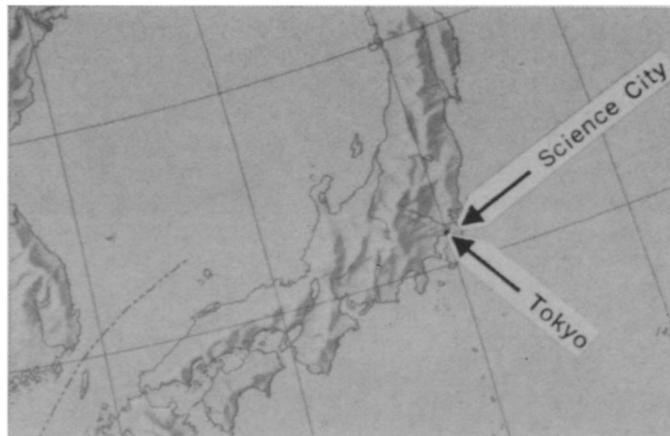


creating a science city

Over barriers both traditional and bureaucratic Japan lays a base for a new scientific surge



Japan will have a unique new Science City 40 miles northeast of Tokyo by mid-1975; a home for 160,000 scientists, educators, engineers, technicians and their families, in a relatively unspoiled area of 10,000 acres.

Some early problems have been resolved for this Kenkyu Gakuen Toshi, but many remain. These may be solved by patience and negotiation, or they may sprout up from time to time, even to the point of thwarting full materialization of the ambitious scheme.

The problem of cost—a staggering \$1.5 billion, broken down into \$750 million for new construction and relocating facilities, \$444 million for public works, and \$111 million for highways and improvements in the existing electrified rail facilities—appears solved. The Japanese Government, after lengthy footdragging, has boosted its appropriations year by year so that financially the project should be secure.

The problem of site selection also took time, since many rival prefectures offered space for the Science City, hoping to thus attract Government money. Shizuoka Prefecture put forward a wilderness tract at the foot of sacred Mt. Fuji; Yamanashi Prefecture an upland meadow area not far from the prefectural capital of Kofu, and Kanagawa Prefecture murmured about a sandy stretch bordering the Pacific.

Officials heard all arguments, and then opted for land close to Mt. Tsukuba, in Ibaraki Prefecture, because acreage was easier to buy and cheaper; because a port was accessible and because abundant water was at hand from the Tone River as well as from Kasumigaura, Japan's second largest lake.

Closeness to Tokyo, yet distance from the overcrowded capital with its population of almost 11,250,000, was another factor in favor of the area.

The antagonism of farmers loath to part with their land, much of it traditionally owned, had patiently to be whittled away. Cash talked, however,

and today 68 percent of the required land is in Government hands.

Some farmers continue to wage a spirited fight, at least for higher prices. This could mean an additional, possibly quite heavy strain on the treasury.

Some bureaucrats, long embedded in Tokyo or the immediate outskirts, represent another problem. They indicate unwillingness to shift locations. In time-honored Japanese custom, these Government officials must be consulted, in time-taking *jidan* (face to face conversations) to save face in this ceremonious, hierarchical society. Talk can take time and hold back relocation schedules.

Authority rests basically with the Government's Science and Technology Agency. But other ministries are involved, such as the Ministry of Agriculture and Forestry, Ministry of International Trade and Industry, Ministry of Construction, and Ministry of Public Health and Welfare. The possibility of strife between jealous officials is only too apparent.

A professor of Tokyo University of Education, largest single unit to be housed at Tsukuba, and now located in downtown Tokyo, expressed doubts.

"Just to relocate our big institution," he says, "will present difficulty enough, before one considers that two other universities—part of Tokyo Medical and Dental College and the Library Junior College—let alone a good 30 other research institutes, private laboratories and centers—will also be involved."

An official of the Health Ministry is anxious lest "there will be much squabbling for the most desirable sites, and much back and forth intra-ministry talk as to which center or what research facility should be located where."

He points out that plans called for setting up "many quite large units in a relatively small area," including the National Research Center for Disaster Prevention, the National Institute for Research in Inorganic Materials, the

National Research Institute for Metals, the Common Research Center for general use, the Arctic and Antarctic Polar Research Center, and the Research Agency of his own Ministry.

There has been much talk of late in Diet committees that the Science City, for all it would focus world eyes on a unique Japanese program, could be encompassing more than it could digest, even with plans not calling for completion before mid-1975.

Legislators point out the great diversity of institutes as perhaps a hindrance, not a help. The future model city, linked to Tokyo by a six-lane highway and better electrified trains, will, according to present plans, hold facilities for studying meteorology, industrial arts, natural resources, textiles, fermentation, nutrition, cancer, leprosy, geology, industrial science and technology, agricultural engineering and experimentation, animal husbandry, sericulture, animal health, foodstuffs, forestry, fishing boats, plant virus, and regional fisheries research among others.

Old established institutions will have the hardships of relocation; newly founded institutes will have even greater problems of getting sufficient funds, enough attention, and proper locations.

These latter will include the Research Center for History of Nature, the Research Center for Physical Strength, the National Language Research Institute, the Institute of Statistical Mathematics and the Elementary Particles Research Institute.

Even an official of the Science and Technology Agency, sparkplug of the Science City concept, admits that problems exist now, and may well continue to exist. He even notes that of the 160,000 people total, some 55,000 represent those who work for and owe allegiance to the Government.

"Care must be taken," he stresses, "to see that this one-third of the planned total doesn't run roughshod over the other two-thirds." *Stuart Griffin*