

# 18: COMMUNICATION MACHINE IN OSAKA

## A Communication Machine in Osaka

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Buildings that are difficult to fit into any one category often get a raw deal in history. An example that springs to mind is the Dutch pavilion for the World Expo in Osaka in 1970, designed by Jaap Bakema and Carel Weeber. At the Expo itself – a celebration of prefabricated, inflatable and mobile architecture supervised by Kenzo Tange – it certainly didn't strike a false note, but the contrast with the then prevailing Dutch architecture climate of democratization and small-scale work was enormous. Attention for the pavilion as an architecture project remained limited and, even in the oeuvre of Bakema, it seemed to play an isolated role.



Van den Broek en Bakema with Carel Weeber,  
Dutch Pavilion, Osaka Expo 70,  
1968–1970

Bakema himself described the Expo pavilion as a reworking of his unbuilt design for an observation tower in Rotterdam in 1957, later known as the Euromast. One of Bakema's most ambitious schemes, it is regarded as a continuation of the Wolkenbügel project by El Lissitzky and Mart Stam (Bakema's mentor). Bakema linked a form and agenda of his own to that principle by turning it into a system of floating and rotated volumes that collectively represent the relation of man to his environment, or in this case 'City – River – Europoort – Delta Works'.

Restrictions imposed at the Osaka Expo lowered the Euromast principle almost beyond recognition, but what remained unchanged was the strong composition of rotated volumes and the objective: the creation of a 'communication machine' that could help man relate to the various scales of his environment. In his report on the Expo project, Bakema also explicitly suggests how the concept could be applied as an urban intersection "to make many social conditions more widely manageable".

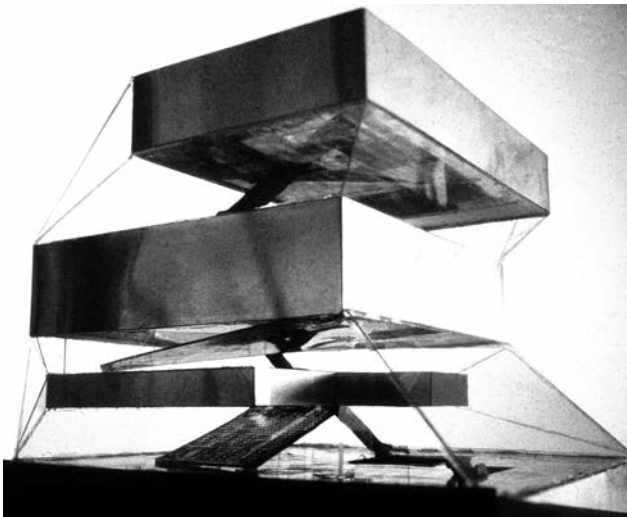


Van den Broek en Bakema,  
Euromast Rotterdam, model,  
1958

Some thirty years later, OMA in Rotterdam started the design of the Seattle Central Library. Behind what looks like

# 19:

a free-form facade lies a rational organization that displays striking similarities to those of Bakema's Expo pavilion: each of the four stacked volumes is rotated ninety degrees from the next to form, with the help of escalators, a series of public spaces. In both projects, both the spatial arrangement and the objective for which it is deployed are remarkably similar: the stepped platforms that rise upwards offer an opportunity to establish particular visual relations between the library and the city, while the system of 'squares' inside generates an abundance of relations between occupants and collection, turning the building into a genuine communication machine.



OMA,  
Central Library, Seattle,  
1999–2004

A comparison every bit as striking with the Osaka scheme can be made with the Museum aan de Stroom in Antwerp, designed by Neutelings Riedijk in 2000. Here the stacking principle as seen in Osaka is intensified to such a degree that it results in a vertical museum that reads as a prominent object in the city. Since the stacked and rotated volumes overlap considerably, they are able to support one another, thus rendering additional structures or columns unnecessary. Just as in the Expo building, the escalator route skirts around the perimeter of the building, however in Antwerp it also makes use of the leftover space between the cabins to form – wholly in the spirit of Bakema – a public street through the building. And just like in Seattle, the building succeeds in establishing a wealth of connections between visitor, program, ground level, and surrounding city, becoming the epitomization of communal use.



Neutelings Riedijk Architecten,  
MAS Antwerpen,  
2000–2010

Carel Weeber in particular has stressed that architecture is – and always has been – based on reproduction and not on the myth of originality. The fact that the work of leading architects is also an expression of their view on architectural history therefore comes as no surprise. Nor is it the conclusion to this story. What these examples clearly illustrate, however, is how Bakema's unique application of radical modern experiments to achieve human relations in the modern city are still totally feasible, especially when public buildings are deployed as interchanges of urban renewal.

