

A Culture of Wood

By Tsuneo Yatagai

Wood and paper are the building materials of the traditional Japanese house. Wooden houses were the norm right up through World War II, even in Tokyo, the world's largest city at the time. The typical Tokyo home was a single-story or two-story structure of wooden posts and beams, paper sliding doors and straw mat *tatami* flooring. Tightly packed together in the crowded city, these structures proved ideal tinder for the concentrated fire bombing by the Americans near the end of the war. The city was just about flattened by the bombing, some 800,000 homes being burned to the ground.

Building materials have changed radically since then, and old wooden structures are rapidly giving way to towering steel skyscrapers. Wood nevertheless continues to have a special appeal for the Japanese, as it has throughout the centuries. For example, wood has always been and is still the preferred building material for Japan's Buddhist temples and Shinto shrines. The world's oldest wooden structure is the early 8th-century Horyuji Temple in Nara. The thickest columns are tree trunks already 400 years old when they were first used, which means they are now 1,600 years old.

Tradition of care

The Ise Shrine provides an interesting contrast. Its history is even more ancient than Horyuji's and its most sacred structures are also of wood. The difference is that Ise Shrine is rebuilt once every 20 years in a totally consistent design—a tradition that has been faithfully kept since the shrine was first built in the 7th century. Horyuji Temple and Ise Shrine are examples not only of Japan's most ancient architectural styles, but also represent a centuries-old tradition of careful repair and maintenance.

In contrast to Western cultures which tend to use hard broadleaved woods for

buildings and furniture, the Japanese have traditionally preferred fine-grained, white coniferous wood for everything including sculpture. Another reason for the choice is that coniferous wood is more durable than broadleaf wood. *Hinoki* cypress, for example, remains relatively unchanged for centuries. Venerable Horyuji's most ancient structures are built of *hinoki*. The Japanese, who value touch and smell as much as if not more than sight and sound, have a special love for the feel and fragrance of *hinoki*.

Wood was one of the few natural resources Japan always had in plentiful supply, but the rapid pace of economic growth after World War II made it necessary to import wood from abroad. Much of the wood used in Japan today is imported from North America and Southeast Asia. Some even comes from the Soviet Union. The domestic lumber supply in 1989 represented only 26.9% of the total amount of lumber used in Japan. Wood and wood products, such as paper, are heavily dependent on imports even with dedicated recycling.

Given these circumstances, it can be hard to accept that Japan has some of the world's most heavily forested land, at 67.9% of the total land area, roughly equivalent to Finland and ranking around fifth or sixth in the whole world. Japan has very little arable land, most of it being taken up by mountainous terrain. A temperate climate of plentiful rain and sunshine has further contributed to the large amounts of forest. Yet imported wood is so much cheaper today that much of the domestic forestland remains untouched.

Reforestation has been regularly practiced by the Japanese lumber industry for ages past, another reason why trees continue to be plentiful in this country of wooden architecture, furniture and utensils. The tradition of planting trees can be traced back to the murky legends of earliest Japanese history.

A certain god was expelled from Takamagahara, land of the Japanese gods, for

causing a rebellion. He first went to Korea, but not liking it there moved over to Izumo in Japan as an expert at iron-making. At Izumo, the legend goes, he pulled out his body hairs and planted them, creating a wide variety of trees. The descendants of this god took the seeds of these trees and replanted them, generation after generation. Reforestation ensured that the supply would always remain plentiful.

The demise of the world's forests

Great expanses of the globe were covered with forestland until the advent of homo sapiens. Humans have always been the forests' primary enemy. Climatic changes have, of course, played their part, but human folly—mindless lumbering—is as much to blame for the worldwide trend toward desertification evident today.

In the Middle East, where trees were cut to make pastureland for sheep, much of the land is barren, unable anymore to support any kind of vegetation, much less trees. The ancient culture of the Indus Valley in northwestern India and part of Pakistan was so advanced it even had sewerage systems, yet in switching over from adobe to baked bricks, it very soon destroyed all the trees in the area. China, land of the Great Wall, is similarly full of bare expanses, the sad result of centuries of dependence on charcoal for the baking of bricks.



The Great Buddha Hall of Todaiji Temple in Nara, the largest wooden building in the world. It was extensively renovated from 1974 to 1980.



Photo: Zenin

Aerial view of Meiji Shrine, which although located in the middle of Tokyo has a remarkable man-made forest.

In Japan, as I have already noted, wood was always the favored building medium. In the early centuries of Japanese imperial rule, a new capital was built every time a new emperor ascended to the throne. Sometimes, for a variety of reasons, the capital was moved several times during a single reign. The first of these wooden capitals was built in Asuka, in what is now southern Nara City sometime in the 6th century. The constant moving of the capital and frequent fires entailed the construction of not only new administrative and palace structures but also the building of new homes for the nobility.

Large amounts of wood were also used in the construction of Buddhist temples, many of them vast compounds containing a number of large structures. A good example is Todaiji in Nara, which is said to have the largest single wooden structure in the world, the building which houses the famous image of the Great Buddha. The Great Buddha Hall (the present structure is the one built to replace predecessors destroyed by fire) was originally 47 meters high. Before it stood a pair of seven-storied wooden pagodas, around 96 meters high.

All the *hinoki* on a nearby mountain were cut to supply the wood for these

structures, completely denuding the mountain, which later led to serious erosion and flooding of the area. The bronze image of the Great Buddha was another cause for nearby deforestation, for a considerable amount of charcoal was needed to fuel the forges where the mammoth statue—the first Great Buddha is said to have been 15 meters high—was cast. No serious attempt to reforest the barren mountains was made until around 1700. Centuries after the original destruction, the forests of the area have not yet regained their full strength.

Sacred groves

A peculiar but little-noticed landmark in most of Japan's cities is the occasional clump of trees in the midst of an endless sea of buildings. These are the guardian forests, sacred ground dedicated to local deities so ancient that no one knows their origins. Within every clump there is a shrine. In olden days, such clusters of trees were deemed so sacred that no shrine made by humans was necessary. In fact, one of the Japanese terms for shrine was *mori*, a homonym for *mori* meaning forest.

To the traditional Japanese eye, forests had a natural majesty equal to or even

grander than the great cathedrals or monuments of Europe. The Meiji Shrine, built in 1920 in memory of Emperor Meiji, has a remarkable man-made forest covering roughly 60% of the tract of 72 hectares right in the middle of bustling Tokyo. As of 1973, the forest was planted with 170,000 trees representing 302 varieties, which can be traced back to the trees donated to the project from all over the country.

Ironically, it was during Emperor Meiji's reign that a plan was proposed to bring the nation's shrines under the government's administration. A vocal opponent of the plan was Kumagusu Minakata (1867-1941), a biologist, ethnologist and folklorist who had spent 15 years in Europe and the United States, and who was a regular contributor to the British journal *Nature*. He argued that government administration would lead to the closing down of many shrines. Sacred groves would be cut down, meaning the loss of many ancient and unusual varieties of trees as well as wildlife. It took more than a decade, but eventually the plan was abandoned.

Who has not felt the wonder and awe of the sudden clearing in the midst of a deep forest, bright with dazzling sunlight. Martin Heidegger (1889-1976), a German philosopher with a great interest in East Asian thought, talked of the meaning of being in terms of the forest clearings in the vicinity of Japanese shrines. Buddhism echoes much of his philosophy, for the forests play an important part in the Eastern religion. The historical Buddha meditated in the forests, attained enlightenment under the Bodhi tree, taught his disciples under a tree, and entered Nirvana while lying under trees.

A strong affinity for wood and trees is deeply embedded in the Japanese psyche. We are today one of the world's leading consumers of wood and as such have a major responsibility to protect and preserve the world's dwindling forests, affording them the same respect we have always given to our own sacred groves. ■

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