

Ideas that Change and Stay the Same

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“What will this building become?” I interpret this to mean that initial design ideas are subject to various deforming forces at various distances in time from the original conception. Needless to say only a small portion of all built structures have any conscious theoretical content to speak of. I have decided to speak with projects which carry a fairly obvious even overbearing theoretical intention.

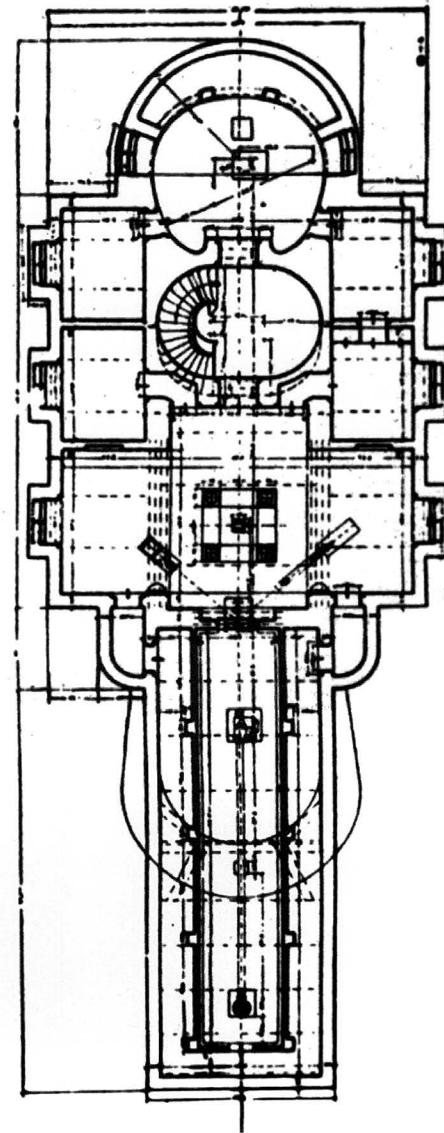
Perhaps the most interesting part of the process is internal to the designer, when he or she is struggling to preserve the strength of the idea against the reality principle trying to make its unpopular point that the idea is not possible, because you will need more supports which will obscure a key line or because certain members will need to be thicker which will bring everything boringly down to earth.

For the most part we can only guess at how such a process might have gone, but sometimes structural deliberations are carried on so long or run into such awkward expense that they become more public than the architect and engineer would ideally want.

I have three examples of structures where powerful ideas collided in different ways with structural necessity. The number could easily be multiplied and extended forward and backward in time. In the first example the idea is somewhat betrayed but survives. Mendelsohn's Einstein Tower of 1920–21 is a famous instance of a structure of specialized function and high ideological content. Mendelsohn attempts to embody a new vision of matter and energy in built form. He discussed Einsteinian physics with a scientist-friend and then produced a design which expressed his new sense of a fluid, shifting, fast reality. It was a conception dependent on relatively new technology, reinforced concrete construction. Without this structural option it is hard to imagine his thoughts taking the form they did.

Yet when it came to be built this technology was not available after all in the depressed German economy. Rather than give up the idea Mendelsohn rethought the structure in brick with a masking skin of render. The result is a building which looks like the original conception but is actually very far from it. After this time-consuming and in some sense failed experiment Mendelsohn never attempted a remotely similar design again. Thus, his career was strongly deflected by the mishap.

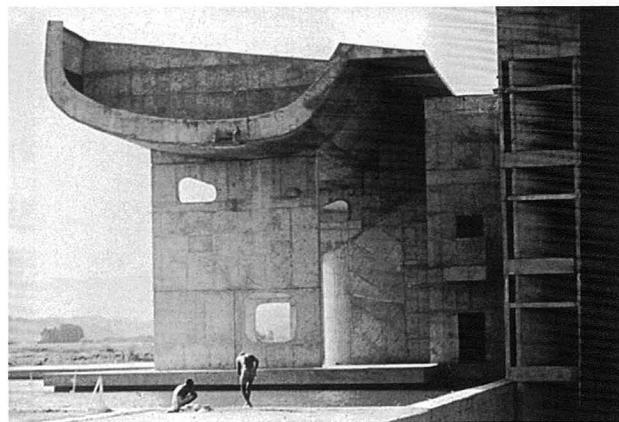
The second example is similar but contrary. Jorn Utzon's Sydney Opera House began as freehand sketches of flying forms. These sailing roofs survived through many vicissitudes. Engineer and architect decided that the forms must be realised



Einstein Tower Plan



Sydney Opera House (Courtesy of Bernd Foerster)



Palace of the Assembly by Le Corbusier, Chandigarh, India

in self supporting concrete. This integrity proved expensive—the building cost fifteen times the original estimate—and time consuming. This structure could have been much cheaper and quicker, so here there are differences over what the idea is, or what is essential in it.

The last example is Melnikov's own house in Moscow which like many of his early projects has managed to translate very sophisticated design ideas into the rudimentary building technology available in Russia in the 1920s. Construction photos show how the prismatic forms in the rear cylinder are worked out in brick. The difference between Melnikov and Mendelsohn is that the Russian, in a whole series of projects, delights to turn crude materials and finishes to strenuous intellectual uses. I don't know if he ever cast envious eyes at more advanced Western technology. I hope not, because this work stands as one of the great instances of the triumph of ideas over obstructing forces in material reality.

To see architectural theories brought to grief the best place to turn is grandiose projects replanning whole cities or ordaining new ones from scratch. Corb's Chandigarh is a famous and fascinating instance. Apparently there are virtually two cities here—the ideal one Le Corbusier intended and the messy backstreet world of small traders, like a traditional village, which has colonised part of the large empty shell, as humble creatures might make a decent living in an obscure corner of a gigantic carcass. It is an old story: the most grandiose human conceptions like Versailles have inspired migration to the periphery and the erection of miniature enclaves founded on contrary principles to the host. Like all users' adulteration of design ideas, one can see this as destructive or creative depending on one's perspective, and on how valuable one finds the idea which is now being lost.

The issue for a designer can be stated in a wide variety of ways; perhaps framing it as a social intention is one of the most interesting. Are you intending to remake the life of human beings or to bring out something more clearly which already exists in the lives around you? The answer won't necessarily be simple: Melnikov did the first via the second in comfortably revolutionary structures. Perhaps the two choices aren't that easy to separate, and perhaps both need to be thought out more explicitly whatever the project.