Good examples are the Roman amphitheatre which has become the core of the city of Arles, and the Diocletian Palace located in Split in Yugoslavia. Diocletian's Palace was built with the typical layout of a Roman military camp, a rectangle surrounded by walls with bisecting axes intersecting at the centre and ending up at the gates (Williams, 1985). Transforming this kind of structure into a city was relatively easy since the form of the structure was similar to that of a city from the outset. Today, the Diocletian Palace still represents about half of Split's historic-city centre. After the fall of the Roman Empire, buildings of this scale ceased to be built in Western Europe, but the idea of the city contained in one structure never really went away. In the 16th century, for example, Pieter Bruegel painted the 'Tower of Babel' (Figure 7.1) (Brown, 1975). The significance of this painting was tremendous. It represented a miniature, a vertical city within a city's walls. Arguably, this powerful image highlights important aspects of city design that have some contemporary relevance.

Figure 7.1
Building of the Tower of Babel, by Pieter Bruegel the Elder. (*Source*: Visionary Architecture by C.W. Thomsen, Prestel-Verlag, Munich, 1994.)

The Metabolists in Japan were the first to acknowledge the potential of vast structures in addressing aspects of Asia's urbanism, and they were responsible for several megastructure proposals (Kikutake *et al.*, 1960). It is not surprising that projects were conceived in a place like Japan since land there is scarce. The proposals did much more than simply stack dense floor plans on top of each another in order to deal with both the scarcity of land and increasing population densities. The Metabolists believed that cities should be designed to grow and change, and only the underlying structure should be permanent. The other elements, which they called units of the city, should be attached to permanent structures like flowers and leaves are attached to the branch, and should be easily replaceable.

The idea of a permanent supporting structure with temporary interchanging units, which can be plugged in or removed also had a very significant influence on the work of the Archigram group. Where the designs of Metabolists presented themselves as projects to be built, Archigram's work never presented itself as buildable. On the contrary, the Archigram images were designed to shock, to pose questions, and to challenge assumptions of patterns of living (Crompton, 1994). This challenge was reflected in the name 'Archigram', an abbreviation of Architectural Telegram, suggesting that the publication carried an urgent message (Figure 7.2).

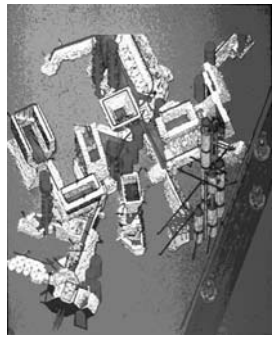

Figure 7.2
***Plug-in City* by Peter Cook, Archigram, 1963–1964. (*Source*: Banham R. (1976) *Megastructures of the Recent Past*, Icon Editions, Harper and Row Publishers, New York.)**

Habraken[1] built further on Archigram's ideas of permanent supporting structures with interchangeable units. In his book *Supports: An Alternative to Mass Housing* (Habraken, 1972) he defined a support structure as a:

> **. . . construction which allows the provision of dwellings which can be built, altered and taken down independently of each other. A support structure is quite a different matter from the skeleton construction of a large building. The skeleton is entirely tied to the single project of which it forms part. A support structure is built in knowledge that we cannot predict what is going to happen to it.**
>
> **Habraken, 1972**

Habraken identified that support structures were missing in temporary mass housing projects. His later work argues that a built environment is universally organized by form, place and understanding, three interwoven principles which roughly correspond to physical, biological, and social domains (Habraken, 2000). In many respects his highly influential work shows that ideas espoused by Archigram could be built (Habraken, 2001).

Isozaki's work was probably closer to the Archigram's ideas than to those of his Metabolist colleagues in Japan. His early project, 'City in the Air', designed in 1961, appears to have a basic tree-like structure, but actually looking more like a forest than a tree (Figure 7.3) (Isozaki, 1996). Isozaki continued to challenge the Metabolists' ideas through numerous projects and experimental exhibitions. More recently, Isozaki was commissioned to design

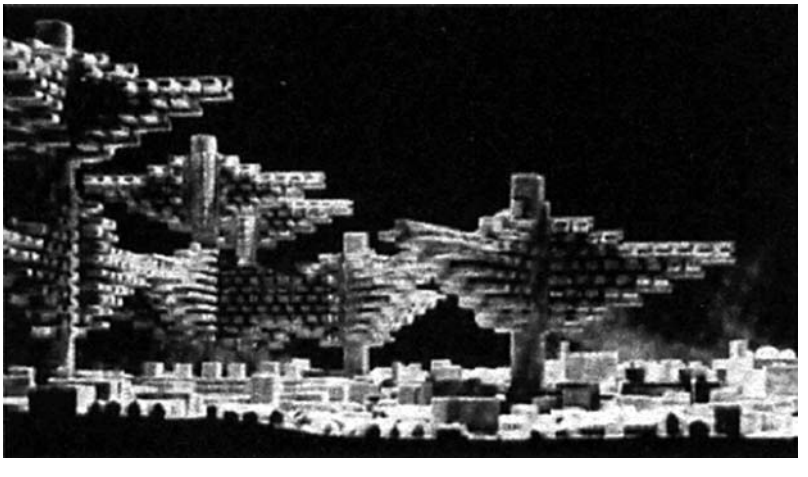

Figure 7.3
City in the Air, by Arata Isozaki, 1962. (*Source*: Thomsen C.W. (1994) Visionary Architecture, Prestel-Verlag, Munich.)