

Teori arsitektur – Lecture week 11: Mega-struktur, Hyper-Modernism

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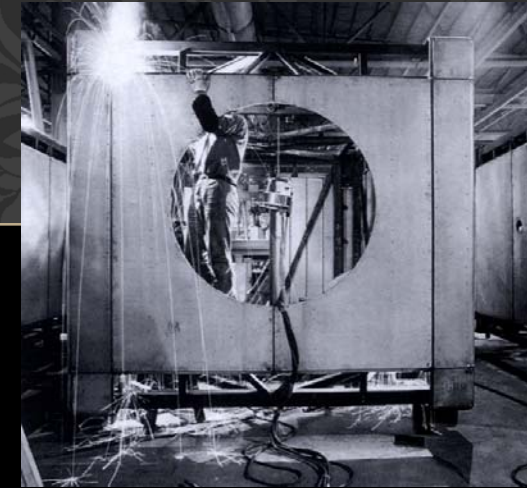
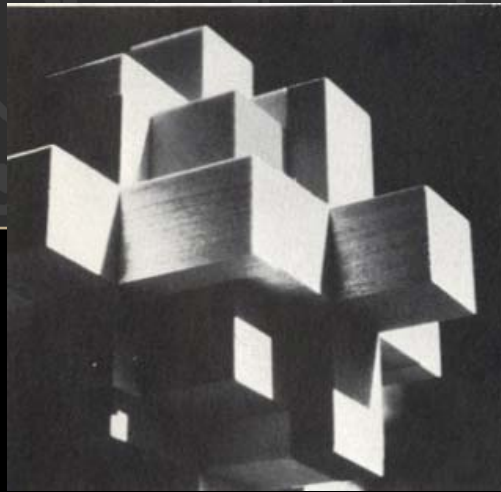
“METABOLISM IN ARCHITECTURE”

- Membagi ruang arsitektur dan perkotaan untuk memudahkan manusia mengendalikan lingkungan mereka sendiri.
- Membedakan antara bagian-bagian yang tidak berubah dan bagian-bagian yang harus dilestarikan, untuk memastikan bagian-bagian yang harus diganti secara berkala.
- Keterbukaan hubungan antara masyarakat dan alam.
- Keindahan tidak diciptakan semata-mata oleh seniman, tetapi oleh warga, pengguna dan penikmat, sehingga mereka berkontribusi terhadap suatu karya.
- Prinsip bahwa arsitektur harus mengubah dengan waktu, prinsip *replaceability*, dan pertukaran, dan siklus metabolik.

NAKAGIN CAPSULE TOWER



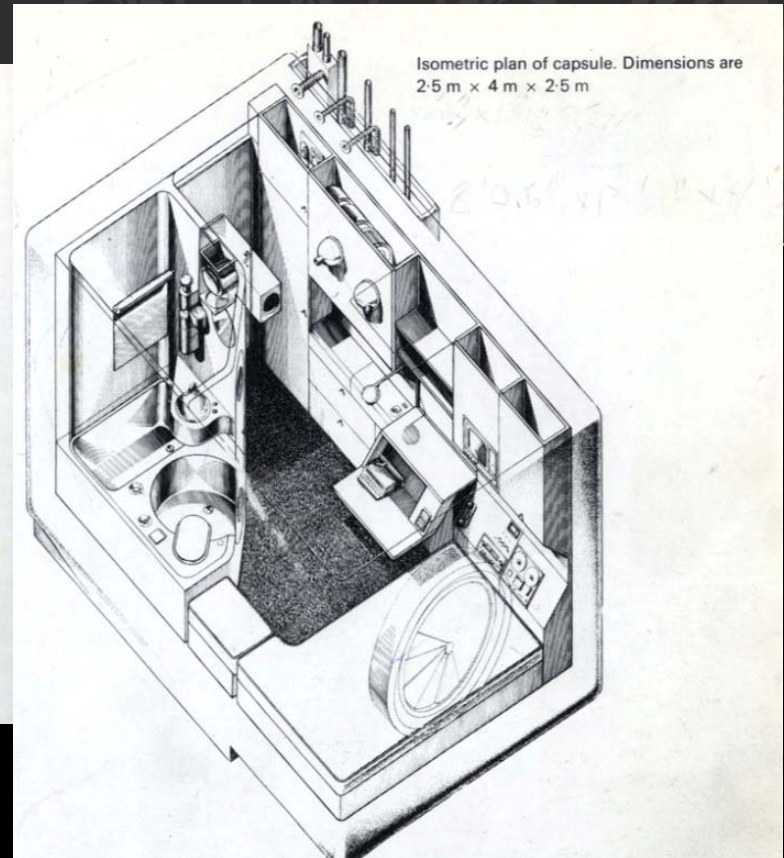
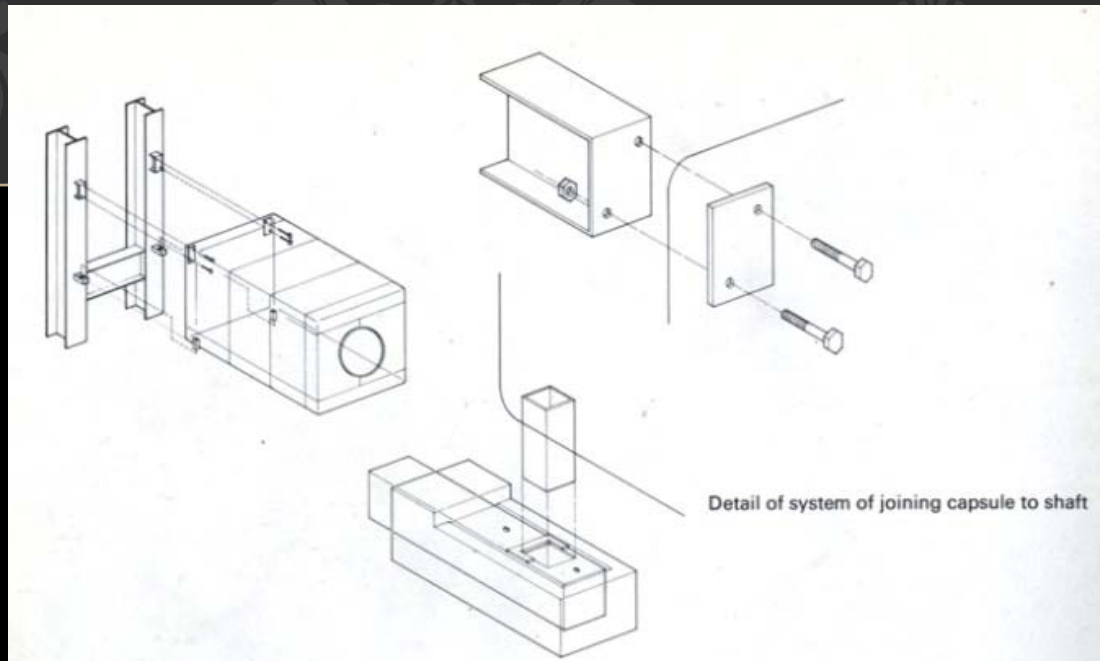
- [Design Conception] October 1969 – December 1970
[Fabrication] January 1971 – March 1972
- Site Area: 442 m²
Building Area: 430 m²
Total Floor Area: 3,091 m²
- *Capsule exterior*: Steel with sprayed paint finish
Capsule interior: Steel capsule with cloth ceiling and floor carpet
Towers: Corten structural steel frame
Lower levels: Fair-faced reinforced concrete



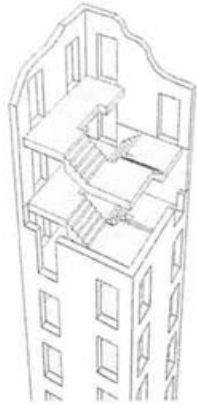
traditional Japanese puzzle game

The Nakagin Capsule Tower is a “mixed-system” structure, utilizing both **traditional architecture with modern technology** within one entity. It is made of two reinforced concrete and steel frame pillars of asymmetric heights, both housing public utilities such as stairs, elevators, plumbing, and electrical systems (Kurokawa 105).

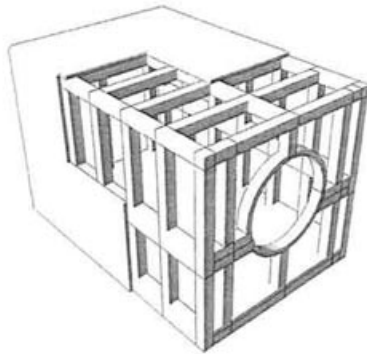




Kurokawa's design concept focuses on how to make the most efficient use of living space to accommodate the everyday essentials of a person. He borrowed the "capsule" terminology from the aerospace industry (already aware that many spaceships have implemented the idea of efficient area-usage) and retrofitted a rectangular cabin of 8 feet by 12 feet floor space with a built-in bathroom, double bed, desk, storage spaces, TV, tapedeck, typewriter, calculator, clock radio, and a 2-burner stove (Ross 71-72).

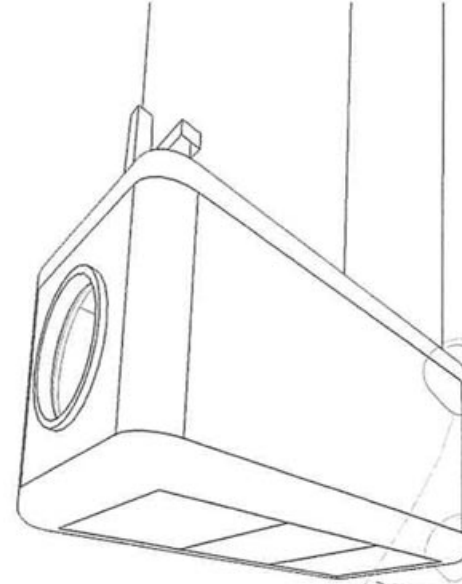
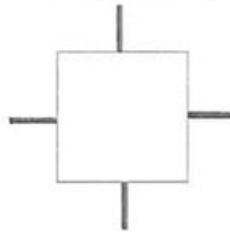
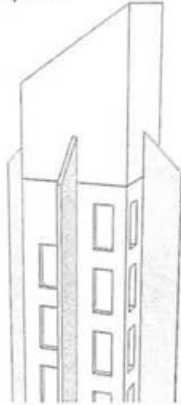


The lift shafts are circled by spiral staircases linking the many staggered levels. Constructed of precast reinforced concrete, the stairs were useable soon after each floor was installed and included components for the running of the lifts, reducing build

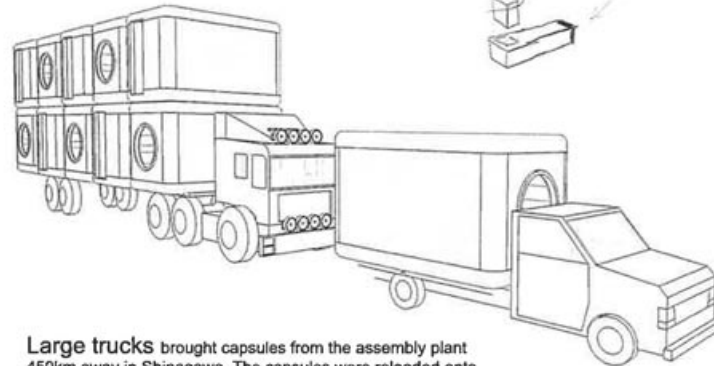
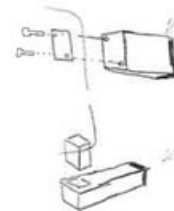


The capsules were prefabricated in a shipping container factory. They are welded lightweight steel-truss boxes. Clad with galvanised ribbed steel panels, a coat of rust prevention paint and a glossy spray of kenitex. (an impervious weatherproof plastic with estimated 20 year life span)

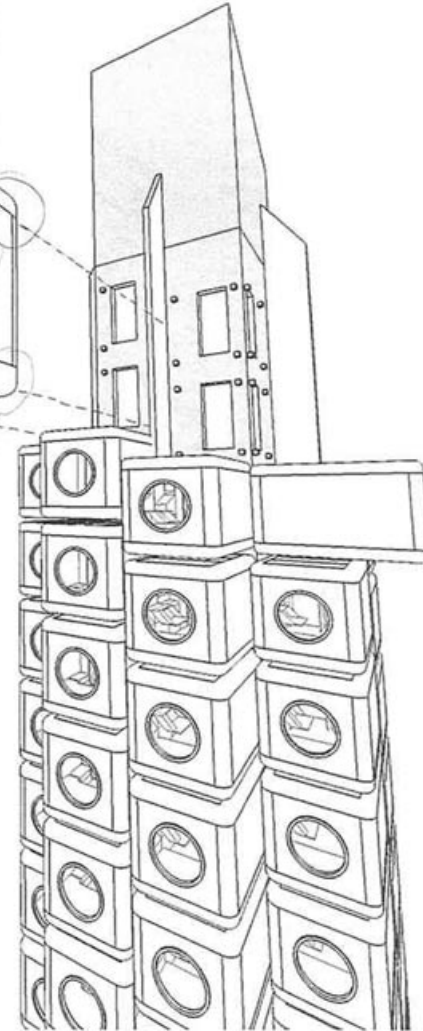
Service risers are in fact exterior fins on the lift shafts, concealed by the attached capsules.



Lifted by crane and bolted with four high-tension bolts to the lift core. All were attached in 30 days



Large trucks brought capsules from the assembly plant 450km away in Shinagawa. The capsules were reloaded onto smaller trucks before weaving their way into downtown Tokyo.



Fabricated Metabolism

A theory of constant mobility and change in the built environment.