

URBAN DEVELOPMENT ON FLOATING PLATFORMS

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Israel of the 2030th will differ considerably from its present. The imminent massive demographic growth will require far reaching changes in its development approach and solutions of the urban settlements, as well as its approach toward the "marine" option along its coastline.

The rational behind the urban marine option is based on the growing scarcity of building land resources and on the resulting widening gap between real estate values in the coastal cities and the cost of urban development on sea.

The Urban marine option is concerned with generating the following main resources: land reclamation for urban development - protected water zone (lagoon) - marine city frontage and - additional water front coastline. It is a promise of enlarging the urban habitat with especially attractive high demand environment and that for all the range of urban functions of housing, commerce, tourism, culture and recreation.

Urban development on floating large-scale platforms suggests an option with very attractive development possibilities and opportunities, architecturally and economically. The floating platforms will be modular, on a scale of urban blocks or more, bound together into a urban continuous pattern, compactly or loosely arranged with inter-spaces to allow for navigable canals, blue boulevards and squares, with multi-level transportation and infrastructure systems solved to produce even relatively autonomous existence, with a very limited dependence on the land side city.

One of the characteristics of land-ward urban sprawl is in the fixation of the built mass, urban infrastructures included. On the urban block scale, physical development is possible by increase of area and height-volume expansion up to a point of colliding with some immediate physical environmental constraints. An alternative is by demolition and redevelopment, which is, of course, a very expensive procedure, socially and economically. On the city scale, development possibilities are even more constrained and more costly.

The development of the urban conglomerate may be sometimes successfully pre-determined and that, when the constraints and the processes pressing for change are predictable. In such a case, the urban mass will develop along ordered models and moulds, which maintain continuous equilibrium. As it turns out, mostly the urban processes are unpredictable to a great degree, and certainly not in the required certainty. In such an eventuality, the developments are unexpected, gradually coming into conflict with pre-conceptions and intentions of the original planning and, eventually, to a total or partial collapse of the preconceived existing order.

In such situations, the possibility to readjust and rehabilitate the proper and orderly urban functions requires a far-reaching reformation and reconstruction, the cost of which is sometimes beyond the economic capacity of the society in question. On the other hand, frequently, the alternative for reorganization is urban stagnation and deterioration. The marine environment and the concept of urban development on floating mega-platforms suggest an

alternative, which is in drastic opposition to the mainland urban reality. The floating platforms may lend themselves, due to their inherent mobility, to rearrangement and thus, to a transition into new modes of spatial-physical organization. It provides an opportunity to redesign the urban patterns and to generate a new urban reality, as far as the relative arrangement and positioning of the urban blocks and even infrastructures is concerned. All that is possible without disrupting considerably the urban life routine of the population. All which is required is disconnecting the anchorage system and the continuous infrastructures, in order to relocate them into their new spatial configuration and functional order.

We are not limiting our thought to rearrangement only, but also to expansion by adding new urban elements-platforms, as well as removing and scuttling obsolete or damaged ones.

This far-reaching mobility and adaptability and the resulting flexibility are a profound and unique characteristic of the floatable urban fabric and an absolute advantage over the land based static one.

The paper will try to emphasize and elaborate on the apparent advantages of the floatable urban development by referring to some on principle case studies.