

TITLE

A collaborative educational program involving the re-use of timbers from the old farm houses damaged by the earthquakes in Niigata

ABSTRACT

In this educational program, students, inhabitants and professionals worked together discussing the planning and design for wooden arcades, called locally Gangi, and actually built them together as a part of various town planning schemes. The Chuetsu area of Niigata JAPAN was struck by strong Earthquakes in 2004 and 2007. After the earthquakes, many damaged houses were demolished and a lot of materials like timbers were discarded. We kept a number of old timbers of damaged houses for re-use in the new wooden arcades. We tried to sustain the memory of the old buildings and to prevent these materials from being thrown away.

Students measured the old timbers and made up a list of them as materials in the design of the Gangi. We requested that the students re-use the old timbers in their design. At the design presentation stage, we were able to find various ways of reusing the old timbers. One team created a design using the old timbers for the main structures like posts and beams. The other team used them as non-stressed timbers or for decorative use. The inhabitants evaluated the teams proposing the positive timber usage. We successfully built two new Gangi and 24 ornamental features re-using the old timbers.

There were some practical problems in using the old timbers. They contained many nails and metals, and most of them were partially decayed. Moreover, we could not cut them into adequate sizes easily. Additionally the constructor misunderstood this idea and proposed to use only new materials instead of the old ones. In this educational program, we thought it was necessary to keep to the traditional landscape using natural materials with their essential qualities and shapes. A good way to solve these practical problems, was the collaboration with local professionals, and the sharing of ways of thinking with inhabitants, professionals, and students at every opportunity by discussion.

Our educational program is has not been temporary but has been made up of various ongoing activities. This program has lasted for twelve years and we have successfully kept a good relationship going among the students, inhabitants and professionals involved.