FINLAND-HOME ARCHITECTURE

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  (Oulu Finland, Bergen Norway, Monpazier France)

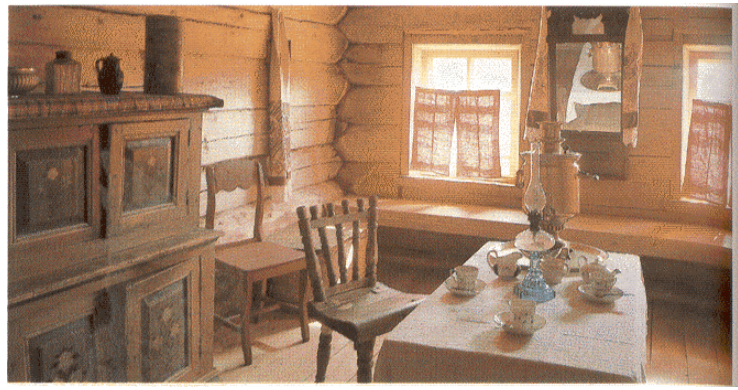
Research:

- Climate-conscious architecture

  - design and wind testing method for climates in change.
- Planning and architecture in Japanese climate.

Web-site: www.kuismanen.fi

TRADITIONAL WOODEN HOUSES



FINLAND-HOME CONCEPTS

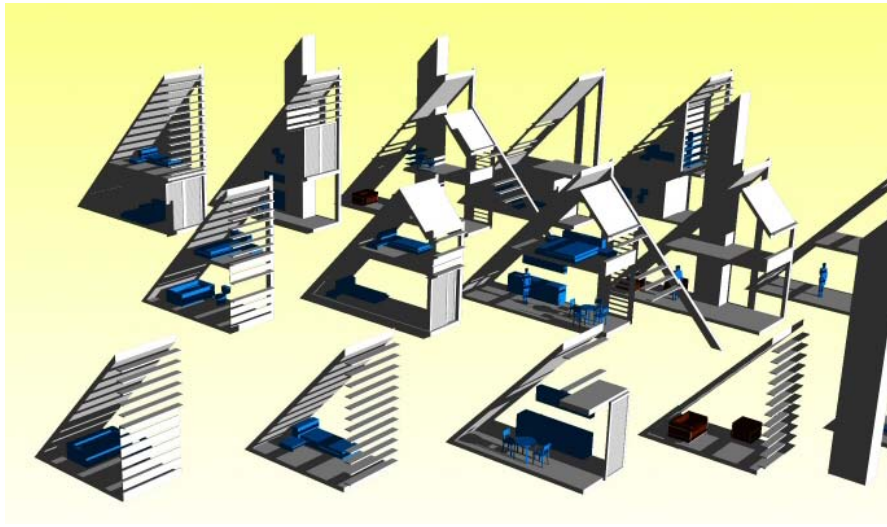
Wooden towns and different building types can be made with the Finland-home partners:

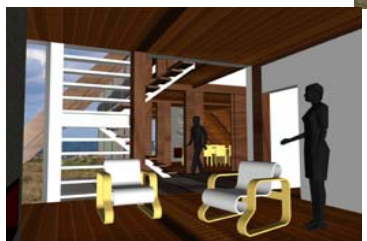
1. Wooden and log houses and multi-storey housing.
2. Senior housing and nursing homes with the Finnish safety- and wellness-technique.
3. Wooden office buildings.
4. Schools and kindergarten. Modern pedagogical equipment.
5. Safe coastal construction.

(CULTURE CENTRE, PYHÄ, LAPLAND. KUISMANEN 2012)

WOODEN ARCHITECTURE

- Modern wood is economical and long lasting.
- We have different wooden building systems.
- CO_2-neutral architecture is possible with our know-how.
- We can do high-tec and bioclimatic architecture in Japanese climate.
- Target is to construct wooden building areas and large buildings, like schools and senior housing, in Japan.



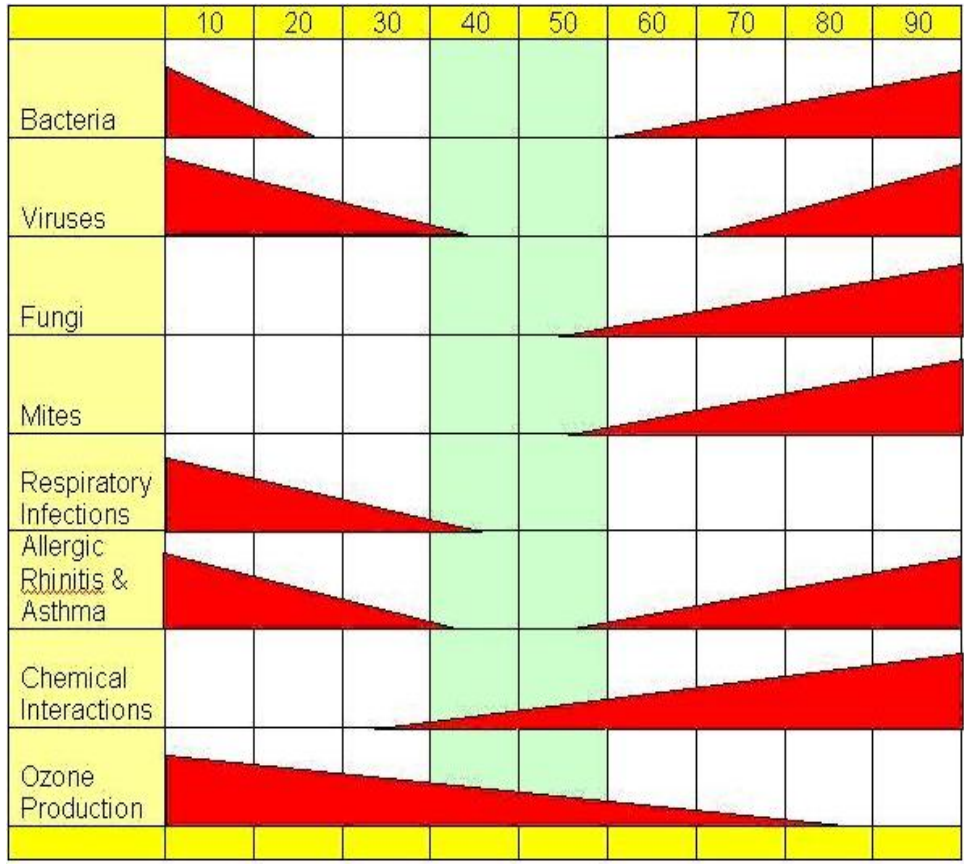


HEALTHINESS

Wooden houses are healthy:

- Wooden constructions help to keep the indoor air humidity inside the recommended area
- Wood, which is treated ecologically, doesn't give harmful emissions to indoor air
- Many European doctors recommend living in a log house.

HUMIDITY IN A WOODEN BUILDING IS GOOD AND INDOOR AIR HEALTHY.



FIRE SAFETY

Modern wooden buildings are fire-safe. There are different methods to improve fire resistance:

1 Protective paints and treatments.
2 Massive wooden posts and beams.
3 Plasterboard cover.
4 Sprinkling.

Eight storey wooden buildings are permitted in Finland.

FIRE-TESTS.

EARTHQUAKES

Wooden houses can be designed to stand earthquakes. Buildings have special steel parts to keep the parts together in the case of an earthquake.

Some of the standing buildings after the Kobe earthquake in Japan were the Finnish Kerto-wood buildings.

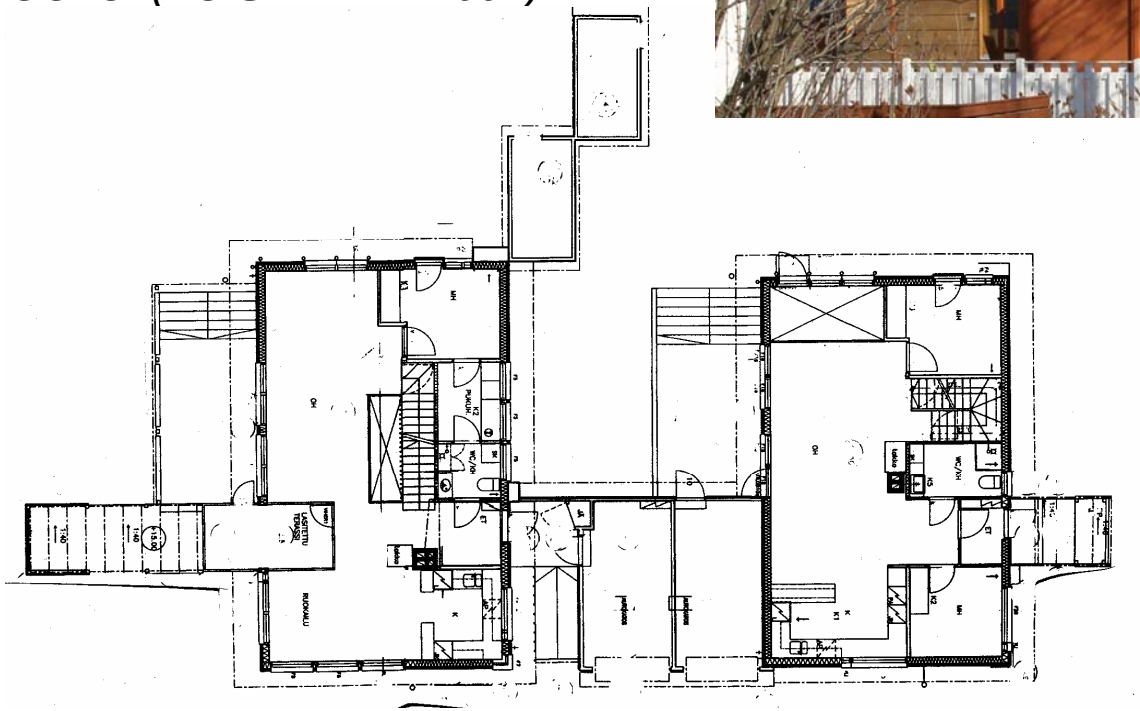
EARTHQUACE TESTS.

WOODEN HOUSES

Ecological wooden houses

- Industrial system.
- Ecological materials.

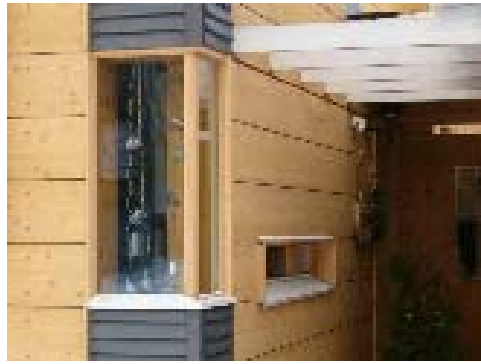
OULU. (KUISMANEN 2004)



WOODEN HOUSES

Healthy indoor air:

- House A has natural ventilation.
- House B has mechanical ventilation with heat recovery.



WOODEN HOUSES

MULTI-STOREY BUILDING

Large framed or massive-wood elements:

- Cost effective.
- Suited for housing.

(METSÄWOOD, KERTO-WOOD SYSTEM)

MULTI-STOREY BUILDING

- Eight stories high buildings are allowed in Finland.
- First projects are built in 2012-13.

ABOVE: POST-BEAM AND BEARING OUTER WALL CONSTRUCTION (KOSKINEN, REPONEN)

BELOW: LARGE ELEMENTS USING CLT-PLATES (STORA-ENSO)

SENIOR HOUSING

- Wood is safe and agreeable material for senior-housing
- Wood is warm to touch, and it evokes positive memories.
- New wooden constructions have a long life-cycle.

(KUISMANEN 2010)

SENIOR HOUSING

Senior-housing types:

1. Own homes with services.
2. Senior homes.
3. Nursing homes.

Natural house-techniques:

- Natural cold water cooling.
- Reed-bed cleaning of waste waters.
- During hot days massive wooden structures feel cooler.

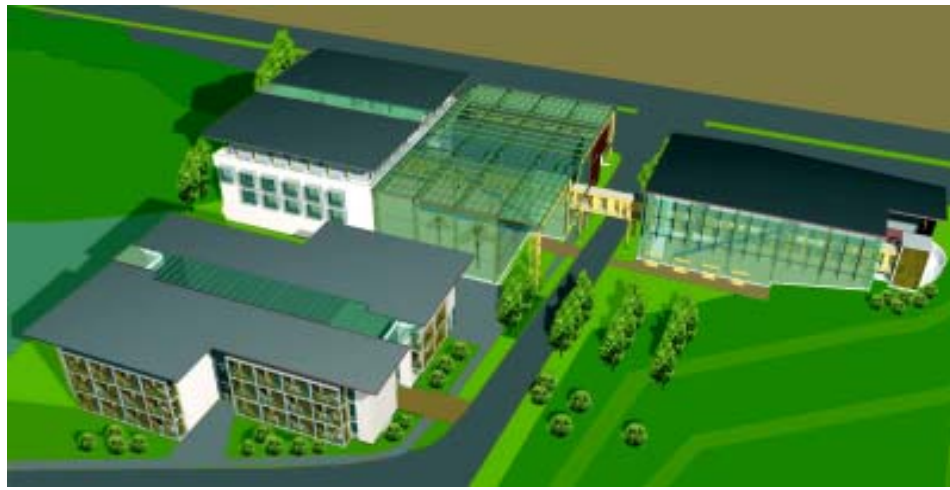
(KUISMANEN 2010)

WOODEN INTERIORS

FWBC SENDAI, JAPAN

Ecological low-energy building.

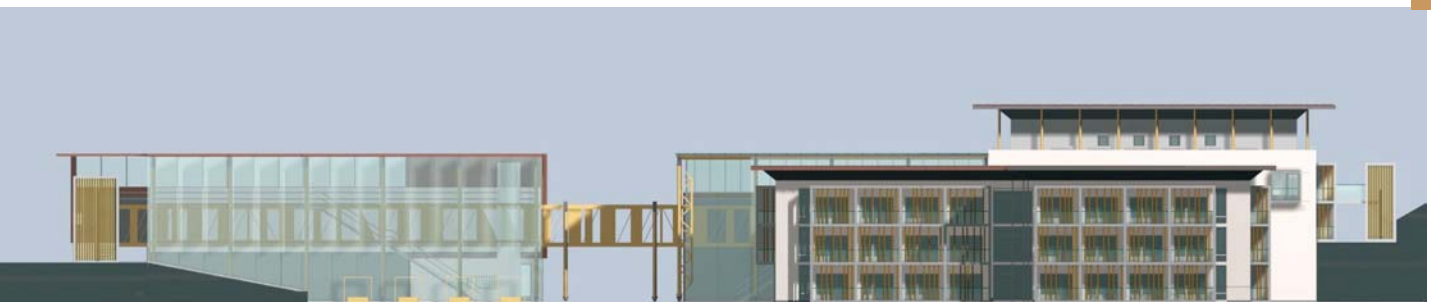
- Offices, nursing home, services.
- Kerto-wood and bamboo structures, partly concrete.

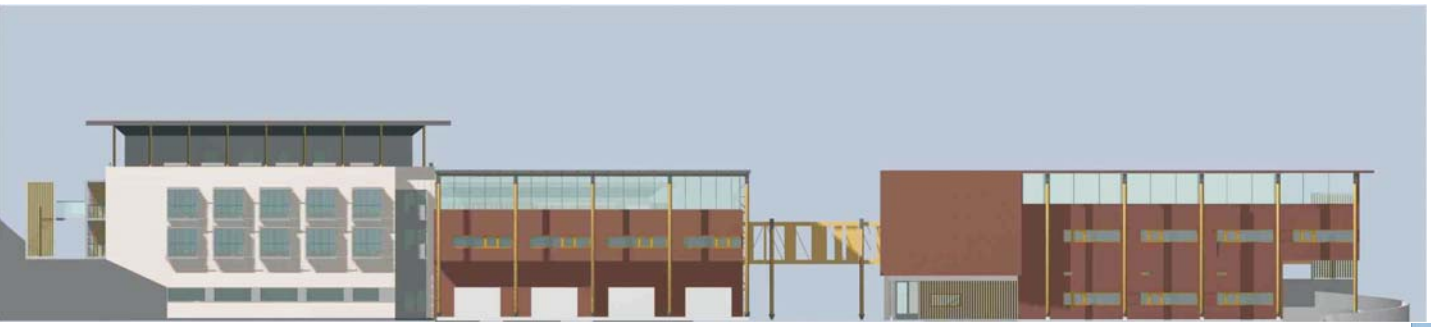


COMPETITION ENTRY
(KUISMANEN 2005)

FWBC SENDAI

- Natural ventilation and natural cooling.
- Solar heating.





OFFICES

Large office buildings can be made with Finnish wooden building systems.

(TASA ARCHITECTS)
(PIANO ARCHITECTS)

OFFICES

- Post-beam structures.
- Glue-lam beams.
- Wooden facade elements.

(SARK ARCHITECTS 2010)

SCHOOL BUILDING

Suomi-koti group can design effective schools and build them:

- Good results of Finnish schools in the international PISA-survey are result of new pedagogy and good school architecture. We have partners who know modern pedagogy.
- Wood makes a harmonious milieu for children.
- With wood it is possible to build flexible schools and kindergarten rapidly.

(KUISMANEN 2008)

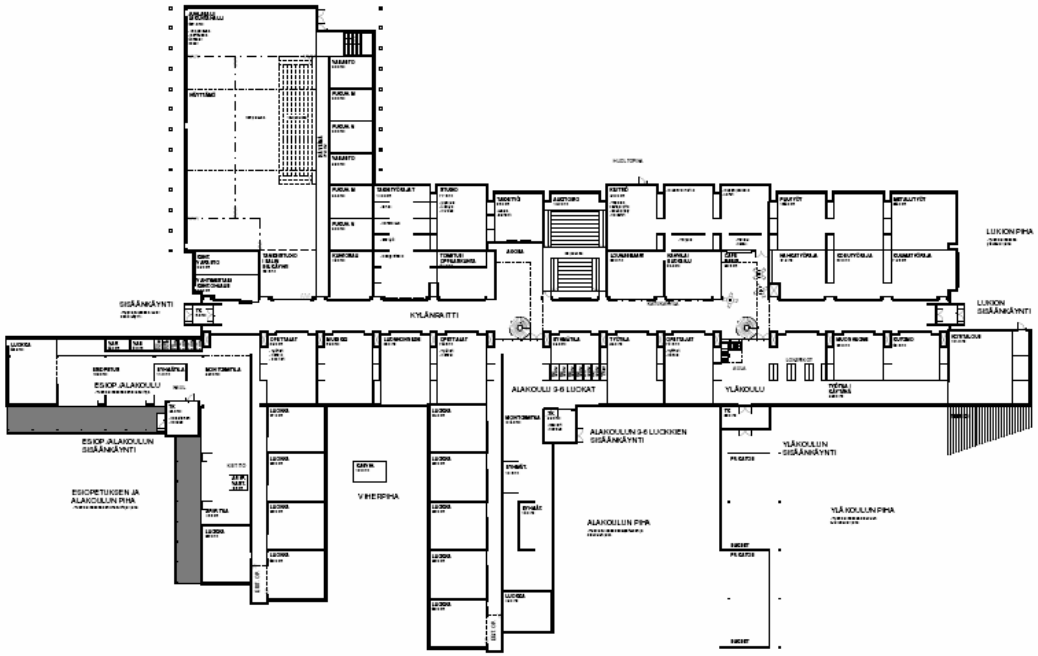
SCHOOL BUILDING

- Healthy buildings and in-door air are essential for children.
- Solar shading with wood-glass louvres.
- Mechanical or natural ventilation.

SCHOOL BUILDING

Even large schools can be made of wood.

- Log walls.
- Glue-lam post and beam structure.
- Pudasjärvi school has 2-stories and 10,000 m².



(KUISMANEN, 2012-)

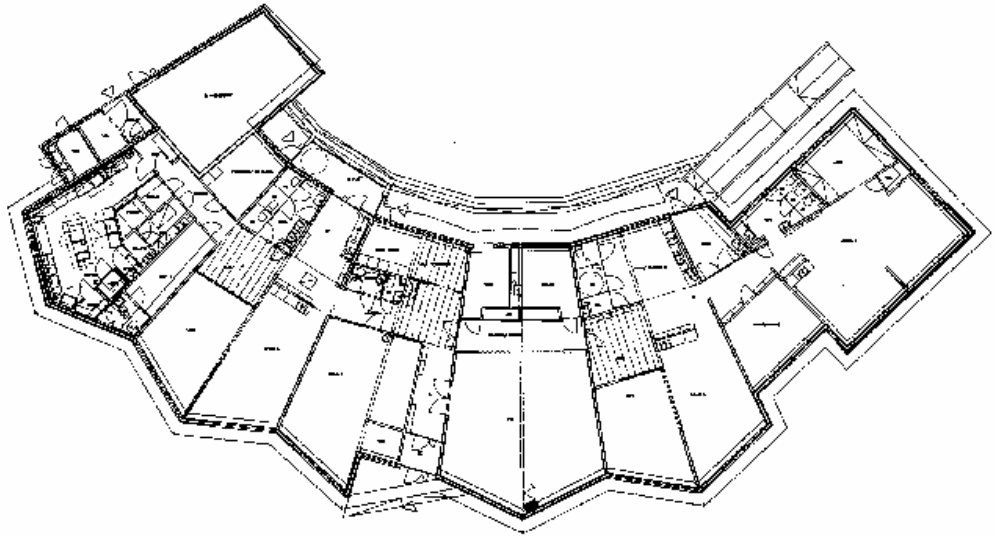
SCHOOL BUILDING

Finland-home group can deliver user-ready schools and kindergarten.

- Space-elements can be shipped direct to Japan.
- Finnish professional team can construct the buildings.
- Turn-key delivery.

TURN-KEY KINDERGARTEN

Architectural kindergarten
built with space-modules.



FINLAND-HOME PARTNERS

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- Koillisen Mittarakenne Oy
- Kuusamon Taloelementti Oy
- Lauta Oy
- MPH- Rakennus Oy
- Ikihirsi Oy
- Profin Oy
- PS – Kaluste Päivärinta Ky
- Uulatuote Oy
- Jeld-Wen Oy

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