Soft- or Hard-Wares: The Pepsi Pavilion in Osaka, 1970
by Marcelyn Gow

In a 1965 lecture entitled „Technology and Environment“ given at the Vision 65: New Challenges for Human Communication conference, Marshall McLuhan provocatively stated that, „The city – under conditions of very rapid movement - takes on a totally new meaning. The motor car has served to destroy the city as it existed under the railway conditions. The future of [the] city may be very much like a world’s fair – a place to show off new technology - rather than a place of work or residence“.

McLuhan’s forecast points out the paradoxical relationship between short-term events and their long-term effects whereby, in some instances, the performance and organizational patterns of more enduring structures begins to emulate the logics of provisional activities. The electronic exchange of data constitutes the „very rapid movement“ which makes some functions of the city obsolete as it, as a physical space, becomes absorbed into the „complex integral world of electric information“. The dichotomy between a physical space and its operating procedures, or between spatial materiality and more immaterial attributes of a space, can be formulated through the terms hardware and software, which have been instrumental in shaping both a history of computation, a cultural discourse in the 1960’s, and have renewed relevance for the current architectural discourse.

McLuhan’s hypothesis, applied at a local scale, raises the question of the sustainability of architectural form. In other words what role does the hardware play in relation to what could be called software or operating procedures? Can structures be conceived to endure beyond a given cycle of use whereby new media induce changes in the programming of the structure or is this even a viable goal? Recalling Buckminster Fuller’s argument about „doing more with less“ outlined in his summary lecture from the same Vision 65 conference, one could speculate on the potential dematerialization of the architectural envelope or getting the building envelope to perform in a multifunctional manner as a malleable entity.

The term environment, frequently invoked by McLuhan to describe the impact of communications technology on human habitation and the physical surroundings was also significant in popular culture in the 1960’s on the level of an ecological understanding of natural and artificial systems. A significant step toward merging these concepts of environment in an architectural context was achieved in the Pepsicola Pavilion at the Osaka World Expo in 1970. The Pepsi Pavilion, a
provisional structure, is an early and important example of research on integrating an electronic, programmable environment into a habitable structure. A further aspect to the pavilion’s malleable environmental quality was E.A.T.’s concept of „live programming,“ whereby the more ephemeral attributes, the software, of the project could be altered by human interaction. The innovation in Osaka was to create a space in which nearly every aspect was responsive to „natural forces or human presence“, sustainable in the sense that the structure was adaptable and the architecture itself technologically performative.

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