



# Research & Development Highlights

Technical Series  
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## Handbook of Prefabricated Home Construction Systems

### Introduction

Prefabricated components have been used in house and apartment construction for many years. Once these components have been delivered to the building site, however, they are often assembled in a relatively unsophisticated manner.

Construction could be made faster, simpler and less expensive if prefabricated components were designed and used as part of an overall construction system. A number of these systems are in use already, or will soon be available.

To better evaluate the potential for prefabricated home construction systems, Canada Mortgage and Housing Corporation (CMHC) developed a handbook describing the major types of systems available from around the world.

The handbook illustrates the variety of systems that exist, but should not be considered a complete list.

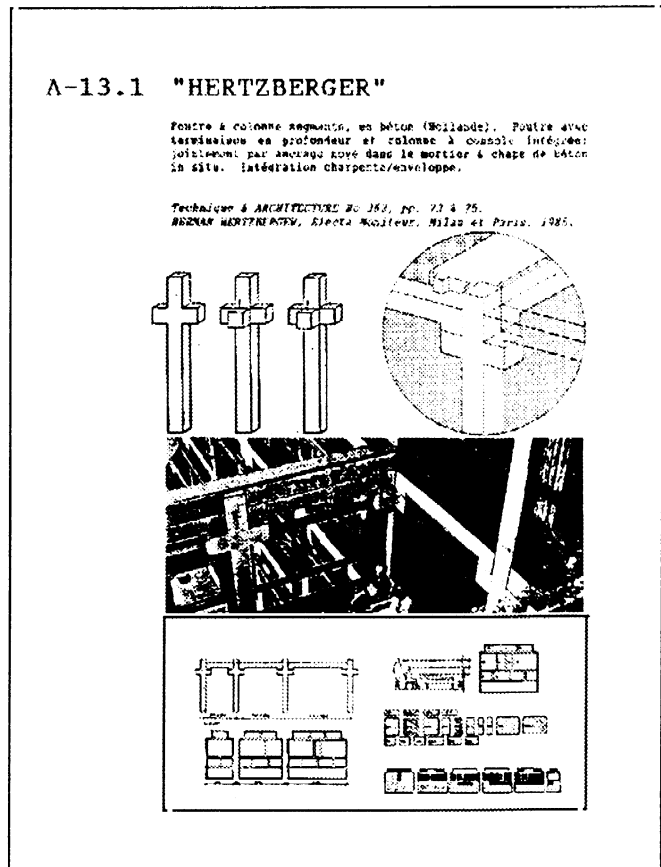
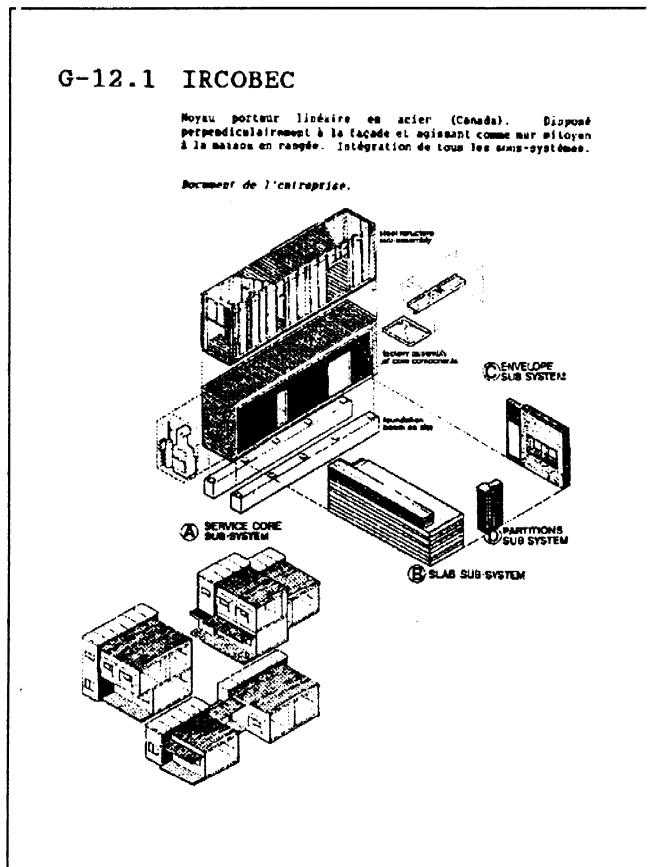
The nine types of systems identified fall into three main categories.

### I. Site-assembled systems

All components, including the frame, are manufactured at the factory and transported to the building site in pieces. All assembly takes place at the building site. There are four types of systems in this category: beam and pillar, slab and post, panel, and integrated joint systems.

### H. Factory-assembled systems

All building elements are manufactured, assembled and finished at the factory. Once on the building site, the building is installed on the foundation and hooked up to



utilities. There are two types of systems in this category: the sectional module and the "box."

### III. Hybrid systems

Hybrid systems combine aspects of both site-assembled and factory-assembled systems. Complex building components are manufactured at the factory, while components which are more costly to transport are built or assembled at the building site. There are three types of systems in this category: the framework, the megastructure and the mechanized building site.

The 70-page report illustrates 64 different types of building systems. A short explanation of each building system is provided. As well, the report identifies how to obtain more information on each system.

**Project Manager:** Jacques Rousseau

**Research Report:** *Répertoire des systèmes de construction industrialisés en habitation*

**Research Consultant:** Roger-Bruno Richard

*A full report on this research project is available from the Canadian Housing Information Centre at the address below.*

### **Housing Research at CMHC**

*Under Part IX of the National Housing Act, the Government of Canada provides funds to CMHC to conduct research into the social, economic and technical aspects of housing and related fields, and to undertake the publishing and distribution of the results of this research.*

*This factsheet is one of a series intended to inform you of the nature and scope of CMHC's technical research program.*

### **This Research and Development Highlights**

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