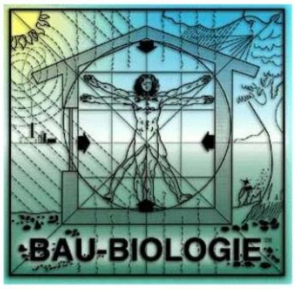
International Institute for Bau-biologie® & Ecology

IBE 201.4

IBE 201.4 Applied Bau-biologie

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



Applied Baubiologie – IBE 201.4

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.

Copyright

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Table of Contents

Planning a Dwelling 3
Communication 3
Seclusion 3
Social Integration 3
Limiting Diversity in Building Materials 3
Construction Details 7
Floor Slab And Foundation 8
Exterior Basement Wall and insulation 9
Ceiling/Floor Construction above Basement 10
Exterior Wall, first floor (ground floor) 13
Ceiling/Floor Construction above First Floor 17
Interior Walls 17
Ceiling/Roof Construction – Inhabited Loft Area 19
Energy Systems - the Sun 20
Passive Solar Systems 22
The Active Solar Energy System 26
Addendum – The Kanuka House 28
Buildings 29
Reading List 44
Glossary 45

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;
- use of solar energy (plans for wintergartens, or greenhouses);
- use of economical, alternative technologies for heating, cooling, water supply, sewage disposal, etc.

Providing the homeowner the chance to do some of the planning and construction work himself is as important a factors 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 to 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. However, all conform to the prevailing DIN[1] regulations in Germany in thermal and acoustical areas. In other countries, such regulations might require different solutions.

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.

[1] DIN: Deutsche Industrie Norm (German Industrial Standard)

Figure 1: Multi-Generational living concept, Floor Plan A

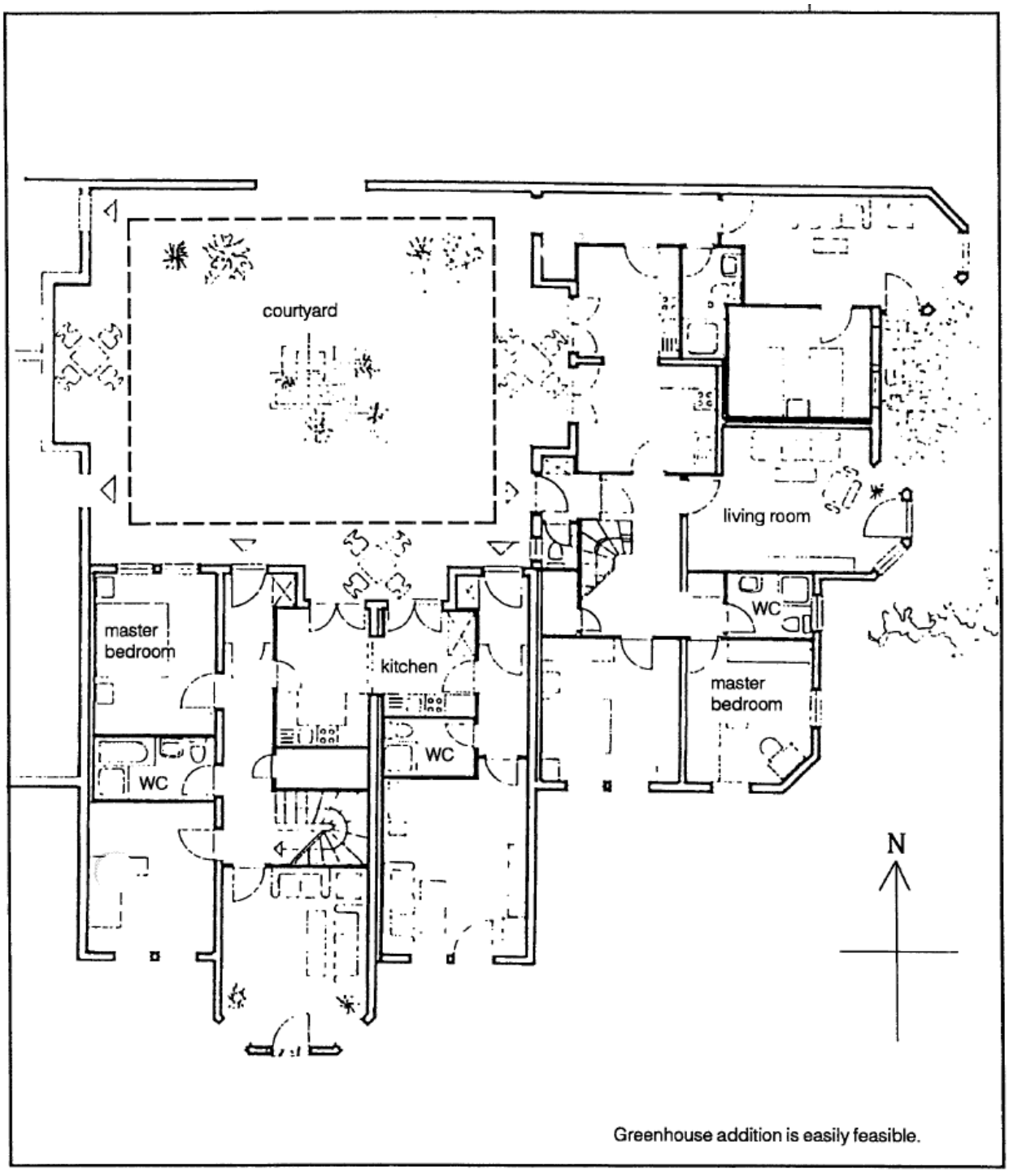
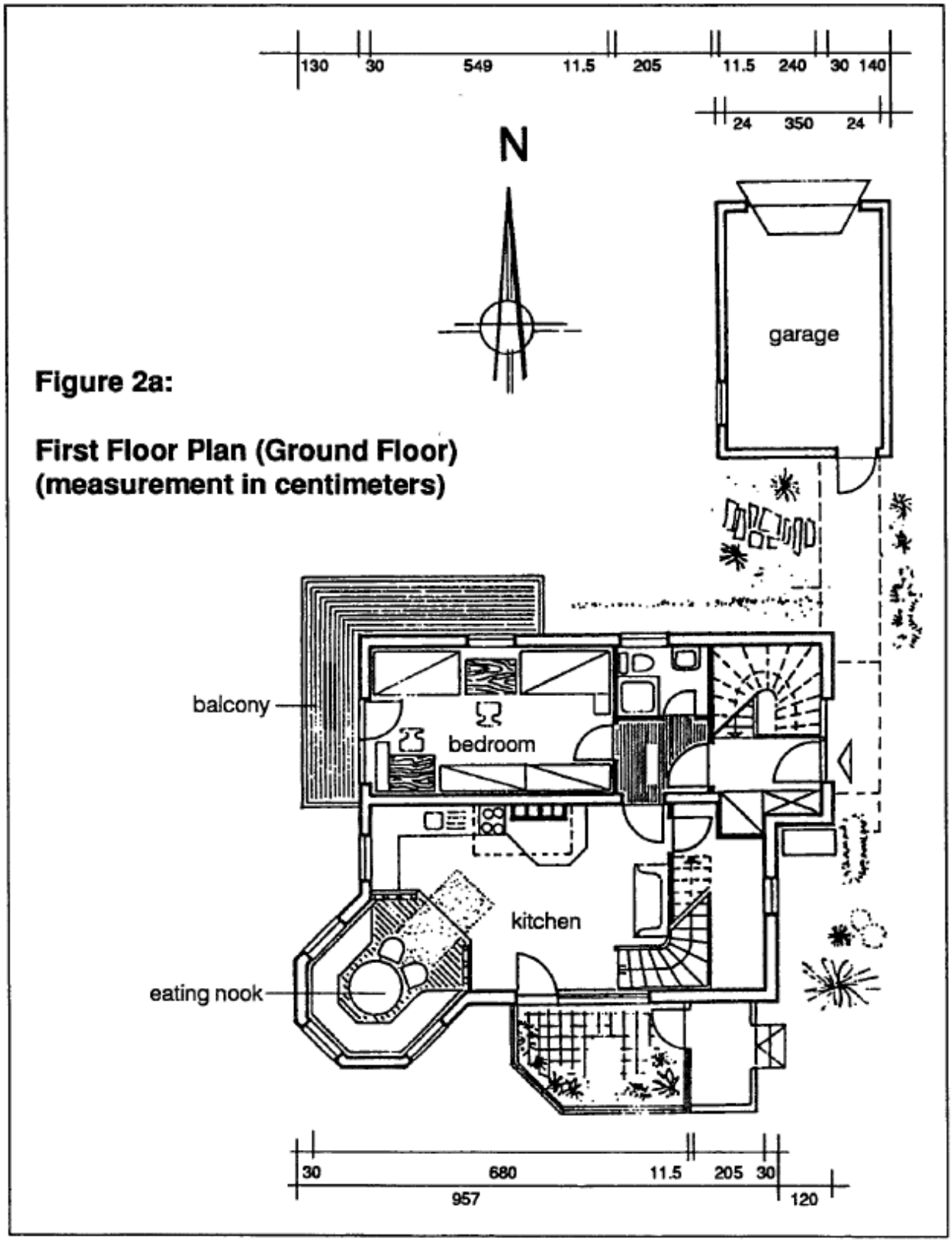


Figure 2: Design concept for a project which provides space for several generations within one extended family of children, parents and grandparents



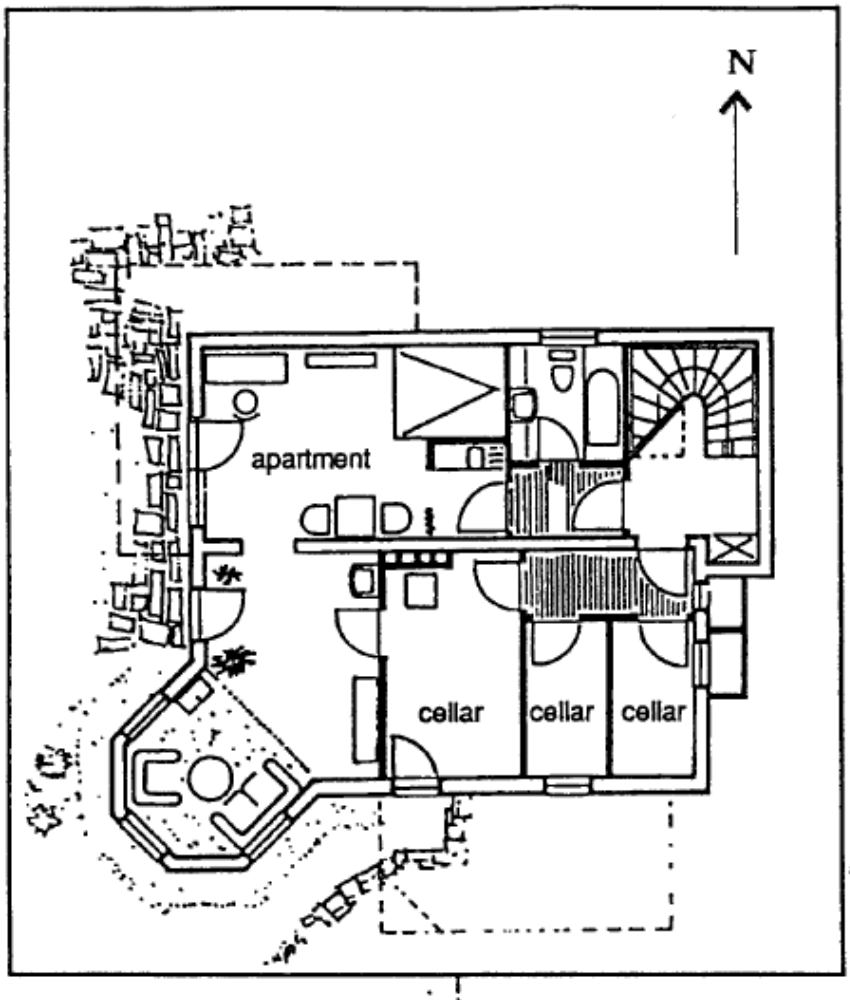


Figure 2b:

Basement Floor Plan

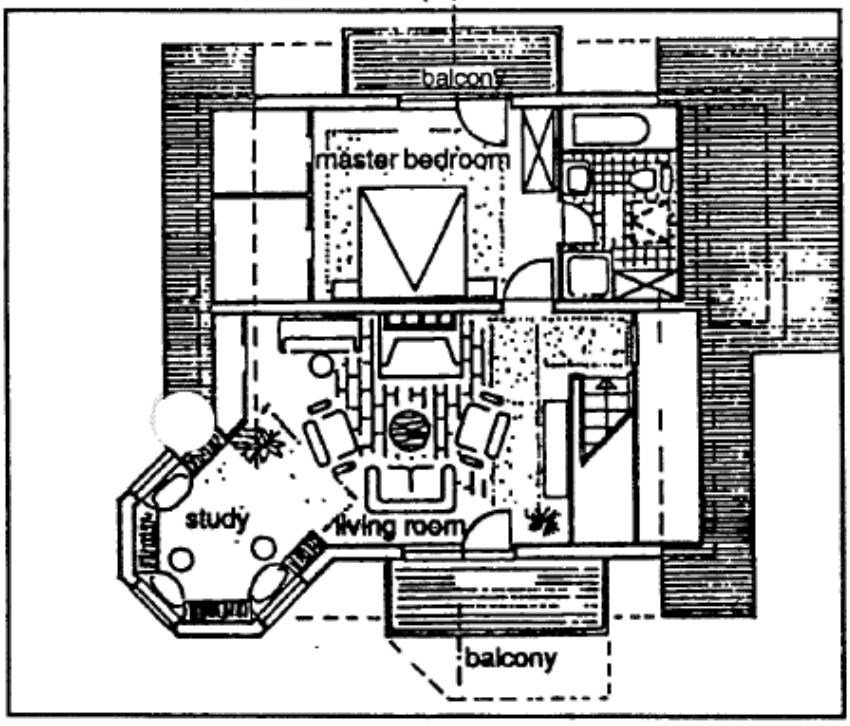


Figure 2c:

Loft Plan