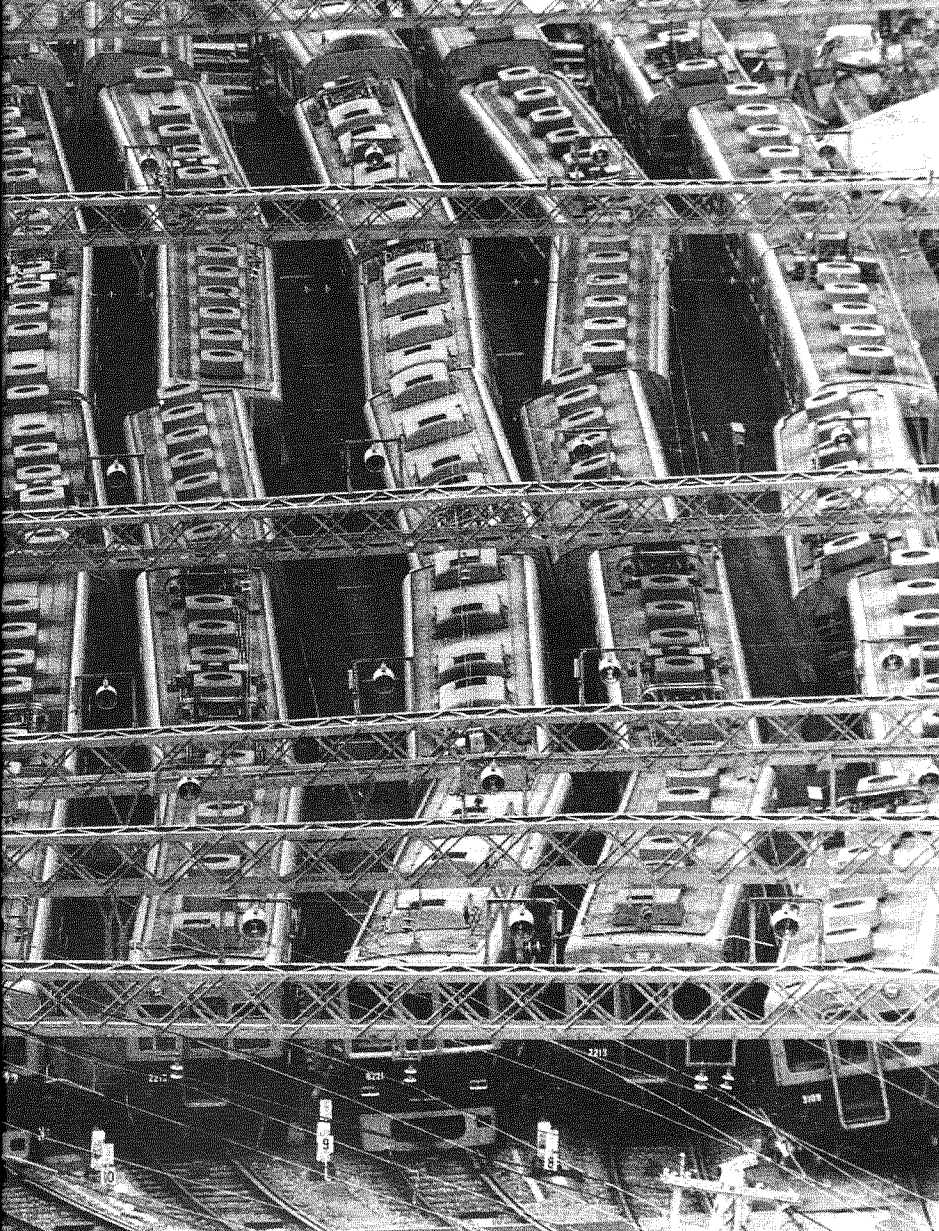




Derailment in the train yard KYODO

the Transportation Bureau said he simply prays that Tokyo will not be hit by such a strong quake.

The current disaster relief plan of Tokyo, which was drawn up to deal with damage caused by an earthquake the size of the Great Kanto Earthquake, was compiled over the past two decades.

Officials are confident in the efficiency of the plan, as long as the shock from the next big quake does not exceed that of the 1923 temblor.

"But we cannot imagine what will happen if Tokyo is hit by a quake like the Jan. 17 killer quake in the Hanshin area," said Mikio Morita of the Transportation Bureau.

Some private experts question whether the current disaster relief plan would even be sufficient to deal with a quake the size of

the Great Kanto Earthquake.

Expressways in Tokyo, some of which are older than the Hanshin Expressway, are not necessarily stronger, they said.

"The (Hanshin) quake collapsed the myth that these structures are resistant to quakes," said Nobuo Nishimura, a professor of civil engineering at Osaka University.

Experts have found that the quake, which originated in a fault running directly under the heavily populated Hanshin area, caused strong vertical as well as horizontal movement. Current building standards are not designed to withstand such vertical shocks.

"To prepare for a massive quake similar to the Great Hanshin Earthquake, safety inspections of buildings, including ward and city offices, hospitals, schools and oth-

er public facilities that would be used as shelters, should be conducted promptly to determine whether they will serve their role properly," said Yoshio Kumagai, an associate professor of urban disaster prevention at the University of Tsukuba, Ibaraki Prefecture.

"Reinforcement of such facilities and of transportation facilities is one of the few things that can be done in Tokyo right now," he said.

Nakabayashi of Tokyo Metropolitan University, one of the people who drew up the disaster relief plan, said much more practice and drills are necessary to ensure that relief activities are carried out smoothly.

"I expect stored supplies, including food, water and other emergency goods, will be enough for survivors in a quake the size of the Great Kanto Earthquake, but if distribution is disrupted, the goods will be useless," he said.

Some urban-planning experts say the very concept of living in big cities should be re-examined.

"High density as a result of seeking only economic efficiency is making cities vulnerable to quakes. Living in big cities in itself involves the risk of massive damage from calamities like quakes," said Kozo Amano, a professor emeritus at Kyoto University, a specialist in transport and urban planning.

Major cities should not be allowed to become bigger and thus more vulnerable to quake damage, Amano said.

People should ask themselves if they really want to live in such cities, said Shigeru Kashima, a professor of civil engineering at Chuo University.

"Do we really want cities that are so congested and polluted? Having economically efficient cities does not mean the people living in them are happy," Kashima said.

To make cities better places to live, he suggested residents be allowed to participate in city planning.

"To realize that, local governments should disclose information," he said. "As a civil engineer, I feel I bear some responsibility for the tragedy that killed so many people. To prevent such a tragedy, individuals must start thinking of ways to make their voices heard in city planning."