

International Institute for  
Bau-biologie® & Ecology

IBE 207.2

## IBE 207.2 Types of Construction



**BRINGING TOGETHER TECHNOLOGY AND DESIGN  
METHODS TO PROVIDE THE INFORMATION  
NEEDED TO CREATE HEALTHY HOMES AND  
WORKPLACES**



## Types of Construction – IBE 207.2

### Welcome

*Thank you for choosing IBE for your educational needs. Current environmental realities demand a new approach to ensuring that our homes, schools and office buildings support the health and wellness of all who dwell there. We strive to provide the latest information and cutting edge methodology on the vital, complex relationship between the natural and the built environments. May you find your educational experiences enlightening, and take this knowledge out into your community for the benefit of all. **Michael Conn**, Executive Director, Institute for Bau-Biologie & Ecology.*

### Course Navigation

You will find that it is very easy to navigate through this course.

- Progress through the lessons using intuitive navigation tools. When you study, make sure to be aware of and use all supporting materials, such as pdf files, video and audio clips, links to other websites or relevant articles or papers, as well as the online forum.
- The last lesson will give you the option of downloading an electronic version (PDF) of the course. Please be aware that this information is copyright protected.
- When finished, you will be ready for the test. These tests are "open book" and are designed to help you evaluate your understanding of the subject.
- When you have finished the entire Course Pack, a Certificate of Completion is available online.

By using the Forum feature, students can share information and solve problems. We would like to see truly interactive discussions take place.

Please be advised that links to third party information may not reflect or support the Building Biology viewpoint. However, it might be of some interest to see how other people, groups, institutions, etc. argue the same subject.

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## Preface

During the past century, many building materials were developed which:

- guaranteed speedy application without problems;
- met the present, but often unreasonable, standards and regulations in terms of thermal insulation, acoustics and moisture barriers; and
- have guaranteed the most profit because their manufacturers have utilized their production methods and capacities to their limits.

In most cases, the basis for new building materials is no longer natural, but is, rather, synthetic, which implies a certain antagonism toward life (see also Courses IBE 205.2 and 205.3).

At the same time, training in the field of building construction underwent a change. Carpenters and masons no longer learned the traditional craftsmanship of their trades, as factory-oriented prefabrication methods took over, and, at the same time, knowledge of traditional construction principles was lost.

Along the way, the building industry gained a number of professions, such as building experts, building pathologists, lawyers, and judges. These people were hired to investigate the various problems and defects, repair them, and condemn them according to the knowledge available at the time.

For people who need this knowledge, this volume provides examples of construction drawings based upon the old, traditional building methods, and recommends the proper use of “natural” building materials.

### Introduction

In this course we are presenting a few examples of houses that have been planned ~ built according to Bau-biologie principles. We would like to mention here that there is no such thing as a “standard Bau-Biologie house.”

Each such home will look different. Geographical parameters as well as requirements of the people who will live in the house, and some other specific requirements will form a special home. However, you might find some or all of the presented structural elements worthwhile using for your purposes.

The project presented in the addendum is designed for the southern hemisphere, so if you want to use some of these planning principles you have to translate them into northern hemisphere circumstances. IBE has added Reinhard Kanuka-Fuch’s house because it demonstrates beautifully the principles of BIO-HARMONIC ARCHITECTURE. We would like to thank Reinhard for giving us the opportunity to present his work.

## Lesson 1 – Building Construction

### Planning a Dwelling

In general house plans should anticipate the needs, reflect the personality, and allow for the development of the homeowner. In particular, they should reflect:

- the possibility of accommodating several generations of a family
- economy, varied use of space, and possibilities for expansion
- use of simple structures, with not too much variation in building materials (IBE 207 series)
- use of solar energy (plans for wintergartens, or greenhouses) (IBE 203.3)
- use of economical, alternative technologies for heating, cooling, water supply, sewage disposal, etc. (IBE 206 series)

Providing the homeowner the chance to do some of the planning and construction work himself is as important a factor as accommodating several generations under one roof, which would give the rather isolated, small family a chance to grow into an extended family with its numerous benefits, of which communication is only one.

The following principles of planning should be considered:

#### Communication

Contact between family members should be facilitated at all times. Communication with other extended families could be achieved by building according to community or neighborhood planning concepts. (See Figure 1)

#### Seclusion

To facilitate one's withdrawal into a separate unit when desired, it should be easy to close off; otherwise open connections between units.

#### Social Integration

The planning concept should provide certain "social service" facilities, such as bathrooms and doors wide enough to accommodate people in wheelchairs, which would allow handicapped people to remain independent; and telecommunication facilities between the units for the older and younger generations. A "social service" exchange of sorts would be that the older people could "keep an eye on the children."

#### Limiting Diversity in Building Materials

Limiting diversity in the building materials used will limit the potential sources for problems.

The following construction details provide one choice of construction. All the details are based on a house design that uses both hard building materials and wood in its structural elements. Consequently, this presentation shows solutions relating to this type of structure.

Figure 1. Multi-Generation living concept, Floor Plan A

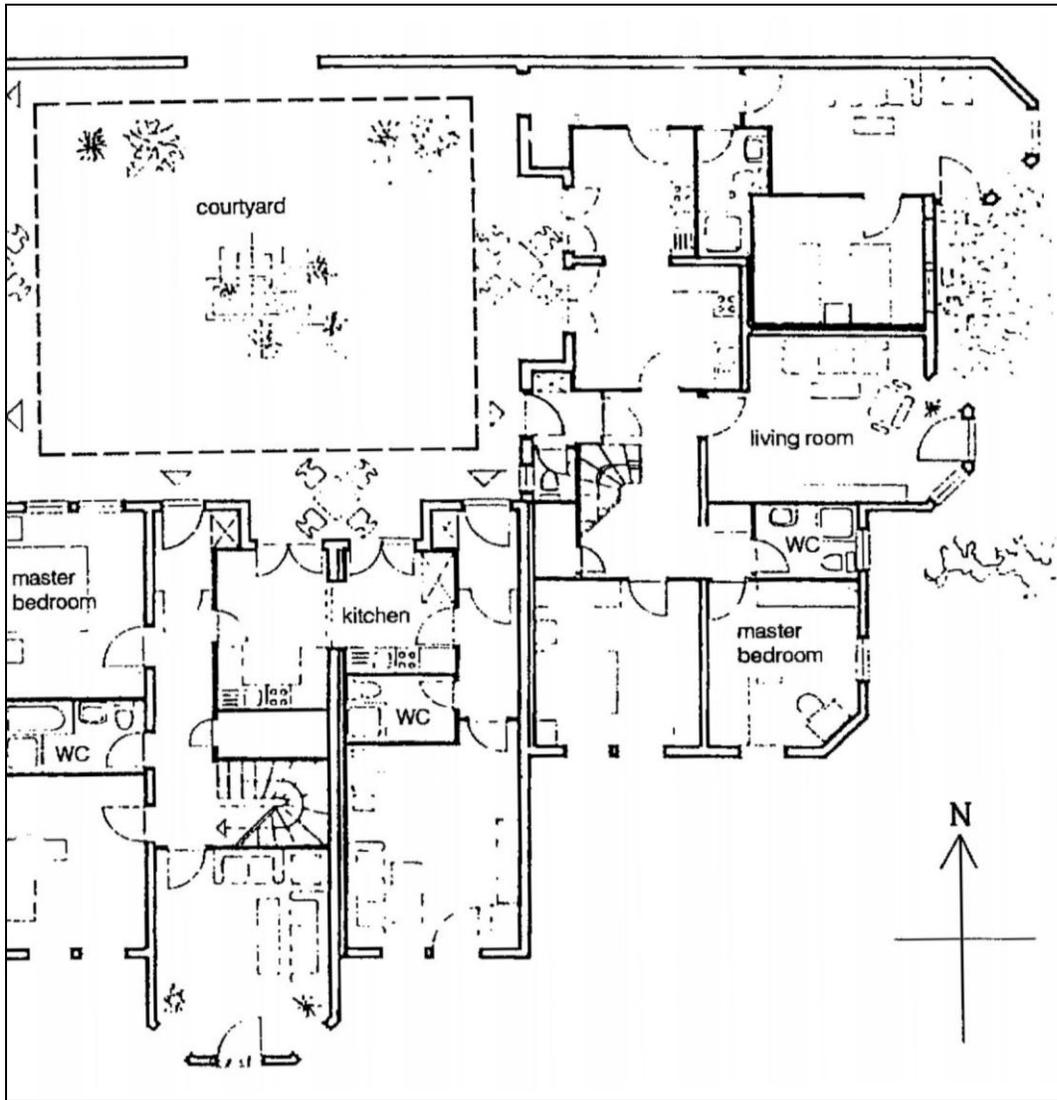


Figure 1a. Design plan for several generations

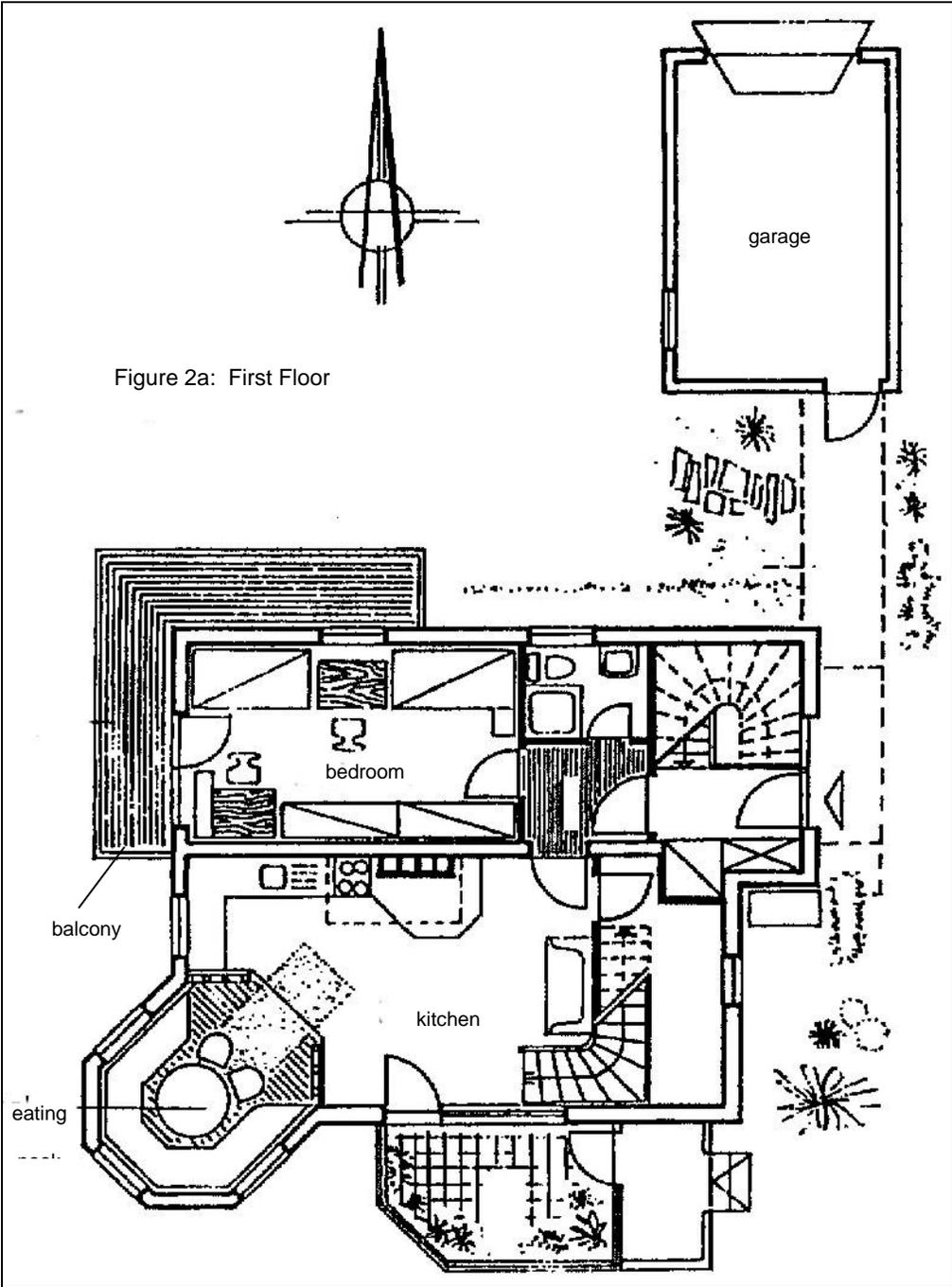


Figure 2a: First Floor