Recommendation on the subject of Heim M1 Prototype

It is extraordinary for a manufacturing company like Sekisui to be honored for its dwelling, Heim M1, by the committee of DOCOMOMO, when considering the other architectural masterpieces selected. In fact, the latter are monumental works corresponding to the various defined categories. Heim M1 is in fact one of the best examples of research conducted on the concept of practical industrialization of residential structures. I cordially congratulate the Sekisui firm and its researchers.

In 1972, on my second visit to Japan, during an excursion to the Tokyo suburbs I was able to notice through the window of a bus a structure unlike any I had ever seen. I could only take an out-of-focus photo of it, and in spite of my later efforts, it was impossible for me to find the site or to find out who the creator of this work was. The appearance of that building was somewhat different, but the concept was close to what I had been promoting in Europe.

Six years later I visited the site of the Building Center of Japan (BCJ) in Harumi, which has an exhibition of houses made by major Japanese companies in the industry. There I found a new type of what I discovered in 1972, but this time I made sure not only to take two good photo shots, but also to find out the name of the company that produced this prototype of the dwelling.

Over the course of my several visits to Japan, I had chances to visit some of the major plants that were making industrialized houses, among which there were prototypes manufactured that were the results of the "Housing 55" competition.

Of all these houses, only Heim M1, being close to my own research projects, attracted my attention. I never understood why the Sekisui Company stopped their research on this project. Their retreat continues to be a mystery to me because this prototype would be able to make the Sekisui Company a global leader of the industrialized house in the future.

Certainly it would be necessary to make further research efforts in order to make the process close to, if not the same as, that of automobile or aircraft production.

Specifically, it would be necessary to replace the very heavy metallic structure with shells of thinly formed sheet

metal in the first stage, and then with similar shells made of a new FRP material, reinforced by glass or carbon fibers, in the second stage.

It would be necessary to bring the concept of modular units close to the concept of the structures of automobiles or aircraft simply because, in earthquakes, these are the only things that are not destroyed, except when hit by other falling structures. This was proved in the Bam earthquake in Iran; the city was completely destroyed, but automobiles were running about in the middle of the ruins.

These shells should contain, on the inside, molded partitions of the type that composes aircraft cabin structures, furniture, heating and air conditioning devices, all kinds of electronic appliances, seats and so forth.

On the outside, functional elements could be added to the shell, such as balconies, terraces, sunshade eaves, as well as decorative elements such as flower pots, special lighting fixtures, awnings, relief panels and so forth.

I was hooked on the prototypes I saw in 1972 and 1978 because I felt that all of these elements could possibly be integrated into them.

This extraordinary award that Heim M1 has just received should cause a revival of research on this subject.

I think Sekisui should initiate research as a joint project with a large Japanese automaker, or even an aircraft company. These companies, in fact, have all of the technologies, all of the machines and all of the tools that would be needed to develop a new prototype. Their know-how of mold making, their skill in molding and forming, and the wiring and installation techniques would permit great time-saving.

I am convinced that the combination of knowledge and experience of the two industries would permit the rapid realization of a new Heim M1, on the basis of the precursor which I saw in 1972.

Just as the automobile industry succeeded in manufacturing a product that the masses could afford and use, Sekisui could place a house on the market that could be purchased by almost everybody, rich or poor.

Just as the case of the automobile, a very large selection of models, colors and equipment would allow everybody to find a house that fits their needs and budget.

If the demand is tremendous due to high population density, such as in India and China, the new Heim M1 could be integrated in multi-layered structures, of which an idea could be taken from a work which appeared in NEXT 21 in Osaka, in 1993. Such a structure would permit a great concentration of dwellings, yet respect the desire for

privacy, and at the same time would express the dynamism of cities by the freedom of house construction. In fact, the individual houses could be at any time, whatever the purpose may be, removed and integrated into another place in the structure, which would actually be a warehouse of dwellings.

Why is it that wealthy countries such as Europe and the U.S., who are capable of producing dwellings in an industrialized manner, are not interested in this global market? It is simply because the existing and successful prototypes such as the prototype of CRAU1) were ignored by the majority of the public, so there was never a demand.

A vicious circle has taken place; i.e. since there is no demand, the industry decided not to put such a product into production, and since the industry does not supply them, the demand does not arise.

Recently, new experiments have been tried in the method of modular units, which are generally used for field offices.

By this very practical approach, some companies have succeeded in providing buildings that are convincing because they can be seen and entered and, above all, are in practical use. If I may refer to a Japanese proverb; "It is worthier to see once than to be told one hundred times."

Delft University and Utrecht University in Holland have just completed construction of dwellings for their students by the modular-unit method. In a suburb of London, developers have made dwellings for students and artists, utilizing used ocean-freight containers. The students of the Dutch "Space-Boxes"2) and the habitants of the London containers3) are going to promote these new dwellings and will help to break the prevailing vicious circle.

I believe the time has come for an ambitious company to show interest in the global market of dwellings.

Heim M1 is neither modern nor modernist, but is simply a satisfactory answer to the fundamental human right to have adequate housing; there have always been many cases in which this right is not fulfilled.

Heim M1, awarded by the DOCOMOMO, is a master trump for Sekisui Chemical Co., Ltd.

Liege/Belgium, December 2004

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Curriculum Vitae

Jean ENGLEBERT

Born in Vielsalm (Belgium), on October 16th, 1928.

Civil Engineer and Architect (1955, University of Liège).

Engineer and town-planner (1958, University of Liège).

Scholarship of Technische Hochschule in Aachen 1958 and 1959

Full-time Professor at the Applied Sciences Faculty (University of Liège), Architectonic and Urbanistic Composition, 1966-1994

Emeritus professor 1994

Founder and director of the Research Centre for Architecture and Town-planning of the Liège University (CRAU), since 1967.

Co-ordinating architect at the Sart Tilman Campus of Liège University : 1985-1995.

Founder member in 1991 and President of CÉJUL (Centre for Japanese Studies at the Liège University).

Founder member in 1994 of CECLI (Centre for Chinese Studies at the Liege University).

Senator of the ″ Junior Chamber International″ nr. 10303.

Teaching at Cornell University, Firenze University and Nanjing University.

Lectures in Germany, Canada, France, Great Britain, Italy, Japan, Luxembourg, Netherlands, United States, Hungary, Roumania, Austria, Czechoslovakia, Poland.

Many architectural realizations , many of which received awards.

135 publications, many of which in English, German, Dutch, Italian and Japanese.

Decorated of ″ The Order of the Sacred Treasure, Gold Rays with Neck Ribbon,″ by His Majesty the Emperor of Japan the Twenty – ninth of the Fourth Month of the Seventh Year of Heisei (1995).

Appreciation Prize 1998 of the A.I.J. (Architectural Institute of Japan).

Special award by I.A.H.S. (International Association for Housing Science) for his contribution to the progress of building systems for housing (2003).