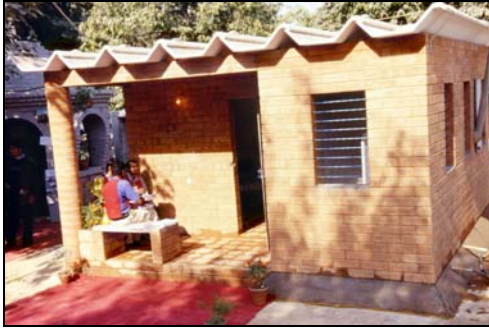


## AUM HOUSE

The initial idea was to create a disaster resistant and cost effective house, which could be pre-cast anywhere and transported by lorry to the place where the disaster occurred. The technical concept satisfied this requirement. The house was cost effective, even with the provision for disaster resistance, but the transportation cost was more than the house cost. Therefore, such a project is not economically viable.



The prototype of this 23m<sup>2</sup> AUM House, which is earthquake, cyclone and flood resistant, has been built during the India International Trade Fair 99 at New Delhi. The house was prefabricated at Auroville and transported in a single lorry. The house weighed around 22.5 tons and the lorry took 5 days to cover 2,900 Km between Auroville, Tamil Nadu, and New Delhi.

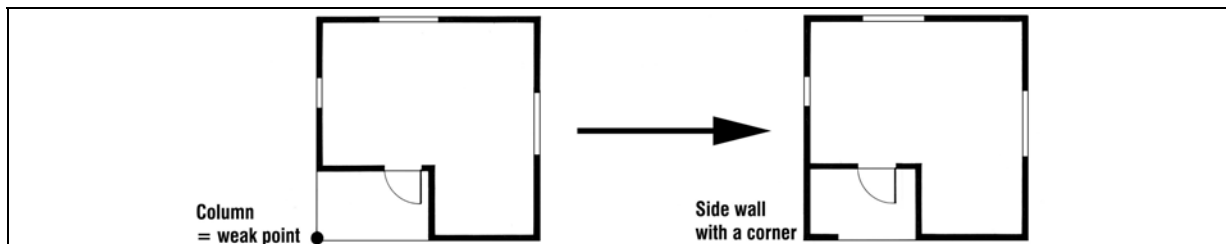
The packing of the house was done in such a way that only 8 blocks arrived broken out of 2,280 blocks. Ferrocement pieces had only little hair cracks. The superstructure of the prototype house has been assembled in 66 hours by the 18-man team of the former AVBC/Earth Unit. This AUM House prototype was sponsored by HUDCO. The *India Trade Promotion Organisation* awarded this house a Gold Medal for the excellence of its special demonstration.

- Another AUM house was built in 2000 in Orissa, on the occasion of a six-week training course, with a grant from HUDCO, for the rehabilitation of the zones affected by the cyclone of October 1999.
- In 2001, another AUM House was built in Gujarat in 62 hours by a 20-men team. It was the starting point of rehabilitation programmes for the zones affected by the earthquake of January 2001.
- Another AUM house was built in 2002 in Gujarat, at the occasion of a six-week training course, sponsored by HUDCO, for the rehabilitation of the zones affected by the earthquake of January 2001.

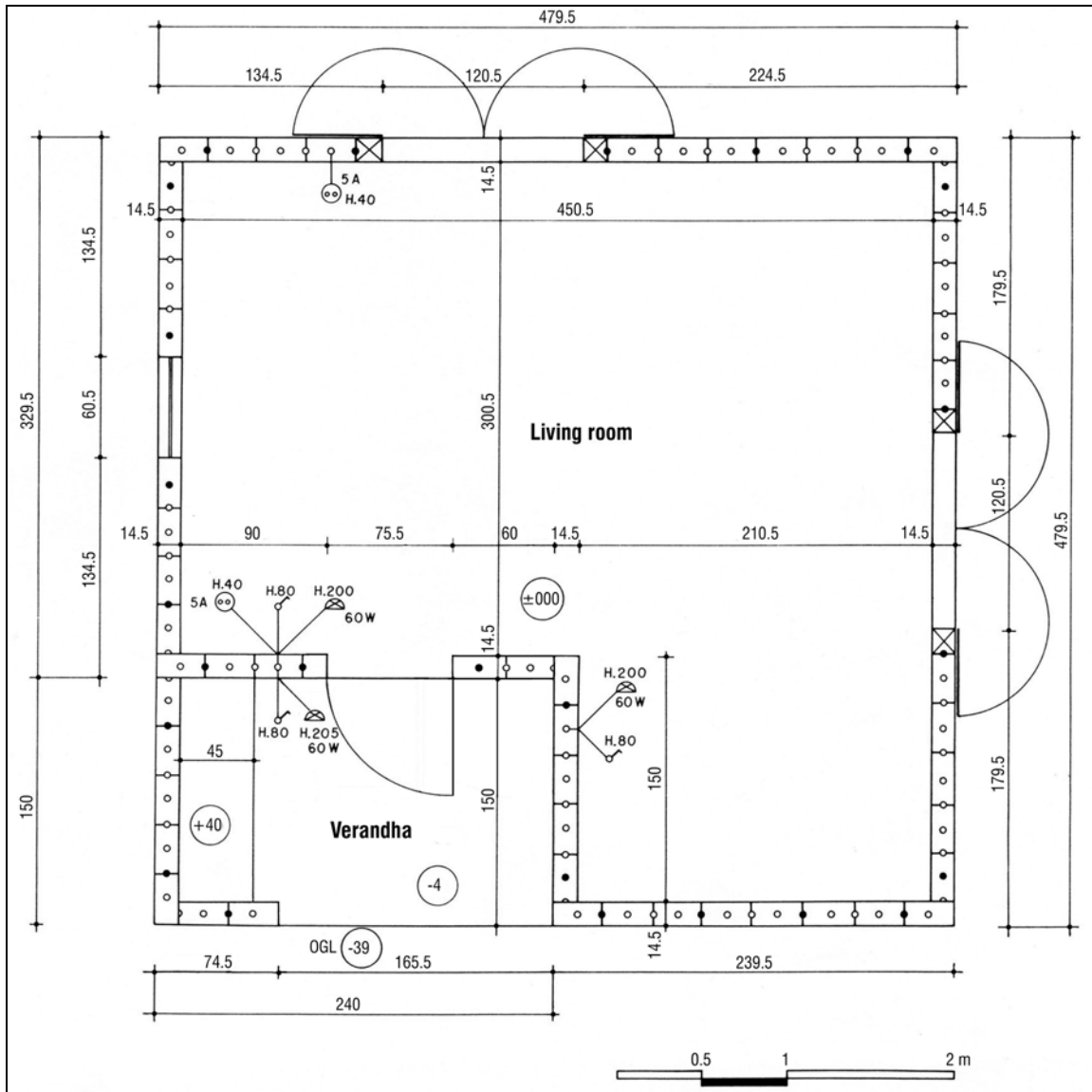
It was possible to transport this house over such long distances only for the sake of demonstrations. Thus, the packing was done in a very special way that cannot be replicable for normal cases. First the transportation cost is prohibitive and second the keys of the interlocking blocks must not be damaged. Therefore, it is not advisable to transport this house over long distances. On the contrary, these blocks could be transported from village to village, but still, with a certain care, as it has been done by the Catholic Relief Services in Gujarat.

Some developments have been made from what was done in Gujarat. Three major modifications should be noted for the improvement of the design and technology:

- Increase of the front wall length, so as to get a stronger shear wall.
- Replacement of the veranda's column by a sidewall with a corner.
- Modification of the block size and the binder: The blocks are now 295 mm long, and laid with cement sand mortar.



**Improved and reinforced Aum house**





1-loading-lorry



2-house-new-delhi



3-house-new-delhi



4-house-new-delhi



5-house-new-delhi



6-house-new-delhi



7-digging-foundation-6h



8-ram-foundation-11h



9-plinth-290-13h



10-plinth-148-14h



11-plinth-u-beam-16h



12-floor-filling-17h



13-sill-ringbeam-25h



14-villagers-visit-30h



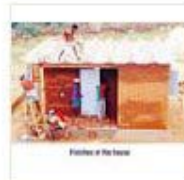
15-lintel-ringbeam-35h



16-roof-ringbeam-43h



17-channel-start 44h



18-channel-end-48h



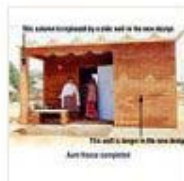
19-end-after-62h



20-villagers-visit



21-inside



22-detail-modifications