in a Post-Industrial Mood

Many postwar Japanese cities have developed as dense and drab containers of economic activities, the incidental result of accommodating production facilities, the work force, and transportation requirements over mostly agricultural land. Urban relics are found as encapsuled foreign bodies. But recently cities have come to be understood as articulators of "civic" aspirations and potent spatiovisual sculptors of social reality. New cities and urban areas are crafted into stage sets for postindustrial market spectacles. Cities and their architecture are indeed highly expressive of several underlying dynamics of Japanese society, and many have begun to transmit a sense of enthusiasm about greeting the future with an array of scenarios. Cities engage in more or less open competition, vying for new industries in these times of perceived higher mobility of both industries and populations. Especially the smaller ones advertise themselves with new images of "quality of life" and

"livability," while seeking to add metropolitan aura and access to the attraction of lower land prices. Civic identity and city image have emerged as key objectives of municipal planning. Waterfront developments, pocket parks, and pedestrian amenities are three familiar themes discussed in city planning offices.

The public role of urban architecture and the concept of public space are undergoing some fascinating changes. In traditional settlements the form and structure of shared space has expressed and supported a sense of collective self, and helped root the individual in society, at least in our own romantic view. Today, the quasi-public, streetside appearance of the industrial and postwar Japanese city is equally expressive of contemporary priorities. Since there is, at least traditionally, no concept directly equivalent to "the public" in the Graeco-Roman meaning of the word, in principle recognizable in Europe or the United States, there is also no such function for the streets and squares of Tokyo, Osaka, or Kawasaki. A European-style city center, found missing by Roland Barthes in Tokyo,[1] appears inconsistent with Japanese political traditions and space-use conventions and, for different reasons, inconsistent with the United States' urban civilization as well. Common areas, with the exception of thoroughfares and major streets, are the sum of more or less openly claimed realms.[2] The public spaces easily accessible to Western recognition, such as Yokohama's waterfront, are the

result of foreign-inspired fashion, designed to signify wordliness on the part of the sponsor, or built to accommodate expatriate communities. This has changed over the last decades, and recent concerted efforts described as "internationalization" reinforce a public tone in the media. The cultural iconography of television, newspapers, and urban form is now routinely marked by eclectically "international" allusions, however perfunctory.

Quite literally, three English expressions feature prominently in Japanese discussions about city form and development: identity, image, and participation. The pursuit of image in facility improvements, with the planned participation of workers and citizens, is expected to lead to a sense of identity, the citizen's personal identification with city progress. Such identification is greatly aided if the goals are straightforward. Tokyo's immediate neighbor to the South, Kawasaki City, for instance, very actively seeks to become more attractive to commuters, mobile families, and individuals, to support the new facilities it so forcefully pursues. It acts to attract new industries in the wake of the disappearance of older ones, the mass production facilities, shipyards, and steel mills. Bright pedestrian areas, street flora, and a general concern for public amenities are visible throughout the city, which has in the past often been seen as an anonymous and polluted stretch between Tokyo and Yokohama. And now it has adopted a renewal theme directly reflecting

the very industry it most wants to host, the high-technology firms such as communications and information technology based companies. Here, too, "advanced information" has become the dominant catchword.

Laboratories of the Information Society?

Technological innovation, economic development, and issues of social progress combine to form the Japanese phenomenon of information city building. The development of cities has always been sensitive to technological changes, such as innovations in defensive techniques, transportation systems, and building methods. The challenges posed by changes in the means of information transmittal are perceived as equally dramatic. They are explicit in the new media, in their advanced technologies, and in the issues both raise.

A new generation of information-handling techniques has begun to permeate production and culture in the industrialized world. Literally everyone in the globe's most affluent regions will soon be affected by interactive television, the narrowcasting of news, fiber optic networking of small computers and large cities alike, remote social services and educational programs, public data banks, and urban control systems. Citizens, government decision-makers, corporate executives, city planners, and the designers of city places and information products are presented with a palette of bright opportunities and critical constraints.

Many of Japan's cities serve as experimental settings for their own transformation into communities enhanced by the purposeful application of advanced information technologies. Several authorities of the central government steer and monitor these developments. One of these concepts seeks to link the new media cities into a national network of high-speed transportation and intensive data flow.

The background of these initiatives is a society in transition, and one which discovers its role on the global stage. The economy is shifting its base from heavy industry and mass production to activities in the finance and service sectors, advanced technology, and more flexible market responses. Family sizes are shrinking, and mobility is on the increase. International influences are seen as strongly infiltrating traditional societal values, while there is a growing orientation toward consumerism amid the perceived rise of the individual. Finally, a crisis of confidence is shaking Japan's rigid educational system.

The Case of Kawasaki

The city, one of the abutters of Tokyo Bay, is quite representative for the types of metropolitan fringe areas in which a major portion of the Japanese population works and lives, ranging from the suburban quarters to the heavy industrial zones. Kawasaki has set out to introduce the new technologies on an unprecedented scale, for the main purpose of boosting the quality of life itself. Prime

objectives in Kawasaki's planned transformation are a renewed image as a comfortable, healthy, and stimulating habitat, the satisfaction of citizens' educational and cultural needs, better and more useful government services, and openness to the nation and to the world.

Kawasaki's ideas are very much embedded in the national context of city wiring initiatives. In the United States, "wired cities," to the extent they still are seriously pursued, are a phenomenon at the local level and of private and public collaborative efforts. In Japan, they are initiated by the central government. The United States' experience with wired cities has been sobering and cast a pall on the initial enthusiasm of the 1960s. Major findings from a range of past initiatives seem predictable in retrospect. Anticipated network diffusion rates were too optimistic, and one-way entertainment was ultimately more successful than the kinds of programs offered, such as interactive polling or information services. Technology and infrastructure alone turned out to be meaningless without well-conceived programming, except in experiments catering to people interested in expressing a certain life-style. Milton Keynes has come to be known as one such example.

In Japan, the national government has taken a forceful lead in the pursuit of this dream, which dates back to the early 1970s. There is less concern with the failure of individual experiments than with the persistent pursuit of infrastructural innovation and new

markets on a broad front. Major players are various ministries, broadcast, telephone and railroad companies, and leading computer and telecommunications equipment manufacturers. The ministries sponsor competing sets of experiments, both announced in 1983. Twenty New Media Communities and 128 Teletopia initiatives are all based on initial phases now largely complete, with mixed results. Teletopia, for instance, is based on the Tsukuba experiment and its Highly Integrated Information Communication System, involving 10,000 participant users in research, industry, and the general public. Home services were intended to facilitate teleshopping and -banking, utility telemetering, educational programs, information from local government and businesses, and television services.[3]

Kawasaki and other long established cities seek to benefit from these new-town, often biased programs geared toward the citizen as information consumer. More significantly, it wishes to base these telecommunication initiatives on two legs, one physical and one financial. The city looks for ways of providing networked buildings and sites for public discourse and for new industrial investment in "technopolis" initiatives, i.e., in programmed, sponsored and serviced research, development, and production environments.[4] Under national guidelines on enhancing regional information services and industrial cities it has designated a new city center as a "Teletopia" model, the central city itself as

a model zone under a parallel "Future Information Metropolis" plan, and these and three other regions as model zones under the "Intelligent City" plan championed by yet another ministry, a program specifically seeking to endow urban areas with new nervous systems and intelligence nodes.[5] A private railroad company sponsors suburban fiber optic networks, and the city plans a new center for the development of information infrastructures, to be undertaken by both the public and private sectors.[6]

A Call for Model Ideas

Kawasaki is somewhat unique in the group of national information city initiatives. It forcefully emphasizes civic identity and urban image, and "Campus City Kawasaki" has become a slogan for its determination to become the world's first city-wide learning environment.

In 1987, Kawasaki City hosted the International Concept Design Competition for an Advanced Information City, which drew over 200 responses from more than 20 countries. The proposals are wide-ranging, from quite literal physical proposals to educational concepts and city wiring diagrams. Five of these projects are presented here, selected not because they are particularly representative but because their authors chose to articulate both information city concepts and their possible physical, place-making implications. Their proposals are presented rather uncritically, inviting the reader to arrive at his or her own conclusions. Fourteen

final prizes were awarded, in four categories.

Certain themes were given: the idea of building a "Campus City," the transformation of Kawasaki into an open university, where every laboratory, office, or household could become a classroom wired into a city-wide, even international network; the notion of internationalization; and finally four optional themes for further detailing: Intelligent Plazas, Kawasaki Institute of Technology, Campus City Festival, and Intelligent Network.

The competition was organized by the Japan Association for Planning Administration and Mainichi Newspapers, supported by fourteen ministries and agencies of the national government, and sponsored by a number of major high technology, telecommunications, and construction companies.

Notes
1 Roland Barthes, *Empire of Signs*, (New York: Hill and Wang, 1982).
2 Note also Bun-san's musings in John D. Morley, "Pictures from The Water Trade," (Boston/New York: Atlantic Monthly Press, 1985).
3 William Dutton et al., *Wired Cities—Shaping the Future of Communications* (Boston: G. K. Hall, 1987).
4 Sheridan Tatsuno, *The Technopolis Strategy: Japan, High Technology and the Control of the 21st Century* (New York: Prentice Hall, 1986).
5 Fumio Hasegawa, *Tokyo, A Highly Information-Oriented City* (unpublished manuscript, MIT, 1988).
6 United Nations Centre for Regional Development, *Information Systems for Government and Business* (Nagoya: 1987).

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