

**Potential of Housing Education through Traditional Wooden Houses  
and Preservation/Succession of Historical Architecture - June 1, 2008**

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<http://www.culture-h.jp/tohroku-osaka/jyuiku-pdf.pdf> )*

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**1. Introduction**

The former British Prime Minister, Sir Winston Churchill, said, "Man builds a house, and a house builds man." Tohkuro Kato, a potter, is told to have said, " One who talk about culture must learn about architecture as basic knowledge (ref. 1) Based on the knowledge, techniques, culture, and custom which have been acquired in the various environment surrounding them, people build architecture by adding all kinds of ideas, as adequate to their land and times. Thus architecture carries its own weight backed by unique culture from the time it is built. People who use the architecture and dwell in it feel culture from the architecture and further keep on adding different or new culture to it. Major or minor modification to the house and furniture in the house, both of which have been added to meet the need

of the people using the architecture by incorporating their thoughts and ideas, are also part of the architecture bearing the culture.

Scratches or even graffiti on the posts or sliding doors (fusuma) of a house are traces of the history of the people who have lived in that house. Architecture is where people dwell and live, at the same time serving as educational material at hand to facilitate the study of people's history. If the prime objective of education is patrimony of culture, it certainly does become important to learn such a history. Architecture is the instructional material to learn history and culture and to inherit and develop them. It should not be forgotten that architecture is the cultural property which hands down culture beyond limited human life. The authors have stated up to now that traditional Japanese houses of wooden structure provide very important space as the place for building man's character and for learning to pass on the culture to the next generation (refs. 2 & 3). This article is intended to make a more detailed discussion of the relationship between architecture and education, centered specifically around traditional Japanese wooden houses among the architecture designated as the cultural heritage (cultural property).

## **2. Potential educational power held by buildings, i.e. potential of housing education**

### 2.1 Potential of housing education which is latent in traditional wooden houses

Miss Kim Myoungmin, a foreign student from Korea, visited the Hatada House, built in the early part of the Meiji Era, when she had spent half a year since her arrival in Japan. She then expressed her impression that "she felt something resembling the mental climate of her country from the warm and soft light coming through Shoji screen doors of a tatami-floored room, the appearance of the Japanese garden seen through the openings of Shoji screens, and a sign of people's presence in the reception room floored with tatami which was vaguely visible from the garden the other way around, and also sensed peace of mind and the mind of Japanese people, and even began to taste Japanese food that she did not particularly like before (ref. 4)". Her impression has served to make us recognize anew a good aspect of traditional Japanese houses which present-day Japanese people tend to forget, and has vividly described the character of old Japanese houses which serve as the place to inherit and pass on culture.

Miss Kim Myoungmin did not confine herself to her apartment house all the time since her arrival in Japan until she visited the Hatada House. As a student of Osaka University, she lived in the Japanese society, studied, mingled with many Japanese such as university professors, students and others, visited various towns outside Osaka, and went to museums and other places. When we think she could not yet understand the mind of Japanese people well, it is worth noting that she became able to appreciate it after spending a few hours at the Hatada House. We felt that we were shown the hidden power of cultural inheritance of old traditional Japanese houses, i.e. the greatness of the potential power of housing education. At the same time a suspicion also crossed our mind that it is becoming difficult for foreigners to find out the mind of Japanese people from the housing environment surrounding us today. We can understand the importance of acclaiming and continuing to use the old architecture incorporating the Japanese tradition we have inherited as well as the grave significance of carrying them over to future generations. We would like to emphasize here again the importance of utilizing the educational power of houses or educating people through architecture, i.e. the importance of "housing education."

### 2.2 School buildings and housing education

It goes without saying that school buildings including class rooms and campuses are the place to inherit and pass on culture. However, there is rarely such consideration given to the school education in Japan today. This is clear when we compare old universities in Japan with their counterparts in other countries. As a matter of course, there must be clear differences in the effect of education between the

classes conducted in classrooms surrounded by hundreds of years of history and those given in large box-like classrooms designed with consideration only to meet the needs of school management for securing capacity seats and incorporating such functions as IT equipment. We are afraid there are also too many universities in Japan which have neither museums nor art galleries and which do not even offer courses on the histories of the respective areas of science, although they must attach the most importance to such histories as their mission.

In such circumstances, for example, it may be worthy of special mention that classes and academic meetings are held in the former Main Hall designated as an important cultural property at Nara Women's University. You will find there a cultural



Former Main Hall of Nara Women's University designated as important cultural property (Memorial Hall)

asset standing out by continuing to live its life powerfully in the school campus. It seems to us that excellent jobs being performed in the society by many graduates from this women's university are not unrelated to this fact. One of the graduates and the chief representative of the Alumni Association, Ms. Jyunko Ogata, has described the importance of class rooms as the place for housing education in the following words (ref. 5).

"What is important next to encountering a good teacher is the place for learning or in other words educational environment, isn't it? A new building built only with inorganic material, such as metal and concrete, however shining, does not seem to satisfy people's mind. If trees flourishing with green leaves happen to be seen from the window, eyes may tend to turn to them. I graduated from Nara Women's University located in the ancient city of Nara. Nara is a place rich in nature and cultural heritage. Our University will mark the centennial of its foundation in 2009. We still see quite a few buildings standing in good shape on the campus from the time of the foundation. As you enter the main gate of the campus and say "Hello" to the guard at the guard house, looking straight ahead, you will see a two-story wooden building of exquisite workmanship. It's a Memorial Hall.

The front gate, guard house and Memorial Hall are all designated as important cultural properties. They are colored in pale green, and blend well with trees surrounding them in the campus, offering the same view for nearly 100 years. The second floor of the Memorial Hall is used as an auditorium, and enables you to feel a solemn atmosphere of the time when the school was originally founded as Nara Women's Higher Normal School. Those, who visit the University from home and abroad and use the Memorial Hall for academic meetings and the like, seem to gain a pleasant yet unforgettable impression. The wing used for chemistry classes where I studied was a wooden one-story building. Lectures given by professors. Interchange among students. The laboratory where I spent all day. Those days when I fully enjoyed my campus life all come back to me vividly and seem like only yesterday, along with deer from Nara Park that are strolling in the campus as well as trees providing shade from the sun. But I have no sentiment now when I visit the new wing for chemistry classes which is built with concrete."

### 3. Educational and Cultural Activities in Traditional Wooden Houses

These days school buildings from elementary schools up to universities have come to be built with reinforced concrete. Of course, we do not mean to deny reinforced concrete structures across the board. We mean to limit the reinforced concrete structure here to the box-like reinforced concrete structure designed with emphasis on functionality after the modernism style (ref. 6). It is not only school buildings that have been built with reinforced concrete but also a fairly large part of houses where

children and students live. In addition, their houses and their schools are connected with paved roads. As a result, children have fewer chances to touch wood products or earth. When we ask children during voluntary lessons delivered to schools, "Do any of you live in a wooden house?", we often find that nobody answers "Yes." Wooden houses have become so far apart from children in such a way. At a time like this, the value of educational and cultural activities being conducted inside old wooden houses is very significant.

For example, the Conservation Association of Hatada House holds the Hatada Academy with a purpose in mind to provide opportunities for young pupils and students, who begin to think even vaguely about their future, from the senior grades of the elementary school up to the senior high school to find clues to their future careers through the dialogue and study with the leading specialists of the world from various fields (ref. 7). Those young people, who participate in the Hatada Academy, enjoy hearing various talks from these specialists of the respective areas which arouse their interest in the unknown fields they have never thought of.

Listening to such talks given in an ordinary house make the students feel the speaker is so close to them that the gathering of the students and the speaker is turned into a group emotionally accessible to each other. Looking around the wooden house in an adventurous spirit going up with some fear to the mezzanine or creeping under the floor, the participating students will find utensils from the old days scattered at random here and there and look into small rooms on the mezzanine floor whose purpose of use is not known well to them. Then they think of the lifestyle and custom of the people who used the house, and feel the history and culture of the people who lived a life in an age different from theirs. Here again we would like to quote the words related by Ms. Jyunko Ogata, mentioned above, to describe the significance of the Hatada Academy held in the traditional wooden house (ref. 5).

"This is the house of Shoya, headman of a village in the Edo period, which was rebuilt in the Meiji Era after the original building built in the Edo period. As you go through the Nagaya-mon, the front gate, you come out on the stone pavement leading to the main building. Looking at the well and the rest room in the annex on your right, you enter the main building and look up from the earthen floor inside to see sturdy beams giving off good luster and the edge of the mezzanine which seem to store utensils and tools from the old days. The floor appears high enough to allow residents to get under the floor. What is that thing placed at the end of the earthen floor for? What kind of rooms are there on the other side of tatami rooms? It seems these rooms are fairly deep. Children's curiosity is aroused instantly. They start wondering how to get up to the mezzanine, what kind of life people dwelling in this house lived, what they were doing in the building over there on the other side of the garden, and so forth. Their curiosity and interest know no limits. Thus they sit on the tatami floor, vaguely sensing the scent of history and culture, and listen to the talk by the speaker. Upon returning home, these children may enjoy conversation with their fathers or mothers, who are sitting behind them or by their side in the same room, about what they have seen and heard in the old wooden house. The Hatada Academy is using the registered tangible cultural property as a class room. What a gorgeous class, isn't it?"



Talk given by Dr. Hideki Shirakawa, 2000 Nobel prize winner for chemistry, on electrically-conductive polymers at the Hatada Academy

Activities similar to those of the Conservation Association of Hatada House are being actively conducted at the Yamada House, a registered cultural property in Sennan City, Osaka Prefecture (ref. 8 and 9), and the former Niigawa House, a cultural property designated by Izumi-Sano City in that city(ref. 10). At the same time when the Yamada House was registered as a cultural property, they formed and launched the "Conservation Association of the Registered Cultural Property Yamada House," and has been holding exhibitions or concerts under the auspices of the Association on the fourth Sunday of each month as the date specified for Open House. The rice granary of the Yamada House is also open to the public as the People's Heritage Exhibition Hall. They are planning to hold such events as the making of straw mat with the equipment used from the old times. Meanwhile, the Niigawa House is a cultural property designated by Izumi-Sano City, open to the public as the Izumi-Sano Hometown Hall. Besides a monthly Morning Market, various exhibitions are being held in the Niigawa House by the NPO "Izumi-Sano Nigiwai Honpo." All of these activities are lifelong education implemented by using the wooden houses either registered or designated as cultural properties.



Hawaiian Concert at the Yamada House

The "Naya Museum" being held at the Koyama Family House, a registered cultural property in Sakai City, is carrying out a unique, outstanding activity (ref. 11). This activity was launched, after the House was registered as a cultural property, at the suggestion of housewives in the neighborhood who asked, "Is there any way we can do to help for the House that constitutes the historic scenery shared by all its neighbors?" They started first with the house cleaning by sweeping dusty Naya (barn) and Soto-Gura (outside warehouse) till their nostrils get all blackened with dust. Twice a month, they have been enjoying a get-together by actually taking in their hands farm tools and domestic utensils which let them recall life in those days with a passing thought to the lives of their forerunners, repairing worn-out Andon (floor lamp lit by candle and oil with a paper lampshade) with paper, cooking traditional Cha-Gayu (rice porridge mixed with green tea) over the old-style cooking stove, and serving the porridge in the utensil used in the old days.

Then their activities evolved into "Naya Museum" that was started in earnest from 2004. According to the planning and guidance of Mr. Masahiro Nakai, who was experienced in actual work at a museum in Sakai City, the activities of the "Make and Enjoy Museum, which enables visitors not only to see exhibits but also to "make things and enjoy themselves," were launched. Today people from all walks of life from children to adults, including housewives and students, are all going to make good use of the Naya, Mon-Nagaya (Gate Terrace House), and Soto-Gura as a museum.



Earthen Wall Plastering at Naya Museum

Because "Naya" is literally used to create the spirit of self-government that was held by "Naya-Shu" (Naya Folks) who supported the growth of Sakai in Japan's Middle Age, the house was named "Naya Museum." Themes for exhibits under consideration consist of ①Home of "Sueki" (earthen ware used

from the Kofun (tumulus) Period till the Heian Period in Japan and locally produced in and around Sakai), ② Agriculture and Life in the Recent and Modern Times, ③ Development of Ohmino Garden City and Nishino Culture Village, ④ Development of Senboku New Town, and ⑤ Nature and Environment of the Tohki River Basin. Activities of the Museum feature annual events such as Dolls' Festival and replacement of the doors with Yoshido (door made with reeds for ventilation in summer), clay wall plastering, making of baked boards for the top finish of the wall, finishing of hard-packed dirt floor, and even carpentry. We are told that they accept the voluntary cleaning work of Seika High School from its environment & welfare course and that they cooperate with Sakai-Higashi Prefectural High School for holding its "Sakai Lore" course and "Let's Make a Museum" exploratory course. We think this is a good example of highly-motivated approach to practical housing education by utilizing the old private residence as a class room.

Yoshimura Clinic in Okazaki City, Aichi Prefecture, is using a building relocated and reconstructed from an old thatched-roof farm house for training pregnant women to prepare them for natural birth. This building is said to have a very good effect on easing tension of pregnant women. While the pregnant woman feeling contractions who visits a hospital for childbirth would often experience that the contractions come to a halt once she enters a modern delivery room, she would on the contrary feel the contractions occurring in this wooden building. Since about 20 years ago, this building has seen pregnant women prepare for natural birth by wiping off dust with cloth, splitting firewood, fetching water from the well, taking lunch with the rice cooked over the kitchen furnace with the firewood, and having get-togethers. The period of such a practice varies with each woman and ranges from one week for an ordinary pregnant woman to one month for a pregnant woman with a breech baby in her womb or likely to expect a difficult delivery. We are told that this training has resulted in fewer cesarean operations. It is also said that when sympathetic nerves among autonomic nerves get tensed up contractions come to a halt, but on the contrary when parasympathetic nerves get tensed up the contractions are prompted. It is thus considered that training in an old wooden private house will show such a effect (ref. 12 & 13).

#### **4. Verification of potential of housing education held by traditional wooden houses**

##### **4.1 Warmth of wooden houses**

The Hatada House holds cultural forums besides the Hatada Academy. According to the questionnaires collected from participants, overwhelmingly many of them were of the opinion that they sat in a relaxed manner without a hectic feeling and were able to hear the speaker's talk with an unrestrained and peaceful mind in a friendly and warm environment. "Wooden houses have warmth inherited by the Japanese people living there from the old days. Modern houses tend to become superficial and disconcerted and make it difficult for us to think slowly and concentrate on doing things. Tolerance held by old Japanese houses toward changes in nature is considered the point of origin for making these houses a comfortable place to live in." The foregoing opinion describes well the character of the old Japanese house which coexists with nature and its capacity to build personality. The true mind-set of the participants may be described as "Today there are very few chances available for us to sit in a room of an old Japanese house filled with Japanese culture and hear a talk there. We can really feel easy there like sitting in a schoolroom of the old days. We think here is a good match between the house registered as a cultural property and the talk delivered there."

It is pointed out as described in the following remarks that the structural characteristics which creates a peaceful and warm atmosphere is the structure which features high ceilings, earthen walls and the visibility allowing one to see the garden with almost nothing to block the view under the eaves when looking outside from the inside of the room. "I don't get irritated here in this room even by hearing a

talk for long hours because of the high ceiling." "Nowadays this kind of class is valuable because there are very few opportunities for us to study in a building built with earthen walls and wood that makes us feel warmth. We are thus made to feel nostalgic for the old days." It is important to point out the effect of the tatami-floored room overlooking the garden as described above. "We think the school building should be designed so that each class room faces a corridor on one side and the outside scenery on the other. But such class rooms are getting less and less in number these days." The foregoing opinion shows that participation in the activities of the Hatada House has caused participants to realize the recent problem associated with education due to the increasing number of class rooms lacking the view of outside scenery and consolation when one wishes to pause for a short break. This may be said to be one indication of the potential power of housing education which is latent in old private houses.

#### 4.2 Traditional wooden houses and acoustics

The following remarks (ref. 14) by Ms. Hiromi Hatada, a soprano of Kansai Niki-kai who performed at the Hatada House, impeccably describe the relation between the traditional Japanese house and acoustics. She says, "When I converse in everyday speech, I do not speak shaking my whole body. But when I do sing, I always think how to improve the flow of breath, how to convey the vibration of the vocal chords to my whole body, and how to use energy effectively to send out my voice to a large open space. When you think of the space where you sing, while there are many sound-absorbing materials in traditional Japanese houses, European architecture, churches in particular, which is large and made of stone, has a very high ceiling in the center, enables voice to resonate in well-rounded harmony with a minimum burden on the throat and fill the hall with rich and varied sound. Although the Hatada House is a traditional wooden Japanese house, it has all the conditions required for creating beautiful music, such as high ceilings, timberwork with big posts, beams and head jambs, all hardened after 100 years have passed since it was built, as well as a large plane space inside and a spacious garden outside. The spacious garden is a great help for a singer to make his or her voice resonate well with his or her eyes looking into the distance. I think that the audience, listening to the performance in such an environment, feel the resonance of air, and hear his or her breathing. They are thus moved by a beautiful melody.

These days daily life is filled with electronic sounds, offering less and less opportunities for relishing tranquility without sound. I think that is why all the more we would like to continue providing opportunities for people to appreciate the splendor of the 'human voice' and touch the beauty of sound created by live performance. It is said that trees breathe and continue to grow even after they are cut down. I am told that the strength of a tree reaches its peak with the lapse of 200 years after it was hewn down. I am looking forward with much interest to the further growth of the wood constituting the Hatada House, hoping to be of service, even a little, to the best of my ability to help many people to gather here and enable beautiful use of this house." Function-wise, an old wooden Japanese house is well prepared as a music hall. Here again, it should be borne in mind that the effect of the tatami room overlooking the garden as mentioned in 4.1 above is pointed out. We have also recently found out that the inner court of the Hatada House is surrounded on the four sides like a small-scale coliseum by the main building, annex, connecting fences and Nagaya-mon Gate as well as by three buildings used as warehouses and a barn, is available for use as open space for music.

#### 4.3 Place for learning with the same eye level

The tatami-floor room is somewhat painful to the contemporary human who is used to sitting on a chair, and does not seem comfortable for them. Many people point out the cozy atmosphere of the Tatami room like the Terakoya (old-time Japanese basic school) held in the 18th century when it is used as the arena of learning. They say, "As the teacher is sitting within our reach, we can always hear his talk with pleasure. We believe it is hard to find elsewhere such an atmosphere as if we are sitting around the teacher."

"Although we felt it a bit painful at first to sit on the tatami floor without chairs, we enjoyed listening to the teacher's talk sitting on the futon (cushion) while looking at the garden outside the room because the distance between the teacher and students was rather short not only physically but also psychologically. We love immensely the atmosphere and the teacher's talk that sounded so familiar to us." " By sitting knee to knee with each other, even difficult subjects came easy to us." "A certain teacher was amazed at first at looking at students sitting so close to him when he entered the room because he felt as if the hearers were closing in on him. There is a sense of togetherness. It is just like hearing a lecture in a temple. That's really a good place." "I think it is a modern version of 'Terakoya,' It is significant to learn with the same eye level while sitting in a circle in the same tatami room of an old house," and so on. This notion of the "arena of learning where people can study with the same eye level" is important. One of the two authors of this article (K.H.) often experienced during his 40-odd years of his career as a teacher that there is a big difference in educational effects between teaching to dozens of students in a medium-size class room while he is standing and teaching to them while he is sitting on a chair. Better educational effect often results in the latter case. Therefore, educational effects interwoven by the tatami room and the view of the garden should not be overlooked.

#### 4.4. Openness and flexibility of Japanese houses

Rooms finished with tatami floor in old Japanese houses are usually partitioned by "Shoji" screens or "Fusuma" sliding doors, and can be used either as a private room or as a spacious hall for a large number of people by removing the partitions. These are represented by flexibility and openness which are one of the main features held by Japanese houses. A private room in this case cannot be used as a closed chamber, unlike the western-style private room in present-day Japanese houses. This tatami room may be said to serve as a perfect fit as the place for fostering the sociality of children. We wonder if it is an exaggeration to say that the decreasing number of such places for housing education is making the school education of children difficult. The following impressions expressed by the forum participants vividly describe these circumstances. "I feel composure and feel a sense of stateliness. Such features as robustness, high ceiling, and flexibility of partitions dividing rooms, tell us that this house provides a living space built for the entire family and that it is not a mere assemblage of individual rooms," and "The Hatada House is designed so that respective rooms may be connected to each other simply by opening Fusuma (sliding door), offering a liberating feeling and a place enabling the family to knit family ties with ease. But the structure of today's private houses tends to reduce chances for families to interact with each other because of respect for privacy as expressed in individual rooms."

We pointed earlier that modern Japanese houses are closed to the outside world like a shelter, completely separated from the local community and neighborhood in pursuit of amenity in one's own space solely to improve only individual satisfaction, and also that the traditional culture inherited and integrated by old Japanese houses open-mindedly together with rich natural environment and outside space (nature and local community) is being lost while the living space is becoming extremely individualistic and blocked (ref. 3).

Such trends may be found in part of private houses and may also be said of high-rise condominiums in urban areas which are recently getting popular among city residents in Japan. Even if these condominiums are not so high in height, each compartment is isolated when the entrance door of the compartment is closed, creating the state of "it doesn't matter whoever lives next door" without paying attention to neighbors at all. Even more, in the case of superhigh-rise condominiums with 40 or 50 floors above the ground, we imagine that the sense of isolation would be greater. Although they may enjoy a superb view on a fine day, residents may not spend all day looking outside. When you look up such condominiums, the top floors are at times covered with clouds, depending on the weather. When

the wind is strong, you cannot open the window even if you wish to open it to feel firsthand the breezy fresh air of springtime or autumn. Then you will have to use forced ventilation operated by electricity. We wonder if such an environment may be called an excellent housing environment.

In the world of architecture, while it is building houses which may be said to be individualistic and closed space isolated from the local community, it has created at the same time a series of powerful buildings daunting other architecture, made with steel frames or reinforced concrete, which look as if they are asserting that they symbolize civilization in the flow of modernistic buildings centered around office buildings. It has continued to show a sight of triumphant architecture backed by economic capital. This trend is still continuing, but recently a new architectural theory is emerging that it has run into an impasse (ref. 15).



High-Rise Buildings in Marunouchi, Tokyo

In our opinion, it is necessary to make at least houses live together nicely with nature and the local community without doing such things as "Mottainai" (What a waste!) like using energy to confront Nature and control it. "It would be nice if traditional houses remaining in various parts of Japan can be turned into a place for all the people ranging from babies to the elderly to gather and interact with each other in the respective communities and into a place for enabling us to feel the important value of being a Japanese. Moreover, it would be desirable to have more places for local residents to keep contact with each other in their communities." The foregoing opinion indicates that there exist demands now for such openness and capacity to foster sociality as can be provided to humans by the traditional wooden houses where many people have lived continuously for many years through generations.

#### 4.5 Architecture serves as a teacher as well as a place for learning

As mentioned at the outset of this article, if the prime objective of education is to inherit and pass along our national culture, there is no question that it is important to learn history. The creation of the future begins with deep thoughts on history. The exterior and interior of the old architecture both serve as a place to pass along to the present and future generations the life, custom and culture of many people who have dwelled there using them for many years. They must have certainly served as the class room and teacher for them to learn, inherit and pass along history and culture. For example, when the Old Town of Warsaw, capital of Poland, once destroyed by the war, was restored, they were recreated in exact detail even to a scratch on the tile of the exterior wall according to the old records. That was probably because many citizens of Warsaw must have had a good understanding of the significance of the old architecture as the place for learning history. Among the three elements of clothing, food and housing, architecture for housing seems most powerful in passing along the history to future generations. That is why we stress the importance of housing education.

"Among these three elements of clothing, food and housing, we think housing retains the ancestor's way of living in the best way. By spending one or two hours in the residential space of the Hatada House, young people should be able to feel that the Japanese ancestors' way of living was meaningful." "We think the movement of people in those days is best preserved in traditional Japanese houses, and that the very movement of those people leads to the verification of the manners and discipline inherent to the Japanese people." "We feel that temporal axis always lies near us in the Hatada House that provides a place for use to think through." These opinions indicate that people participating in the cultural activities of the Hatada House are fully aware of the importance of traditional wooden houses as a place for learning, and impress us strongly with the educational power of the old private residence.

"We learn by sensing 'Wa' (harmony) and feeling Japan first-hand. Intuition tells us that the traditional Japanese house helps us absorb learning quickly." This kind of opinion demonstrates that the traditional Japanese architecture, which inherits and passes along the history of the Japanese people, is serving as a class room with the power to activate the mental activity of the present-day Japanese people living today and also as a place of housing education for them. Although the data available is limited only to those of Osaka Prefecture, we have found that very few buildings built in the 1950's and thereafter have been registered as cultural properties (ref. 16). This is not only because not so many buildings built in the Showa era have exceeded 50 years since they were built but also because such circumstances are not isolated from the post-war trends in architecture which have considered buildings simply as boxes for keeping off the rain and even as consumables in some cases. What we need to do now is not only simply to preserve and utilize the existing traditional Japanese architecture but also to build, utilize and preserve such architecture as is capable of bearing our present culture and passing it along to the future, i.e. the architecture which would be worth becoming a cultural property of the future. We feel that we should be sorry to our descendants of the future generations if there should be hardly any architecture found remaining in existence 100 years from now as a historical heritage of the Heisei era.

## **5. Houses are a gold mine of wisdom, a source of creative mind.**

Old houses are full of innovations devised by the various people who have lived there as well as wisdom of the masters specializing in various fields. Needless to say, the fruits of advanced science and technologies which pursue convenience and amenity are fully applied to houses of today. While the fruits of advanced technologies tend to drain the thinking power of the man, old houses harbor the very basic elements of the innovative mind that may be said to be the source of human ideas. The typical room layout of a farm house like a shape of the Japanese kanji character "Ta" or paddy field arranges four rooms, each of a similar size, two rooms connected to each other on each side, separated only by removable sliding doors so that the four rooms turn into one big spacious room for social functions when the sliding doors are all removed. The long eaves projecting outward prevent the sunlight from coming in during the hot summer and let in the sunshine in the winter to warm the rooms. In the case of rain, the eaves provide a makeshift working space under it. The space immediately under the eaves is also used as a place for storing long poles, such as the poles used for "Koi-Nobori," carp-shaped streamers usually hung in early May for the Boy's Festival. The rat preventive device called "Nezumi-Gaeshi" for the storehouse is an excellent idea born from a close observation of the rat's behavior. The "Sao-Bakari" (steelyard balance) is an application of the principle of leverage. The "Gando" (hand-held light) might as well be said to be a flashlight using a candle, and is found to contain the basics of physics and chemistry when examined closely.

The Japanese cooking stove called "Hettsui-san" that is often found in the kitchen of the old Japanese house is designed so as to fit the size of pot to be used by placing rings of various sizes on the stove. For example, if you want to use a small pot for cooking on the "Hettsui-san," place a large ring first on the stove, then a medium-size ring on it, and lastly a small ring. The "Hikeshi-Tsubo" (fire extinguishing pot) is also one of various other ideas. We hear that the combustion efficiency of the stove varies considerably depending on the workmanship of the plasterer. Some of you may remember that Japanese children used to enjoy finding many ideas by using the stove. It is well known that the smoke coming out from the stove is used to prevent and kill insects in such a Japanese wooden house. We can find many wonderful ideas in the construction method of traditional Japanese houses (refs. 17 & 18). In the old days children often spent hours after school till dusk watching carpenters at work. They were able to learn not only the technique of the carpenter but also the mind of the carpenter. Therefore, we should bear in mind that such things were helpful in fostering the creative ability of

children in those days.

## **6. Spirit of "Mottainai" (What a Waste! ) and traditional wooden houses**

As mentioned briefly in the preceding chapter, burned embers of the firewood in the stove are extinguished in the fire-extinguishing pot by shutting off air. This is called "Karakeshi", which is a sort of foamed charcoal easy to catch fire and reusable as convenient fuel for cooking over the charcoal stove or for getting the fire started in the hibachi (charcoal brazier). This is a wonderful twist of life. This idea of preparing "Karakeshi" is one example of the mindset, called "Mottainai" (What a waste!), that resents the idea of throwing reusable things away but favors the thought of making good use of them (ref. 19).

In the old days, when the roof was refinished, old roof tiles (Kawara) were taken down with due care, and were reused once more as a general rule for finishing the roof after the base of the roof was repaired. Then it may become necessary to replace cracked or damaged roof tiles with good ones. Therefore, it was a usual practice to reserve a proper number of roof tiles to be needed later for replacement according to the size of the roof. Since it is difficult to make a new completely the same tiles in size and shape as before, new tiles, if replaced with old ones, may cause leaks in case of rain or may be blown away by typhoons. Such a small idea of reserving extra roof tiles for replacement should make it possible to use the same type of tiles even after 100 years or more from the time the house was built.

When the Hatada House needed refinishing of the roof at 110 years after it was built, we ran out of roof tiles kept for replacement and had to use new ones. In recent years we see a trend of people throwing away, without hesitation, roof tiles used for only 30 years or so. Such a sight causes us to weep tears at the thought of "Mottainai." It also leads to environmental pollution. In Okinawa, the southernmost islands of Japan which are often hit by typhoon in summer, the number of concrete houses has increased of late, but we still see fairly many houses finished with roof tiles. As roof tiles are firmly fixed in place by plaster to prepare against typhoons, extra work is required to wash away the plaster to enable replacement of the roof. Nevertheless, roof tiles are still kept with care for replacement to make it possible in the traditional way (refs. 17 & 18).

'The law concerning the recycling of materials associated with construction work (the Construction Material Recycling Act)' was put into effect in May 2002 with a view to recycling construction waste and preventing environmental pollution by demolition waste. In case a house is dismantled into pieces by heavy equipment in a manner named so-called "mince demolition," all the materials including roof tiles that were used for the house turn into waste. What sheer waste! Precious resources keep turning into nothing, and wastes pollute environment. The framework of traditional old Japanese houses is composed of comparatively thick members unlike wooden buildings built in large numbers during the postwar period of high economic growth, and is assembled by ingenious joints called "Tsugite" and "Shiguchi" using only few nails. This framework enables the reuse of many of the materials once disassembled with care (refs. 19 and 20).

You may be interested to know that Prof. Toshio Ojima of Waseda University is engaged in repeated experiments on the campus of the International Craft Academy in Toyama Prefecture by building a two-storey wooden house with 9 rooms occupying the total floor space of 77 tsubo or 255 square meters, disassembling it after people have dwelled there for a few years, and then relocating it to another location for use again as a residential house. We hear that when the house is dismantled and relocated, 95% of all the materials including wall clay can be used again. This is a fine demonstration to show how superb the construction method of a traditional Japanese wooden house is (ref. 20). In the Hatada House, the structural members of the 120-odd-year-old former house which were dismantled to build the present house are still kept in reserve for repair.

When Dr. Wangari Maathai, Kenya's Vice Minister of the Environmental Ministry, who received the Nobel Prize and other awards for initiating the Green Belt Movement (tree planting efforts) in Africa, visited Japan in 2006, she was so impressed with the unique Japanese expression of "Mottainai" that she decided to spread it to the world and is said to have introduced it at United Nations as a slogan for environmental protection (ref. 21). We also hear that Dr. Koichi Tanaka's research that qualified him to receive the Noble Prize in Chemistry was prompted by the fact that wrong organic solvent was used by mistake for dispersing the sample but was not discarded because it was considered "Mottainai" to do so. Instead it was used for the experiment, leading to the successful discovery. The word "Mottainai" is now becoming popular throughout the world (ref. 22).

Aside from this, the original Japanese-language version of the article entitled "Ingenious Ideas Seen in Ancient Japanese Homes" has been accessed 4,764 times as of May 31, 2008 since May 22, 2006 when it was introduced on the website in the pdf form, while its English translation has recorded 12,691 hits since then . There is no doubt that traditional old Japanese houses are arousing international interest along with the word "Mottainai." We do expect that such an interest will lead to better understanding of the Japanese mind held in these houses.

Meanwhile this mindset of "Mottainai" is one of the fundamental spirit that is consistently maintained throughout the time-honored life of the Japanese people. The word "Mottainai" mentioned above implies that it is a shame to throw away things without making full use of their value, but this word is also meant to express respects, appreciation or gratitude for generosity, representing the important part of the Japanese mind and mental activity that we Japanese love and respect the existence other than ourselves including 'Nature' and co-exist with it. Japanese children bred in traditional old Japanese houses have acquired the mind of the Japanese through hands-on experience by actually doing by themselves such things as taking care of the Kamado (cooking stove) to prepare supper. Sir Winston Churchill once said, "Man builds a house, and a house builds man"(ref. 1). As expressed in his words, traditional old Japanese houses have precisely been playing the role of a "Dojo" (training school) to pass along the traditional Japanese culture to Japanese children and provide them with the power to create their own culture.

## **7. Let us elevate the cultural power of elementary school children**

### 7.1 Promotion of cultural property education at elementary schools

We stressed earlier the significance of offering education on cultural property at elementary schools as well as need for it (ref. 23). Meanwhile, the former Education Ministry renamed in 2001 as Ministry of Education, Culture, Sports, Science and Technology, distributed in 1999 to each and every elementary school a guidebook titled "Fostering Mind to Cherish Culture and Tradition" (ref. 24). Traditional culture is treated in it as educational material for promotion of moral education. To appreciate and pay respect to traditional culture leads to fostering well-rounded humanness as a Japanese in the international community, dealing with moral in a broad sense. In this respect, it is hoped that even those who, hearing the word "moral education," may be reminded of the old-style moral education and feel allergic toward it would agree to the appreciation and respect of traditional culture.



Guidebook on moral education, titled "Fostering Mind to Cherish Culture and Tradition" (reprinted with permission from the Ministry of Education, Culture, Sports, Science and Technology)

According to the first chapter of this guidebook, "Well-rounded humanness may be said to represent the morality itself which expresses a humane mind." The guidebook also says, "Whatever age may come or whatever society may arrive, it is important to cultivate moral mentality and judgement by cherishing moral values, which form the very base of humanness, as never-changing values. We might as well call them the basis on which to support a 'zest for living'." Furthermore, it also goes on to say, "Promotion of education to foster the mind to care for culture and tradition helps to nurture attitude toward paying respect to the Japanese culture and tradition and at the same time cultivating the mind to appreciate and respect the culture and tradition of other countries. .... Some people may think that culture and tradition are old things from the past, and that what is important is the present. Nevertheless, cherishing culture and tradition is not necessarily going backward towards the past. What is important is the imagination capable of visualizing things invisible to the eye. .... To think of culture and tradition is to think of the importance of human relations that we cannot see with our own eyes." On this premise, the guidebook then goes on to stress that collaboration with people in the local community is essential in nurturing a mind caring for culture and tradition. The guidebook also says, "There are cases where those engaged in the preservation and inheritance of traditional culture tend to attach importance to guidance from the standpoint of preservation and inheritance. Then the purpose of education to nurture the mind to cherish culture and tradition could be turned into that of simply inheriting traditional culture. In this respect, it is important for children to develop their own will to cultivate rich sensitivity and imagination as well as to develop culture and tradition by themselves, by learning traditional culture." We are in complete agreement with each of these statements.

The textbooks being used by the 3rd-and-4th-grade pupils of the current elementary schools in Japan provide explanations on the livingware and daily life in traditional old Japanese houses, in response to the philosophy of the above-mentioned guidebook, under such titles as "Life in the old days," "Development of the local community," and "People who have contributed to the development of the local community." In Osaka, introduction of the old-time private school (called "Tekijuku") run by Koan Ogata, a scholar on Western studies, is made. Traditional performing arts, such as Tenjin Festival and Bunraku (Japanese puppet show), are also introduced to elementary school pupils. For upper graders in the 5th and 6th grades, geography lessons cover the local areas of elementary schools and extend as far as entire Japan and the whole world, linking to history lessons in junior and senior high schools.

We find many cases where the dirt floor space of the kitchen along with the furnace and other kitchen utensils are still left intact in residences registered as cultural properties, enabling elementary school pupils to see and touch real things directly when they visit such old houses for the lesson on "Life in the old days." They not only just touch old utensils, but also they get to feel "something" which does not exist in present houses. Whatever we saw when we were children is deeply etched in our memory even if we did not understand what it meant. As we get older, we begin to appreciate the meaning of our experiences as well as the underlying principle and philosophy. We think it would be best to plant seeds at the stage of elementary school to have citizens understand and recognize the significance of the registered cultural property system and need for it. Such a practice would give a deeper understanding and recognition to not only to the future generations but also to the guardians of the present children and the people of the community by arousing their interest. It is because elementary school education is closely connected with those guardians and the local community through the Parents and Teachers Association (PTA).

The principle of competition in the market economy appears to offer various ingenious, colorful consumer goods one after another to wet consumers' appetite, and it also seems that people are daily spending their energy greedily in pursuit of such gorgeousness. Probably due to such trends, those people born after the postwar high economic growth period appear to show a marked tendency to find

beauty or value only in newer or novel things. Yet, products based on only low-level cost consciousness or convenience or so-called economic rationality are also the products of throwaway philosophy, and tend to become superficial and frivolous, however new and beautiful they are at the point in time when they are produced. Continuous daily contacts with such things may cause people to unknowingly lose eyes capable of discerning the real from the false and to care less for things and waste resources, with potential results leading to adverse environmental effects.

Of course, newness forms part of beautiful elements, but such beauty tends to show a strong superficial character. Although things are getting old and untidy in appearance with the passing of time, it is considered most essential now to enable children to foster the capability (sensitivity) to feel as beautiful and wonderful things such potential values hidden in the cultural properties as stories involved, things fashioned by humans with time and trouble, and old things inherited as the inner fruits of human behavior. Now that history education is under heated discussion, we feel that education dealing with ways of looking at things from such a perspective as this needs to be considered.

The word "cultural property" is likely to associate it with a hard and difficult image along with somewhat very noble atmosphere, visualizing such things as world heritage, national treasure, or important cultural property or designated cultural property. In fact, cultural property has been the subject for research by universities or advanced research institutes. In recent years, however, we have seen an increasing number of cultural properties very close to our daily life like registered cultural properties. In view of such circumstances, we would like cultural properties to serve elementary school education by making good use of them as educational material in helping children to gain an understanding of cultural properties in a simpler, digestible form. It is our sincere wish that such a practice would enable us to develop and bring up humans capable of discerning the real from the false and comprehending the substance of things.

## 7.2 Recommendation for lectures delivered to elementary schools by guest instructors

As one of the means for us to realize our ideals on education philosophy regarding the cultural property as mentioned in Chapter 7.1, there are lectures delivered to elementary schools by guest instructors (refs. 25 and 26). When such a lecture is given at an elementary school, we often are asked questions, such as the following: "Why are thin things so flexible?"; or "Old used rubber doesn't return exactly to the original shape when stretched, then gradually gets sticky to the hand and finally becomes worn out due to deterioration. Why is that? "; or "What is the difference between the bouncing of a ball and the stretching of rubber?" These questions are well thought after careful observation, and touch upon the essence and fundamental principle of things.

Elementary school children, blessed with sharp observation and well-rounded sensitivity, are developing their power to approach the essence of things as well as their capability to generalize these things by observing many things and wondering, "It's strange?" or "Why?," on the results of their findings. However, we have a strong hunch that they seem to be losing these power and capability as they advance from junior high school and then to senior high school. If that is the case, we think that must be because of the social trends which confuse study at school with study for examinations. However, it would be rather more constructive for us to make efforts to inculcate on children during their elementary school days abilities required in humane studies, social science, and natural science, such as



Lecture on the subject of plastics, delivered to the elementary school by H.K

sharp observation power, well-rounded sensitivity, and curiosity, than to lament over the adverse effects of entrance examination. In order to achieve this objective, according to the teaching experience gained by one of the authors (K.H.) during his 30-odd-year career, lectures delivered to a school by experts from outside the school on the basic philosophy of the respective fields are considered extremely effective. This is because it is becoming difficult due to various circumstances to provide education on the basic principle of the fields associated with lessons at school which should primarily be given at normal lessons in school education (ref. 26).

There is a lot of talk going on about the review of more relaxed education or leisurely education policy, and the lessons provided for integrated study, which are intended to develop the ability of children to find problems at their own initiative and solve them on the basis of the knowledge they have acquired, are being reconsidered. However, such comprehensive learning as provided for integrated study should be able to offer education to awaken the sensitivity of children by collaboration with their homes and community, even though the contents of the comprehensive learning may not be touched on in their textbooks. One of the important benefits would be learning associated with cultural properties as the mental nourishment for creation toward the future by appreciating the footprints of their ancestors. That is where positive approach is expected at the actual school scene, and it is also appropriate subjects for lectures by guest instructors. As a matter of fact, when we give a talk to elementary school pupils about the "Ingenious ideas for living in traditional old Japanese houses" (refs. 17 and 18), fairly many of them show interest in the fact that people in those days had lived a life by devising many ideas, as described in Chapter 7.3 below.

When we look back on the history of Japan from the perspective of spirituality or mentation or mind, one thing comes to our mind. That is the appreciation of art by viewing the ancient sculptures of the Buddha that is associated with Buddhism art. Unlike the days of the present authors, it seems that there are only a few occasions for school excursions to visit historical heritage in Nara or Kyoto. For example, if anybody has a chance to appreciate closely with appropriate explanations such statues as those created in the Tenpyo Era and placed in Todaiji Temple in Nara, he or she should be able to comprehend the splendor of the Japanese culture which rivals or surpasses the artworks of Europe, judging from the profoundness of those artworks. Under the present circumstances where Japanese children expected to lead the next generation grow up without experiencing these things, we cannot help saying that we cannot hope to see a Japanese born who can come through the international community.

### 7.3 Support for elementary school education at traditional Japanese houses

The traditional old Japanese houses may be becoming the existence far from the present elementary school children. Yet, fairly many pupils know of the "Daikoku-Bashira" (mainstay), and some of them know that the "Daikoku-Bashira" also has a meaning of dependable person. When we told those children that there are two kinds of "Daikoku-Bashira" in the house owned by one of the authors (K.H.), many of them were surprised to hear that because they had thought there is normally only one "Daikoku-Bashira" in the house. Taking advantage of such an occasion, by using the two kinds of "Daikoku-Bashira" as teaching material, it would be possible to give them a little higher-level talk, such as the spirit of cooperation and collaboration in the human society or need for the  $\pi$ -type humans in the modern society.

We found the following comments among the impressions, described in Chapter 5, which were written by the children who heard a talk on the traditional old house and utensils used therein. "People in the old days used to come up with many ideas." and "People in the old days also used to come up with many ideas." Although these two comments resemble each other in contents, there is a slight difference in meaning between them which hints an important issue of how to deal with the children of the present generation who are heavily involved in the progress of science and technology. We feel from the former comment the nuance that seems to imply that "people in the old days were working

hard to develop ideas. We also have to work hard," while the latter comment seems to mean that "although we did not know till now, people in the old days were also developing various ideas." Based on these comments, we have found that the historical fact of ideas born from the people of the old days is effective in making children realize the importance of the "creative mind" which serves as one of the methods to solve the problem of "moving away from thinking" rather than that of "moving away from the sciences" that has resulted from the progress of science and technology. Impressions of children teach us that history lessons are not intended for them to simply learn by rote but are provided for humans living now to open their future. Old houses awaken adults and children alike to the things which are important for humans to live. A little aside from the subject, when we gave a talk at some elementary school about the purposes of study and told the children there that one of those purposes is to build a peaceful world, one of the impressions written by the children said, "To study for the world peace is the same thing as to study so as to build a future, isn't it? I think it is like handing over a future to the next generation one after another in the same way as the baton relay." It is worth noting here that even elementary school 5th graders are already extending their thoughts to the futures of the world to such an extent.

Traditional old Japanese houses are filled with seemingly wasteful rooms and/or space and utensils that are hard to find useful purposes. Such waste and leeway constitute the point of origin which nurture and foster children's curiosity, inducing intellectual excitement and causing the children to wonder, "there must be something over there" or "what will happen there?" In other words, old wooden houses also serve as the point of origin for the mental activities of the Japanese people (refs. 17 and 18). When one of the present authors (K.H.) delivered a lesson to a certain elementary school, he referred to the relation between a hat and the head by saying, "The head is not for wearing a hat but for using brains." Then one of the girls replied, "I always feel excited wondering what will happen tomorrow." Her remarks triggered the lecturer to say, "When you imagine various things, that will lead to creating new things." Then, when he said, "While you are lying in bed due to a cold, it would be a fun to look up to the ceiling and visualize a devil or a lion by looking at the wood grains of the ceiling boards," the above-mentioned girl immediately responded and said, "That's it. That's it." (refs. 2 and 3) We think that if children are able to live under the ceiling with wood grains differing from each other in pattern, they should be happy. It will be one of the missions imposed on those of us who are associated with historic, traditional old houses to provide other children with same or similar chances so that they may play in such a world as they can expand their thoughts from imagination to creation. In order to realize at elementary schools the exalted spirit based on "the education aimed at inheriting traditions and creating new culture while fostering humans with a well-rounded humanity and creativity" as stated in the preamble to the Fundamental Law of Education, traditional Japanese houses are considered as a perfect educational material.

#### 7.4 Progress of science and technology and housing education

In those days when most children used to live in traditional wooden houses and when the level of science and technology was not so high as at present, they were able to learn the mind very naturally to develop ideas in chemistry or physics by looking at or using the "Kamado" (cooking stove) or making a "Furo" (bath), as described in Chapter 5. Or they were also able to acquire not only the mind to develop ideas every day but also even the knowledge about the fundamental principles of physics by looking at or actually using the products devised by the ancestors, such as "Karaus" (rice mortar), "Sao-Bakari" (steelyard balance), and "Gando" (portable light). It was possible for those children to acquire the power to engage in simple work with patience by drawing water for a bath at a house lacking water service or watering garden or potted plants. They were also able to nurture sociality as a result of living in a house without partitioned private rooms. When the present authors were small, we were strictly told not to step on the threshold as there is a God residing in the threshold. As a matter of fact, it may have been because it was not good to bow down the threshold with the body weight since the threshold

is one of the important horizontal members like joists or head jambs in the structure of a wooden house. But parents may have tried to discipline their children with easy-to-understand expression by telling them not to step on the head of the God instead of teaching them such a logic difficult for small children to understand.

In old Japanese houses, they used to replace in summer "Shoji" (paper sliding-door) and "Fusuma" (sliding door) with screen doors made by using shaved fine bamboo or stems of reed, in order to smooth the flow of air and prevent radiant heat from the outside. At the same time such a scenery created summer mood typical of Japan and emphasized coolness mentally, serving as a natural air-conditioner. The present-day air-conditioner may have indeed seemed "Mottainai" (what a waste!) to those people who loved screen doors in summer (ref. 19). We might as well take it that our ancestors left such a custom of replacing "Fusuma" in summer as a lesson to their offspring to warn them not to waste energy. Or it may be said that well-rounded spirituality as a Japanese in sensing perceptively the transition of the four seasons has been fostered through such a repetition of the customary change of "Shoji" and "Fusuma" sliding doors for each season.

Also in traditional wooden houses, the base of post is not fixed to the cornerstone. This floating-type base is said to be designed so as to prevent the strong swinging power of the earthquake from being exerted directly on the house thanks to the post sliding aside or lifting from the base. We might as well call it a splendid idea handed down by our ancestors for further development and deepening of science and technology by later generations, together with some other flexible structures which are found in the traditional construction method for wooden houses.

The feature of a traditional wooden house lies not only in the fact that its structural members consist of wood that has a high affinity for humans but also in the fact that its structure as well as utensils and ideas therein convey the basic principles of science and technology and at the same time have the power to encourage their development and deepening. To lose traditional wooden houses means to lose the important arena for education outside the school. This is one of those things that must never be allowed to happen.

## **8. Concluding Remarks**

In ancient times, humans regarded nature itself as the place to live in. As civilization has progressed in depth, a dwelling has been created as the place for a family to sleep, take meals and get together, gradually turning into the center for living. To the Japanese people who care about taking in nature into every aspect of their daily life, blessed with nature and filled with admiration for the transition of the four seasons, a dwelling must have been serving as the place to live in coexistence with nature and also as the existence deeply associated with nature and open to nature. Furthermore, dwellings have been instrumental in forming the landscape of a town in tune with the local community together with the natural environment of their surroundings.

Among the three elements of clothing, food and housing, particularly in the case of housing, such an expression as "dwelling environment" is often used. If we adopt the definition for environment as meaning the "external world seen as one surrounding humans or living things and influencing each other, or in other words, natural environment and social environment (ref. 27)," architecture must be strongly aware of environment. The dwelling environment for humans as animals should be closely related to nature and society.

As regards the subject of landscape which often becomes the talk of the town of late, we find various thoughts ranging from such a concept that the portion belonging to the human sense is varied and cannot be quantified scientifically to such an assertion as if regulatory control of landscape does not fit into scientific methods. As a result, cluttered landscape remains untouched and unattended under the name of freedom. Least of all, we do not approve of such a comment as that this kind of situation is appreciated as a dynamic sight symbolic of postwar Japan by associating it with the economic

development after the War.

Also, in the world of architecture in postwar Japan, the architectural style based on modernism that seems to project only economic efficiency to the front, became dominant including parts of residence, and it was considered most important in developing architectural design to follow this style. This trend has been continuing till now. Such a style as this has underestimated the sensitivity, one of the important elements of scientific thinking, which is the portion resultant from the mental function of man, and has placed emphasis only on the function of the economic rationality. The form created as a result of this style has led to the advent of the "popularized modernism architecture" in the shape of a box, as named by Mr. Kiyooki Takeyama (ref. 28), which has done away with the seemingly unnecessary parts that exist in traditional Japanese architecture. Such architecture as this formed by cutting away the important part that provides food for human creativity in consonance with the sensuous part of humans cannot be said to be superior as environmental objects surrounding humankind.

In connection with one of aesthetic Japanese adjectives, "Utsukushii" (beautiful), nation building toward a beautiful country is being advocated. In order to achieve such an objective, it is necessary to fully appreciate the history and culture of Japan by giving fair evaluation to the existing cultural property, historic architecture in particular. A "beautiful country" means the nation which is beautiful in both landscape and human mind. It is told that Albert Einstein contributed the following words of appreciation and hope to the Asahi Shimbun, one of Japan's leading national papers, when he left Japan after about one-month's stay in 1922. He said, "The especially deep impression I received during my stay is that I was made to realize that there still exists such a nation on earth as the Japanese people who are modest, benevolent and sincere." And he added, "Because the landscape of Japan from mountains and rivers to all kinds of trees and grasses is beautiful and Japanese houses have unique values conforming with nature. I hope the Japanese people will not be infected by Europe (ref. 29)." Einstein must have felt that Japan as a whole was the world's cultural property, and thus sent hearty cheers to the Japanese people who inherit it, we think. Bruno Taut, the German architect visited Japan 11 years after Einstein had left Japan, and spent three and a half years in this country. When he visited the Katsura Detached Palace, he is also said to have commented, "The Palace is so beautiful that one would shed tears (ref. 30)."

While in Japan, Bruno Taut touched upon many buildings and traditional arts and at the same time called on a broad array of cultural figures. He made efforts to evaluate and introduce Japanese culture through his unique writings and lectures, and left behind the following words which is inscribed on the stone monument erected on the grounds of Shorinzan Darumaji Temple in Takasaki City, Gunma Prefecture. "I Love Japanese Culture. (Ich liebe die Japanische Kultur)" (refs. 30 ). We, the authors of the present article, consider it as the mission of those of us associated with traditional Japanese houses to deepen the understanding of Japanese culture through housing education so as to respond to their wishes. Also, as described in Chapter 4.5, we must not forget to preserve and pass down traditional Japanese houses, which bear our present culture and which are capable of passing it down to future generations, and at



Katsura Detached Palace



Senshin-tei where the German architect, Bruno Taut, stayed for two-odd years. (Courtesy of Shorinzan Darumaji Temple)

the same time to create new architecture of the Heisei Era that exceeds modernism.

## 9. References

- (1) Fumihiko Isshiki , "Culture of Housing - The river keeps flowing" (in Japanese)  
<http://www.geocities.jp/kokentik/sumai/culture1.html>
- (2) Koichi Hatada and Yoshihisa Hayashi, "Traditional Japanese House as Classroom for Handing Down Culture" - Importance of 'Housing Education' (in Japanese), the home page of the Osaka Owners Association of Registered Tangible Cultural Properties of Japan - Essays <http://www.culture-h.jp/tohroku-osaka/bun5.html>
- (3) Koichi Hatada and Yoshihisa Hayashi , Kenchiku to Shakai(Architecture and Society, Journal of Architectural Association of Japan), May 2006, pp. 36-37
- (4) Koichi Hatada, Kenchiku-i (Journal of Architectural Conservation Society of Japan, in Japanese) Vol.8, pp.56-57 (2000)
- (5) Jyunko Ogata, "Let Us Brighten the Eyes of Children - In hopes of further development of Hatada Academy"(in Japanese), Annual Report of the Conservation Association of Hatada House, No. 6 , (2007), p. 8 <http://culture-h.jp/hatadake-katsuyo/nenpo6.pdf>
- (6) The modernism style is a new architectural style created at the beginning of the 20th century by categorically denying the decorative portion of the historic style. It was developed in pursuit of the efficient architectural design and production method which fit the development of a capitalistic manufacturing system, and is becoming established centered around Asia and America as a way of a primary building method in the modern society. Reference: Kiyooki Takeyama, "Problems of Modernism Architectural Design with Priority on Productivity and Direction of Its Development"(in Japanese), Kenchiku to Machizukuri(Architecture and Town Development), No. 351, (2007), p. 22
- (7) Home page of the Conservation Association of Hatada House  
<http://culture-h.jp/hatadake-katsuyo/>
- (8) Home page of Sen-nan City  
<http://www.city.sennan.osaka.jp/~maibun/bunkazai/yamadake.htm>
- (9) Tohru Yamada, "We want to protect the registered tangible cultural property! - Our hard fight"(in Japanese), the home page of the Osaka Owners Association of Registered Tangible Cultural Properties of Japan <http://www.culture-h.jp/tohroku-osaka/bun8.html>
- (10) Home page of Izumi-Sano City  
<http://www.city.izumisano.osaka.jp/section/rekishi/minka.html>
- (11) Masuyo Koyama, "Naya Museum - We Enjoy "Making Things"(in Japanese), the home page of Osaka Owners Association of Registered Tangible Cultural Properties of Japan – Essays <http://www.culture-h.jp/tohroku-osaka/bun11.html>
- (12) Naomi Ohkawa, "How to Make Good Use of Historic Buildings" Publication Symposium (Toward Utilization of Historic Buildings) - "Utilization from Now"(in Japanese)  
<http://www.gakugei-pub.jp/kanren/rekisi/semi05/02-5.htm>
- (13) "How to Take Advantage of Historic Buildings"(in Japanese) edited by Shin-ichi Shimizu, Hiroko Minoda, Yasumichi Mifune, and Satoshi Yamato, Published by Gakugei Shuppansha, 1999 ISBN4-7615-3079-0  
<http://www.gakugei-pub.jp/kanren/rekisi/semi05/index.htm>
- (14) Hiromi Hatada, "Hatada House as Open Space for Music"(in Japanese), the Annual Report of the Conservation Association of Hatada House, No. 4, p. 5  
<http://culture-h.jp/hatadake-katsuyo/nenpo4.pdf>
- (15) Kengo Kuma, "Defensive Architecture"(in Japanese), (2004), Published by Iwanami Shoten
- (16) Koichi Hatada and Yoshihisa Hayashi, "Summary of Registered Tangible Cultural

- Properties in Osaka Prefecture"(in Japanese), the home page of Osaka Owners Association of Registered Tangible Cultural Properties of Japan- Essays  
<http://www.culture-h.jp/tohroku-osaka/bun2.html>
- (17) Koichi Hatada, "Ingenious Ideas Seen in Ancient Japanese House"(in Japanese), 2004, published by the Conservation Association of Hatada House, ISBN4-903247-01-5  
<http://culture-h.jp/hatadake-katsuyo/shuppan-2.pdf>
- (18) Koichi Hatada, "Ingenious Ideas Seen in Ancient Japanese House"(in English), English translation by Eri Ichikawa, the home page of the Conservation Association of Hatada House <http://culture-h.jp/hatadake-katsuyo/shuppan-2-eng.pdf>
- (19) Koichi Hatada , "Mind of 'Mottainai' (What a Waste!)" (in Japanese), Kobunshi (*Gazette* of the Society of Polymer Science, Japan), 52, (2003), pp. 490-491
- (20) Toyama Project by PRH Study Group, Toshio Ojima Laboratory, Waseda University(in Japanese) <http://www.ojima.arch.waseda.ac.jp/~prh/toyama/index.html>
- (21) Wangari Maathai, "Earth Will Be Greener by 'Mottainai' (What a Waste!)" (in Japanese), Translated into Japanese by Shin-ichi Fukuoka, Published by Mokuraku-sha in 2005
- (22) Lecture Meeting in commemoration of 2002 Nobel Prize for Chemistry received by Guest Speaker, Koichi Tanaka (Nano Tech 2003 + Future, Feb 26-28, 2003)  
<http://www.nedo.go.jp/nano/nanotech/tanaka.html>
- (23) Koichi Hatada and Yoshihisa Hayashi, "Utilization and Preservation of Registered Tangible Cultural Properties and School Education" (in Japanese), the home page of the Osaka Owners Association of Registered Tangible Cultural Properties of Japan  
<http://www.culture-h.jp/tohroku-osaka/bun1.html>
- (24) "Elementary School - Fostering Mind to Cherish Culture and Tradition"-  
 Guideline for Promotion of Moral Education (Teacher's Guidebook in Japanese)  
 Published by Ministry of Education in 1999, p. 7
- (25) Koichi Hatada, "Pleasure of Lessons Delivered to Elementary Schools - Head Is Not for Wearing A Hat but for Using Brains to Think" (in Japanese), the home page of Osaka Owners Association of Registered Tangible Cultural Properties of Japan - Essays  
<http://culture-h.jp/hatadake-katsuyo/bun5.html>
- (26) Koichi Hatada, Wataru Shibuya and Fumiko Yano, "Education in Japan toward the Future" (in Japanese), the home page of the Osaka Owners Association of Registered Tangible Cultural Properties of Japan  
<http://culture-h.jp/hatadake-katsuyo/bun19.html>
- (27) "Kohjien" (Japanese dictionary comparable to the Oxford English Dictionary)  
 Published by Iwanami Shoten in 1998
- (28) In the paper quoted in Ref. 6 above, Mr. Kiyooki Takeyama refers to what he calls "Popularized Modernism Architecture" as another example of modernism architecture or modern architecture. They are represented by a large number of buildings around us which have been built after the modernism style initiated by Le Corbusier (French architect) and the subsequent modern architectural style by just copying them without careful consideration.
- (29) "Tensei Jingo" (Vox Populi, Vox Dei) column placed in the April 16, 2005 issue of the Asahi Shimbun morning edition.
- (30) "Bruno Taut. Who Is He?", the home page of the Bruno Taut no Kai  
<http://www.serere.jp/taut/taut.html>