

iCon

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Research in Japan #1

# japanese traditional architecture

## a personal view

My first visit to Japan happened in August 2000, when I attended a three week summer workshop taking place in Saga city in Saga prefecture on the island of Kyushu, jointly organised by the Bauhaus University Weimar, Germany and Waseda University Tokyo, Japan. Naturally I was stunned and overwhelmed by a culture and its visual urban expressions I was not used too. During this time I had the chance of staying in a *ryokan*, a traditional Japanese hotel for one night. What I still recall as a major impact in my appreciation of an unknown spatial experience was a narrow space in room width, set between the main *tatami* room and the fully glazed outer facade, but separated from the room by the typical *shoji*, sliding doors. It was a symbolic version of the traditional *engawa*, that mediates between inside and outside while belonging to both spaces. In the *ryokan* it gave me the feeling of sitting “within“ the buildings envelope. I felt not as being inside anymore as I had separated myself from the room by sliding doors, but much more aware of the happenings outside. This reminded me very much of the feeling I had when sitting in the oriel window at home in Germany in the early 20<sup>th</sup> century Jugendstil building I was living in during that time.

As I realised much later, this transient space is very essential in

Japanese architecture. The feeling and meaning extends even further. Traditional buildings are seen as embedded in and derived from nature. It is not only the use of materials like wood, nor the untreated insertion of a naturally and arbitrary grown trunk that symbolically connects the house with its surrounding. It is not the juxtaposition of building and landscape, but essentially the ease and variety in which the user can alter his position towards environmental conditions.

As almost every kind of vernacular, pre-modern architecture, the interaction of building and environmental conditions has strongly shaped the building form, a centuries lasting optimisation process to make the best use of prevalent natural resources of building materials and weather conditions. As in many summer hot and humid climates a shaded but cross ventilation enabling shelter made from abundantly available and fast growing wood that results in light-weight structures with low thermal mass is an often seen result. The necessity to keep the main structure dry to prevent rapid decay has resulted in deep overhanging eaves and a resulting intermediary space, that is the *engawa*. The set-back of the main spaces prevents rain from entering and the open *engawa* allows for

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quick dry up. Even though it can be seen as a product out of structural necessity, the *engawa* has many other good effects.

As I have mentioned earlier, traditional houses in Japan are made for a summer hot and humid climate. As perfectly as they prevent direct sun from heating the inner space but permit desirable cross ventilation for cooling, the same can not be said during generally cold winters. There is hardly any significant temperature difference between inside and outside during harsh winters. Even in forest rich areas, firewood was merely used for cooking but hardly for heating. The ease in which draught cools the room and lack of thermal mass renders even central fireplaces useless beyond the immediate range of their heat radiating flames and after the fuel has been fully burned. But here again, the *engawa* plays an important role. Even though the deep hanging eaves efficiently block the summer sun, they nevertheless allow the much lower winter sun to heat the *engawa*. I can say from personal experience that it is a much nicer and warmer feeling to sit on a mild winter day outside on the planks of this intermediary space, warmed by the winter sun, than to sit in the draughty interior space heated by a modern oil stove. If the *engawa* was built on all sides, the people can shift their daily routines according to the sun.

This deliberate and conscious interaction with prevalent and mostly favourable environmental conditions is what I like in traditional Japanese architecture.

