

HISTORICIZATIONS OF THE TRANSITORY:

Architecture as a Sign of Modernity

A Place for Pao

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When the Metabolists first burst on the scene in 1960, Kiyonori Kikutake, a member of the group, wrote charming Japanese-language essays of a giddily exuberant architecture, growing as artlessly as weeds.¹ Lean towers rose above the ruins of post-war Japan; residents seeing sunlight glinting off a new housing unit as it was hoisted into place understood dewy-eyed newlyweds were entering their community. The effortless way these units were to be affixed to a structural core, by magnets, suggested a fluidly adaptable urban community. Kikutake was also obsessed with floating cities, made up of sail-like nets supporting small housing units above a sparkling sea, and he frequently used both plant and aquatic metaphors.

Kenzo Tange inspired the Metabolists, and became closely identified with the movement. In addition to Kikutake, the original group included the now-celebrated architects Fumihiko Maki, and Kisho Kurokawa; another architect less well-known abroad, Masato Otaka; a critic; a graphic designer; and an industrial designer. Most were quite young (Kurokawa was three years out of university, and Kikutake was 32 years old); their relative lack of professional experience was reflected in audaciously futuristic proposals. But the Metabolists used their newly established reputations to snag large-scale commissions. Sadly, in doing so, they lost their sense of play; Japan in the middle of the twentieth century offered architects little time to dream and ample opportunity to build. As the Metabolists embraced industrial solutions, their work began to reflect the bureaucratic hierarchy and corporate values that made it possible.² Rather than the liquid ideal of structures sailing in the air or floating on the sea, most Metabolist buildings expressed a leaden reality. The movement fizzled.

Tange, Kikutake, and Kurokawa each returned to their Metabolist beginnings in designs produced in the 1980s and 1990s. In particular, Tange and Kurokawa revived proposals for the extension of the city into Tokyo Bay. These proposals reflect the fact that many of the challenges which Metabolists took on – the collapse of spatial differences found along bullet train corridors, crowding, and a rootless society, where neither one's office nor one's residence can really serve as an adequate home base – remain.

INFLUENCES ON ITO

Toyo Ito worked for one of the founding Metabolists, Kiyonori Kikutake, from 1965 through 1969, leaving the office when he became disenchanted with the movement – but its original ideals stayed with him and led to the completion of his finest building to date, Sendai Mediatheque, opened to the public at the beginning of 2001. Mediatheque is not a Metabolist building, offered up 40 years too late. Rather, it is a building that springs both from the idealism of an architect's youth and the questions that have concerned him for much of his life.

During the 1980s, Ito emerged as one of Japan's most thoughtful architects, a keen observer of the challenges created by societal changes. His initial position was that the rapid, post-WWII economic expansion signaled an ephemeral and superficial role for buildings (some of Ito's were built for life-spans as short as six months). He was drawn to the unencumbered lifestyles young Japanese enjoyed and his clear-sighted designs for the "Tokyo Nomad Woman," Pao I (1981) and Pao II (1985), proposed a set of furnishings to accommodate the nomadic, consumerist lifestyles of contemporary Japanese women. Ito anticipated how today's rootless young people substituted portable communications networks to maintain a sense of place.³

Ito's earlier building for his sister, the 1976 "White U," is also important in understanding Mediatheque – while often treated as something of an anomaly in the architect's work because of its concrete construction, it was the first project where he attempted to create a self-effacing architecture defined by changing light and where the space lacks any divisions to define use or architectural intent. "White U" was torn down, after much family discussion and with Ito's consent, during Mediatheque's construction, causing him to revisit the ideas that led to its development initially.

A related project relevant to this discussion is Ito's 1991 installation for the London exhibition "Visions of Japan," where overlapping scenes of everyday life in Tokyo flashed across every surface of the gallery, creating a filmic effect. While this seemed at first glance more of Ito's investigations on making the ephemeral visible (e.g., the wind or the ebb and flow of sound), the use of flickering and rapidly changing visual information also led Ito to recognize the importance of movement in creating a sense of insubstantial fluidity,

and he returned to the use of large-screen projections based on computer-generated drawings of Sendai Mediatheque in the 1999 exhibition "Blurring Architecture" (and a smaller and less successful show held several years ago at the Osaki Museum, which was explicitly geared to digital simulation).

SENDAI MEDIATHEQUE

In his winning competition proposal for Mediatheque, selected from an open field of 235 entries, Ito offered up a latticed steel structure that might conceivably sway like seaweed on shifting currents. The tubes echoed soaring zelkova trees fronting the site and were barely interrupted by the building's paper-thin floor plates, all encased in a sleek box that deftly reflected the area's office blocks. While shimmering models can be spun from plexiglas and light, the challenge was to render this buoyancy in steel. In the early stages of construction, most visitors found the vigorous physicality of the structure exciting, but for Ito and the construction team, the ironic goal was to first produce this extraordinary structure, and then to reduce the forceful character of the steel, subsuming it to the experience of moving through the building.

Mutsuro Sasaki, one of Japan's most exciting structural engineers, is a fair match for Ito. Sasaki calls Ito's early sketches for Mediatheque "full of poetry." As he saw it, the steel tubes, twisting upwards, carried Mediatheque not only literally, but figuratively, and thus unlike many of his designs, the structure had to be revealed and as transparent as possible. The thirteen columnar structures are of varying diameter, loosely ordered in three bands that parallel Jozenji Street, which fronts the site. Two types of tubes run through the building: the wider tubes in the building's corners are almost 9 meters in diameter and take lateral loads, and their diameter also accommodates elevators and stairs. The slender tubes, as small as 2 meters diameter and more simply designed, take gravity loads; steel pipes making up this latter set of tubes become thinner towards the top of the building.

The tubes encase the energy of the building, and insure an ongoing flexibility; ducts, piping, elevators, and cables crowd against each other in the fattest tubes. (Eventually fiber optic cables will be added.) However, because these tubes are either filled or encased in glass, there is no empty shaft where one can stand and look all the way up to the sky - Ito's earlier works also frequently framed spaces beyond reach. Rather than reading as voids or resting places, the tubes are at their most effective when they are seen as objects or as encased movement shafts.

Meeting these tubes are the thinnest of floor slabs, influenced by Le Corbusier's 1914 Domino system. The top and bottom plates of the steel floor structure are unified by an internal honeycomb of short

steel webs which are legible on the underside of some unfinished ceilings. (Floor fabricators, accustomed to the norms of shipbuilding, expected that these internal webs would not be evident, but Ito's office pushed to have the floor structure indicated.) A concentrated network of triangulated webs at the stress points around the tubes gives way to tightly gridded bands that create lateral integrity in both directions of the floor plane, visibly attesting to the structural forces within the plates.

Openings in the floors at each tube frame random views of divers territories; because each layer is bathed in differently colored light and has unrelated finishes, there is a sense of looking into another building or another dimension, rather than the more prosaic visual connection of one floor to another. At night, the colors of artificial lighting seep through from spaces above and below, calling attention to the different realms stitched together by these shafts - something particularly notable where the blunt blue light of the basement parking areas is seen against the polished white marble floors and warm lighting of the first floor area called "Open Square." This space is the heart of the building and one of two places that holds the key to understanding Mediatheque. Truly civic spaces are rare in Japan: Kenzo Tange's efforts to insert the *agora* into Japanese cities after WWII may be the earliest attempt to create a deliberately communal and non-commercial outdoor space in Japan. Furthermore, the kinds of functions housed at Mediatheque (public libraries and art museums or galleries) were introduced in the later half of the nineteenth century, following Western models. Such spaces fit uneasily in Japanese social patterns, and even today, are often empty and superfluous, while shopping streets and train stations, whose uses do not differ significantly from the lively riverbanks of Japan's Edo-era cities, are packed. In Mediatheque, Ito bridged this gap, drawing on the energy of the street to create a highly-successful set of civic spaces.

The program of the building is not fixed, and the spaces have not been organized to suggest any sort of hierarchy or a sense of progression through the building. Floors could theoretically be reshuffled, and the program certainly will be altered over time, just as the activities on a street will shift and change. Yet the distinctive character of each floor remains important. The exterior of the building, especially the east elevation, facing the direction of the subway station, emphasizes Mediatheque's horizontal slices, displaying seemingly every approach to cladding a building, from Profilit glass channels to aluminum panels.

Because the shifting character of each floor was crucial to the building, Ito chose to collaborate with several of the most interesting young designers from around the globe on the interiors - two from Japan (both former employees of Ito's) and two from abroad. Kazuyo Sejima's field of flower-like sofas are sown amongst computer moni-

tors on the second floor, and Ross Lovegrove's weedy green tables and chairs shelter video equipment (an effect Ito particularly enjoyed). Both refer back to the metaphors that Ito exploited in his original proposal and to the Metabolist roots behind it.

In addition, Ito selected Karim Rashid to do the interiors for the first, fifth and sixth floors, and Yoshiaki Tezuka and Hirono Koike, former employees, to do the interiors for the third and fourth floors. The sculpturally minimal furnishings in Rashid's territory serve as anchors against the frenetic movement that surrounds them; their simplicity allows the building to take center stage. Tezuka and Koike were given by far the most demanding program, but keep the space clean and uncluttered. The library is also enriched by the subtle reflections on etched mirror finishes around the edges of the space, which throw back a soft blur.

The autonomy of each floor is also expressed architecturally: each floor-to-floor height differs and finishes are distinct, with only the unifying double-skinned curtain wall to the south and the twisting tubes of the structure shared in common. Artificial lighting, developed with a firm called Lighting Planning Association, underscores this character: the color, intensity and directionality of light vary. At night, even the uniformity of the southern curtain wall is undermined by the different lamp colors and the patterning of each ceiling grid, from the boldly free-form pattern of fluorescent tubes on the seventh floor, to the understated grid of tiny dots on the gallery ceiling immediately below.

In his earlier competition entry for the Maison de la Culture du Japon of 1990, Ito proposed an "outdoorlike environment that is more comfortable than outdoors," essentially rendering the façade "irrelevant." This sensibility is especially evident at the first floor of Mediatheque, where Open Square blends seamlessly with the street, an effect achieved not only by the large glass doors which can be folded away to the building's corners, but also because of the great height and openness of the interior space, which can serve as either a lobby or a gallery. I have visited the building numerous times, and the Mediatheque staff clearly prefer to leave this space open; as a result, most often it is inhabited by groups of friends who seem to have only just bumped into each other. As they chat, children run back and forth or play at their feet, and the scene is more like a street corner than the lobby of a public building.

This connection between the street and interior is not limited to the ground floor. The space sandwiched between Jozenji Street and Ito's first row of tubes is animated throughout the building. People are drawn to daylight along this southern edge (something Ito also exploited at Nagaoka Lyric Hall), and they sit looking out at the city beyond or walk to the elevators or stairs, their presence altering and enlivening the façade. While Ito strives to avoid creating hierarchies,

he appreciates the dramatic moment, and here (as in a similar space at the Nakameguro T Building), the façade becomes a stage.

Lynne Breslin, the architectural critic (and a long-time friend of Ito's), once called his work "...free verse poems on continuity and discontinuity."⁴ Ito uses glass to fully reveal the interior of the building, even exposing the receiving area to people riding up the escalators, but he also finds ways to dematerialize Mediatheque's solid planes and steel structure through light and reflection. The result is a building which is fluidly changeable, in keeping with Ito's long-standing goals to dematerialize architecture. Throughout Mediatheque, Ito emphasizes changes in light and reflection. Altogether, seventy percent of the exterior walls are glass, an astonishing 210 tons; inside the building, there is a kaleidoscope of reflective surfaces. Three kinds of glass surround the tubes; these enclosures simultaneously act as vitrines while also veiling the internal structure in reflective facets, an effect that derives from the fact that the glass around the tubes is not installed vertically. Rather than the internal tubes, you see fragmented images of people and buildings below, birds flying above, or white light splayed across the surface.

In addition to exploiting the changing quality of light and watery reflections, Ito also addresses the way movement through space changes what is seen, especially along the southern double-skinned glass façade that fronts the building. The outer layer of structural glass is fritted; the inner non-structural layer is s patterned with less expensive films. Glass ribs and slender steel rods allow these planes to read as layers rather than a three-dimensional system. From inside the building, the bar-code-like patterns on each ply frame narrow perpendicular views, and walking past them has a kinetic effect. (On the exterior, the patterns also further camouflage the paper-thin floor plates.) As the architect once noted, "instead of scenes that are clearly articulated like rooms in a building, I am trying to create scenes that shift imperceptibly from one to the next, as in motion pictures..." – a seemingly impossible dream, which he appears to have accomplished.

CONCLUSION

Ironically, although the premises of the competition were that a new type of architecture was needed to house new media, an explicitly digital character remains in the future and the fiber optics and fast computers first anticipated for the building are nowhere in sight. Ito chose to sidestep this premise by suggesting that a sufficiently flexible structure would best respond to nascent undertakings. This decision was not one taken lightly; the architect has been attempting to capture the visual character of digital media for some time. Here, however, he has instead arrived at the idea that digital energy is only one of a number of webs of energy that animate our buildings.

In place of the competition's premise, Ito offered a question of his own, one that has been central to his work for many years: how should architecture respond to the changes that have already occurred in society? Digital processing serves as a metaphor for the contemporary city, each defined by multiple and randomly ordered layers and phenomena having no material presence. Today's architecture, Ito argues, should make visible the currents of contemporary urban life, from natural phenomena such as sound and light, to the digital streams that ground our rootless society.

More importantly, Ito discovered that the effective way to achieve a sense of mutability in architecture was to make those who pass through the building active participants rather than passive observers. Conventionally, attention to movement translates as a choreographed procession, but the point at Mediatheque is explicitly not to establish a progression. Ito instead creates a sense of the world swirling around you, an effect heightened by momentarily framed views and by weaving alternative paths through the building.

Splitting the elevators into three separately controlled shafts, each elevator different in size and shape, is at first simply odd – but this holds the key to understanding Mediatheque. The three tubes and the nearby escalator smoothly rising to a small and precisely detailed mezzanine none of the elevators reach, effectively communicate to visitors the manner in which choosing a path will change how one understands Mediatheque. As you wait for one elevator, the others slide up and down close enough to entice, but too far away to catch, and the experience of being among them and within them creates an awareness of the web of movement around you.

Although it is not clear that Ito was preparing for crowds of several thousand each day (the popularity of the building has exceeded all expectations), the effect of splitting movement through Mediatheque not only allows each person to follow a distinctive path through the building but diffuses traffic, preventing crowds from becoming an annoyance, while the openness of each floor makes confusion impossible. This lack of hierarchy is another way that moving through the building has a sensibility more like the way we move through our cities.

Mediatheque is packed from the earliest moment it opens until closing, every day, in spite of the fact that the library is small and the galleries are, between shows, closed. Some people are using the building's facilities to see a video or check out a book – but far more are simply checking telephone messages, napping, visiting with friends, or sipping coffee in the cafe. It seems at first that the lack of engagement with Mediatheque's varied offerings suggests the building is just another of Japan's expensive and unnecessary public works projects. A provincial city offered generous support for a 21,682 square meter structure based on the airy idea that a new architecture was

needed to house new digital media – and then the majority of users seem to be doing nothing more high-tech than answering a cell phone. It may be, however, that this is precisely what an architecture for new technologies should be: nothing more than an extension of the street, where, rather than attempting to supply the latest technologies, the building simply accommodates the equipment that technologically sophisticated citizens bring with them.

Mediatheque has already turned sleepy Sendai from a backwater to a international cultural center, but most architects (including Ito) may never again employ such a remarkable structural solution, and others will certainly find it possible to imitate the beautiful double-skin curtain wall or the faceted fire-resistant glass that wraps the tubes. In fact, in recent interviews, Ito has repeatedly acknowledged the difficulty of producing Mediatheque, and the commitment it required from the constructors and designers. Even jurors confessed that in selecting it they decided for the concept, but questioned its constructability. (The building involved two of Japan's finest contractors, the highly-regarded Takenaka Komuten and Kumagai. Even so, at one point in erecting the steel, tubes shifted during welding, moving 30 centimeters out of alignment on a building defined by its extraordinarily precise tolerances. The architects and constructors struggled for several months before arriving at a solution, suggesting just how great the challenge of construction was.) Looking back, Ito sees the struggle as unlike his earlier experiences, and the triumph thus a sweeter one.

Clearly, though, the lessons for others are elsewhere: in demonstrating the rightness of what have been treated as unattainably airy and pedantic conceits, Ito challenges the architectural community to learn from the new paradigm he has served up. In his earlier work, he attempted to reflect the forces within buildings either through artful abstraction or sophisticated equipment that required a high degree of on-going attention. As a result, several of these structures, such as 1991 Egg of Winds and the 1986 Tower of Winds, no longer function as they were intended, struck dumb by insufficient funds. Perversely, while Mediatheque was lavishly funded (\$100-million/12,466,650,000 yen) in order to accommodate new media, Ito's building argues that digital and communications technologies are, in fact, best accepted as one of a series of forces that animate our architecture – the most exciting of which is our unencumbered movement through our cities which these technologies make possible.

NOTES

¹The English translations of these essays are, unfortunately, leaden.

²Robin Boyd wrote "One thing that distinguishes Metabolism from most other avant-garde movements is that it is so little ahead of the Japanese establishment", a statement far more true at the end of the movement than at

the beginning. See Robin Boyd, *New Directions in Japanese Architecture*. New York: Georges Braziller, 1968. p. 22.

³For me, it is not coincidental that the I-mode, a system for receiving and sending e-mail or downloading web pages and other data through a cellular phone, was developed by the wife of another Japanese architect whose work is clearly influenced by Ito. Using these systems, the young Japanese I know no longer make specific appointments in advance, for example, but rather set a vague time to be in touch, and then home in on each other and make spontaneous choices about restaurants and entertainment using their cell phones.

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