A future for the historical city of Hikone

Takashi Doi

The author, currently professor at the School of Human Cultures, University of Shiga Prefecture, Hikone, Japan, teaches house design, carries out research leading to a theory on the spatial structure of human settlements in Japan, and parallely acts as a design advisor for human settlements as well as a practicing architect. Dr Doi, who was born in Yokohama, took his degrees as an architect-engineer Bachelors, Masters, and Ph.D in engineering - from Kyoto University. He completed the Education Program provided by the Graduate School of Ekistics of the Athens Technological Organization, Greece, and studied at the Department of Urban Studies and Planning of the Massachusetts Institute of Technology (M.I.T.), where his advisor was Professor Kevin Lynch. Prior to his present position, he was a member of the teaching staff, Department of Architecture, Kyoto University and a Professor of Architecture at the Akashi National College of Technology. Dr Doi has been a member of the World Society for Ekistics since 1986. The text that follows is a slightly edited and revised version of a paper presented at the WSE Symposion "Defining Success of the City in the 21st Century," Berlin, 24-28 October, 2001.

Traditional Japanese settlements and landscape

• Perceptual model of Japanese human settlements: That the Japanese perceptual model of human settlements structure is very different from those witnessed in other parts of the world is not a pervasive idea. Let me explain this by taking the examples of four different civilization areas — Mesopotamia, India, Egypt and northern China — where cities were born along big rivers, all in desert or semi-desert landscapes, certainly not in woods and forest regions. The spatial structure of the cities in such areas has adopted naturally the convex shape that is needed in order to construct defensive walls around and to build the city with high density, protecting the people from enemies who could attack them rather easily, due to the flat desert ground on which cities were built. The result was a thoroughly man-made environment with very high density in terms of population and construction protected by strong walls.

The image of the earth or the image of the world in Mesopotamia and Mediterranean cultures (fig. 1) was expressed as a "circle" representing the horizon and a "cross" representing the line of the equator and its axis of rotation. The Roman Templum, for example (fig. 2), symbolizes the world and the sky in a similar way. It was similar also in the Middle East, in Egypt and in some ancient Mediterranean regions. The symbol of the city or human settlements in general is said to be copied from the image of the earth or the world. The hieroglyph indicating the word "city" in Egypt is similar or identical to

the one symbolizing the earth or the world. And so is the case of a famous bas-relief showing city life in the Assyrian period (fig. 3). These provide sufficient evidence that human beings in their minds apply their world image on their settlements (fig. 1). At the central point of the model stands a vertical axis connecting the sky where God exists to the underground where the other world exists. This image of the world and the city in the ancient civilizations of the Middle East and the Mediterranean region has been inherited, I think, by the entire Indo-European part of the world and it is still valid at present.

The Japanese image of the world is a concave model, so to speak (fig. 4). Most villages in Japan are at the foot of mountains, surrounded by other mountains and forests. This may derive from the topography and the climate. The ancient people of Japan attached very great importance to living places surrounded by mountains and forests. So here too humans copy their world image into their settlements at all levels of the hierarchy, from room to region. Many ancient written documents in Japan provide evidence in support of this hypothesis. For example, in ancient times, the Japanese would select such places to locate capital cities such as Nara and Kyoto. Villages and houses were also made in such a way. I believe this tendency continued into later periods.

In this model the sacred places are not in the sky but in the forests and the mountains just behind the villages where their ancestors lie. In Japanese culture gods have been our ancestors. It is believed that the ancestors in the forests and mountains protect their descendants living in the villages. After sufficient time, ancestors move horizontally from the mountains to the "Sacred Place" beyond the ocean where they are believed to become gods. Everyone arrives there finally after death. In ancient times coffins were often made in the shape of a ship intending to cruise and arrive at the "Sacred Place" over the ocean. Until very recently pregnant women gave birth to their children in a temporal "birth hut" in villages along the sea coast — a custom that continued from ancient times, connected to their belief in reincarnation from the Sacred Place beyond the ocean.

Human settlements of Japan are places surrounded by mountains and forests with sacred sites behind the villages, which later become Shinto shrines at the foot of the mountains. People's strong sense of direction towards another world or a higher sacred place extends toward mountains and beyond the sea. Our consciousness of space thus extends rather horizontally, not vertically as in other parts of the Eurasian continent. In my view this is the reason why our architecture as well as our townscape and village-scape show, in their design, predominantly a horizontal tendency. I believe that the uniqueness of our settlements comes from the belief that I have

Ekistics, 415, July/August 2002

416, September/October 2002

417. November/December 2002

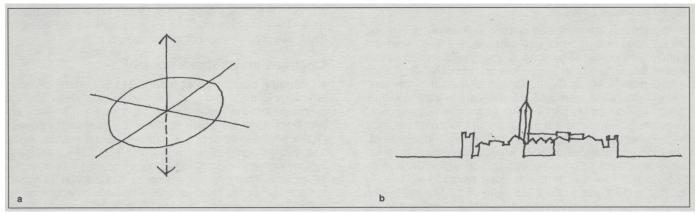


Fig. 1: Image of the world in arid areas (a) and the city image (b).

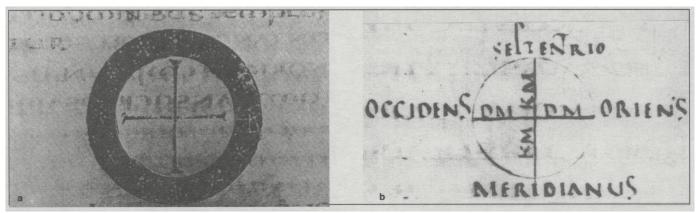


Fig. 2: Roman Templum of the sky (a) and of the earth (b). (Source: Joseph Rykwert, The Idea of a Town – The Anthropology of Urban Form in Rome, Italy and the Ancient World, London, Faber and Faber, 1976).

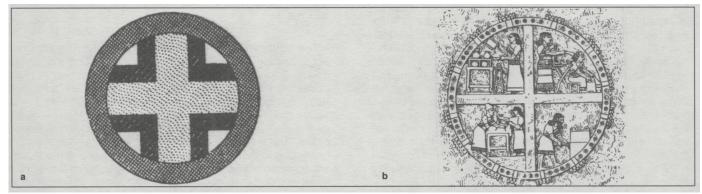


Fig. 3: The Egyptian hieroglyph meaning "city" (a) and an Assyrian relief showing city life (b). (Source: Leonardo Benevolo, The History of the City, London, Scolar, 1980).

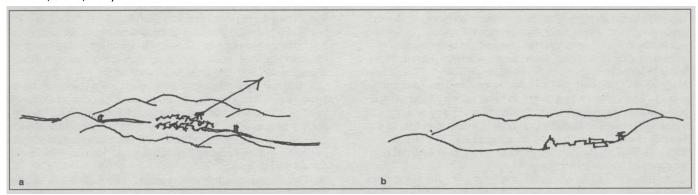


Fig. 4: The Japanese image of the world (a) and the image of the settlement (b) as a copy of (a).

Ekistics, 415, July/August 2002 416, September/October 2002 417, November/December 2002 193

briefly discussed above.

- Symbiosis of man and nature Satoyama (village mountains) rice paddies and settlements: The belief that humans are protected by surrounding mountains and forests makes them rely on Nature. Nature and Man co-exist in such environments. Mountains and forests - named "Satoyama" (village mountain) - brought rich presents to the inhabitant; they provided food like bamboo shoots or mushrooms and wild vegetables, timber and other materials to construct their houses, various other utensils for their living and, above all, firewood and charcoal as their energy sources, and sometimes arms such as bows, arrows and spears. Furthermore "Satoyama" provides fertilizers for rice paddies, usually located in the areas on the lower sides of the village. Rotten leaves and organically rich soil gathered from "Satoyama" are excellent fertilizers for rice paddies. Besides this, the villages used as fertilizers their various wastes including food remains, bath drainage and even their excretion to the extent that no more waste existed. In other words, in the way of life of the traditional Japanese human settlements one witnesses a complete ecological cycle governing the relationship between people, villages, paddy fields, mountains and forests. It can be said that people — villagers and even city dwellers — had coexisted in harmony with Nature.
- Townscape of Japanese traditional cities: Reflecting the typical Japanese model of human settlements, most traditional villages, towns and cities were surrounded by nearby or far-off forests and mountains. In the towns there were many woods on river banks, in temples, in shrines and gardens for every house, especially in the houses of the Bushi-class.

Western missionaries in the 17th century reported that even Edo, which was considered the largest city in the world at that time, was "A Capital in Forests." Many Western observers who visited Japan around the end of the 19th century – after the opening of the country – also wrote that the concept of city in Japan had been completely different from the one which they had known in the Western world, the Middle East, India and China. In the huge city, there were no big monumental buildings, but plenty of parks, gardens and woods. People liked to spend time in such natural surroundings during holidays – of which they had plenty. Although there is some tendency for growth in a vertical direction, such as in the case of feudal castle towns like Hikone, in the design of the townscape the intentions for horizontal expansion overwhelmingly prevailed – another difference of the Japanese city from most of the cities in other parts of the world, in the Eurasian continent.

These result from the perceptual model of Japanese settlements.

Modernization and Westernization

After the Meiji Revolution in 1867, Japan tried furiously to modernize and Westernize its society. Industrialization, population increase and accompanying urbanization at large scales have tremendously changed human settlements in Japan, especially in large metropolitan areas such as Tokyo, Osaka and Nagoya. In the metropolitan areas nature has been minimized. The vacant lots with green have been utilized to facilitate various usages of metropolitan life. The townscape of these large cities is becoming almost identical with that of the Western world. Photographs of many places in the Tokyo of today cannot be distinguished by ordinary people from photographs of New York or Berlin.

In the world of globalization the unique characteristics of the Japanese settlements and the identity that we have described above are precious for the Japanese themselves as they reflect the rare harmony between climate, nature, history and culture that was achieved by Japan in the not too distant past. They are also precious for the people in the world, as Japanese conditions enrich global cultural assets.

Changes in Japanese society

• Changing population structure: The population of Japan will reach its maximum of 127 million in 2006. After that it is estimated that the population will be decreasing to reach approximately half the above figure in 100 years, if the present (2000) birth rate trend of 1.35 children per female continues. The overall aging of the population has been constantly increasing and is expected to be advancing further in the future, as in other developed nations. The average life expectancy in Japan has been recently estimated by American researchers to be over 90 years in 2050. In other words, Japan will become a society with the highest percentage of elderly population in the world since the average life expectancy is the highest in the world. The elderly who are over 65 will be 25 percent of the total population in less than 10 years, and this number is projected to reach 33 percent in the year 2050.

The number of single-person families – at present about a quarter of the total number of families – is expected to reach a little less than one third of the total number of families in 20 years' time. In other words the great number of elderly and lonely people is estimated to be one of the most serious problems in Japan in the near future. Japanese cities are not at all prepared for such conditions.

The populations in the central districts of metropolitan regions are slightly recovering in various areas depending on the policies adopted by local governments. Some symptoms are appearing that suburbanization could possibly be at an end due to the increase of aged people and one-person households as well as the increasing number of adult working women and the decreasing number of children. These factors are having hampering effects in diffusing population into the suburbs.

The central cities again seem to be gaining in importance.

• The influence of Information Technology: The influence of Information Technology (IT) on Japanese society is not yet clearly apparent. For example, the phenomenon of male adults working at home in remote natural places, detached from their company's headquarters in the city, that Alvin Toffler suggested in his book *The Third Wave* (William Morrow, 1980) as the electronic cottage, is manifested only in very limited cases. The number of women – many of whom have to stay at home due to their role as housewives and also some elderly retired persons who have started working at home through the Internet using their houses as SOHO (Small Offices, Home Offices) – is not very large either.

The impact of Information Technology becomes obvious in individualizing or personalizing tendencies witnessed in families. The use of personalized telephone, television, the Internet and other media seems to be promoting individualization. Each family member tends towards a pattern of life relatively independent from each other and connecting through personalizing media with the outside world and the set of diversified ties dictated by their personal interests. On the other hand, family ties — once strong in Japan — are becoming relatively looser and weaker. In this emerging Information Technology society people act individually according to their personal interests and develop relations rather freely, being released from the roles that they were expected to perform in their work-places and at home.

The increase in Internet relations and personalized telephones are accompanied by a rise in the number of physical trips. In other words, non face-to-face communications through the Internet and other personalized media enhance face-to-

> Ekistics, 415, July/August 2002 416, September/October 2002 417. November/December 2002

face communications considerably – a conclusion contrary to the one reached by Toffler and his "electronic cottages." From this we may deduce that in Japan the popularization of the Internet will not necessarily diffuse population, a tendency which acts as a further hampering factor for suburbanization.

• Need for second homes and the creation of a Garden Megalopolis: In modern Japanese cities the cultural tradition to live within Nature has been continuously oppressed by ever increasing densities. For most inhabitants, possessing a house with a garden is no longer possible. The natural surroundings outside their homes are disappearing as cities develop. The lack of opportunities for contact with Nature may have produced pathological problems especially among children and elderly persons. In any future effort to re-make our environment, some serious consideration of the need to bring Nature back into the cities must take priority.

In the large metropolitan areas of Japan, people live in rather small structures irrespectively whether they live in detached houses or in apartment buildings. It is true that, historically, we have been living in rather small houses. But the average floor area of a house in today's metropolises has become smaller or at the most almost equal to the national average a hundred years ago and comparatively lower than currently in other parts of the world.

One solution to this problem for city dwellers who cannot help having small city houses is to acquire second homes in the countryside. In this way they may enjoy life in Nature and, at the same time, contribute to the revitalization of countryside areas. This may also constitute an effective government policy both to revitalize the ailing Japanese economy and to improve the volume of carbon dioxide by keeping a huge amount of carbon in the timber used for the wooden structures of second homes.

In this way, proper city redevelopment based on the decrease in population pressure on metropolitan areas as well as on countryside development may possibly turn the Japan Megalopolis into a Garden Megalopolis and help revive the Japanese urban tradition for people to live in Nature and with Nature.

• Globalization and local identity: Globalization prevails in

every part of the world, particularly in the field of the economy. Metropolitan areas, especially their central districts, where economic wealth is produced, could not escape from it, given the severe competition witnessed worldwide. As a result, the central business districts of almost all metropolitan areas tend to become almost identical. I do not know whether economic competition will change in the future or not. What I do know is that so far large metropolitan areas in Japan or elsewhere cannot help but take such a, so to say, dictated global shape in their main parts. However, local cities can remain outside the influence of such international competition. Each has its own identity, its history, its climate and culture reflected in the life of its inhabitants. For the Japanese - and for human beings as a whole - keeping the identity of every city and the diversified wealth of the particularities of human community expression is very important. The local city should keep both its local identity and its Japanese identity which both reflect a fantastic unity and, at the same time, the rich diversity of our cultural wealth. If no action is taken, this wealth will be lost as is apparent in parts of major metropolitan areas.

Hikone

Hikone is a special case among Japanese cities due to the vivid presence of precious remains of its history. Not only can visitors to Hikone recognize what a feudal castle city in Japan was like but they can also experience it by walking through the city and feeling it with their bodies and their minds. In recent years, many people in Japan have come to realize that we are conforming too much to Western influence and losing many good aspects of our values, and many show more awareness concerning the importance of our own cultural identity.

- Strategic location from ancient times: Hikone has been located at a point of strategic importance throughout history. Its site in the Kinai district was:
- adjacent to the capital areas where Nara, Kyoto and other short-lived capital cities had been located from around the end of the second century AD to 1868; and,
- on a key point along the main routes to the northern parts of Japan and the coastal areas on the Japan Sea side (fig. 5).

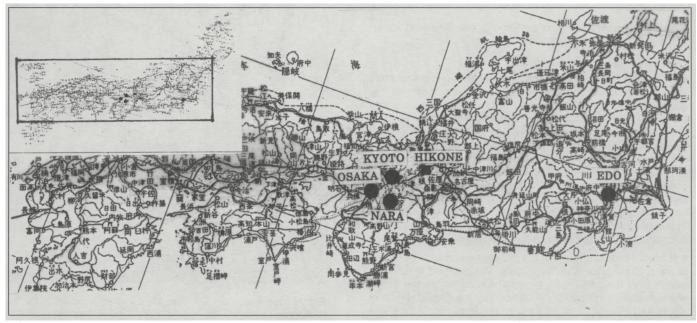


Fig. 5: Japan – Location of Hikone in connection with the location of former capital cities (Edo, Kyoto, Nara, Osaka) from ancient times to the 19th century and with the main sea and land routes.

Ekistics, 415, July/August 2002

416, September/October 2002 417. November/December 2002 195

Lake Biwa stretching alongside Hikone was an excellent waterway and gateway leading to the capital areas. The region around Hikone kept watch and checked on transportation in and out of the waterway which then took the only effective land route heading towards the northern part of the country (fig. 6).

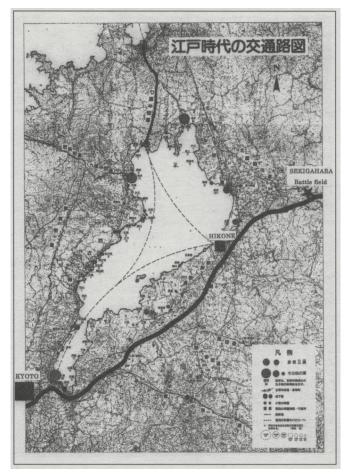


Fig. 6: Location of Hikone in connection with Lake Biwa and the main transportation routes (19th century).

Because of this location the area played an important role in the history of the country, especially after the medieval feudal period. From 1582 onwards, the area was governed by the powerful feudal lord Hideyoshi who had finally brought the entire country under his rule. His generals occupied Sawayama Castle in turn until Hideyoshi's most powerful general Ishida Mitunari finally occupied the castle. After the death of Hideyoshi, Mitunari who ruled the western half of the then divided Japan fought in 1600 against the powerful Tokugawa leyasu who ruled the eastern part of the country and lost the battle of Sekigahara — in the gateway area near Hikone. Tokygawa had established his headquarters, the Tokugawa Shogunate, in Edo — which is today's Tokyo.

• A feudal castle city: After the decisive war was over, li, one of the highest officers of Togugawa, was ordered to rule and watch over the previously enemy regions within the entire western part of the country – particularly the capital region of Kyoto and Hikone. Ii moved the castle from Sawayama to a nearby site Hikone along Lake Biwa and in 1603 he started constructing the city and the castle. In 1695 the population of

Hikone was estimated to be a little over 36,000, of which the Busi (Samurai) class consisted of around 20,000. At that time, the population of the area around Hikone ruled by li was over 250,000. Between the 15th and 19th centuries, the surrounding villages did not witness much change either in terms of built-up area or of population.

The city consisted of the castle, the residences for the lord, governing offices, a detached residence for lord li facing Biwa Lake, the Bushi districts, and the Chonin (merchants and craftsmen) districts. Triple moats surrounded the city and the castle. The lake, the marshland and the river acted as additional defensive barriers for the city (fig. 7).

With regard to the overall townscape, one could recognize:

- In the Chonin districts, rows of wooden houses for merchants and craftsmen consisting of only a ground floor structure usually accompanied by attics for servants and storage;
- In the districts of the Bushi class, houses, usually detached, surrounded by green areas and gardens, all within a green city full of trees and woods, not only because of the gardens of the Bushi residents but also because many temples and Shinto shrines had considerable gardens with plenty of trees

 even the row houses of merchants and craftsmen had comparatively smaller gardens in their backyards.

Furthermore, at the northern end of the city there were the castle hills covered with green, coupled with a range of mountains in the east. To the south, the city was demarcated by a river on whose banks rows of huge trees had been planted. To the west, facing Lake Biwa, there would have been huge bushes – as indicated by the rest of today's lake shores.

To conclude, in the feudal period, vegetation prevailed within the city of Hikone and its surroundings as in other historical Japanese cities.

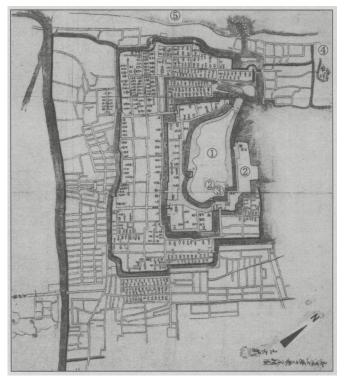


Fig. 7: Hikone around 1820 – The city consisted of the castle (1), the residences for the lord (2), governing offices (3), a detached residence for the lord (4) facing Lake Biwa (5), the Bushi districts, and the Chonin districts

Ekistics, 415, July/August 2002

416, September/October 2002

417, November/December 2002

Present problems of Hikone

● Townscape after the Meiji Revolution: After this revolution Japan tried to import Western ideas and technologies. Urbanization started attracting population from rural areas to several metropolises such as Tokyo, Osaka, Nagoya, Hiroshima, Kitakyusyu and others.

Hikone, due to its inland location, its limited population and the lack of land in its hinterland, did not fulfil the conditions needed to become a center of modern industry. It has remained until today a local center with:

- 14,000 inhabitants in the old quarters;
- 40,000 including newly developed suburbs;
- 100,000 within the city boundaries which include many settlements in rural areas continuing from olden times; and,
- 300,000 including its hinterland population which is gradually declining due to the flow of people towards metropolitan regions.

Nevertheless, even in Hikone many modern reinforced con-

crete constructions – factories such as silk spinning and international-style office buildings – sprang up after the Meiji revolution. Multi-storey white box-like buildings with flat roofs have been invading and destroying many districts of old traditional two-storey wooden houses; ugly electric poles and wires everywhere in the city skyline have been destroying the traditional harmony of Japanese cities and towns. Hikone could not escape this modernizing process that has forced – through modern Western-type invasions – huge changes upon the traditional Japanese cities.

Compared to other Japanese cities, however, Hikone has considerable remains from the past which have escaped total destruction by modern forces, particularly some townscape elements of the feudal castle city such as the castle itself – which is a National Treasure – the castle mountain, some of the moats (although most of the outer ones have been filled in to become streets for cars), some of the traditional street patterns and a limited number of old houses (for the lord, the Bushi cast and merchants).

Original office buildings and the official residence of the



Fig. 8: Partial view of central Hikone with the restored governmental facilities and official residence of the lord, the castle and Lake Biwa.

Ekistics, 415, July/August 2002

416, September/October 2002 417, November/December 2002 lord have been restored (fig. 8). Rows of houses on both sides of some widened streets for cars have been restored to the traditional wooden style of two-storeyed houses (fig. 9).

Hikone is one of the few settlements in Japan which possess considerable sets of remains from the traditional "feudal castle city." There is still, however, a lot of confusion as to the action needed in order to re-establish, in a most effective way, the townscape of the original "feudal castle city." Due to the mixture of modern multi-storey apartment buildings, office buildings and shopping buildings with the rows of old wooden houses and remains of the castle area, this original townscape has been diluted considerably.

Hikone's most imminent problem is to reconstruct its overall townscape to fit the remains of the old feudal city. To return to the past and reconstruct the city as it was is out of the question. But there is no doubt that we can – and we must try to – avoid the confusing present, secure a good living environment and re-establish a new townscape in harmony with the remains of the past.

• The need for street life and gathering places: We have seen that living conditions in feudal settlements like Hikone, rich in green areas inside the built-up area and in its surroundings, were considerably good.

In traditional towns, streets were full of pedestrians with an active human life – chatting among the people within a neigh-

borhood, children playing, enjoying the outdoor cool of the evening on hot summer nights before going to sleep, performances by a variety of petty pedlars, travelling salesmen and repairmen. Streets were lively outdoor "living rooms" with all sorts of socializing opportunities. A considerable portion of daily life took place in the street. Today all these activities have been wiped from the streets by cars and changing life patterns. The once pedestrian-friendly streets have been totally occupied by cars, severely worsening in many ways living conditions in the town. Fortunately, some of the temples and Shinto shrines that are still available in the city, together with the castle mountain and other castle areas, can provide resting places for citizens. But they are not enough, either in number or in distribution and proximity to residences so as to replace the traditional outdoor living space on the streets just outside each house.

We have to be prepared to provide substitutes for outside neighborhood living and for use of the streets. Building outdoor places for people to get together is of extreme importance for Japan as a whole and for Hikone, more particularly, given the fact that the number of lonely people are expected to increase rather drastically and the family structure is becoming weaker and individualizing. Outdoor meeting places such as small pocket parks located near residential areas of the city are absolutely essential for the mental health of citizens.

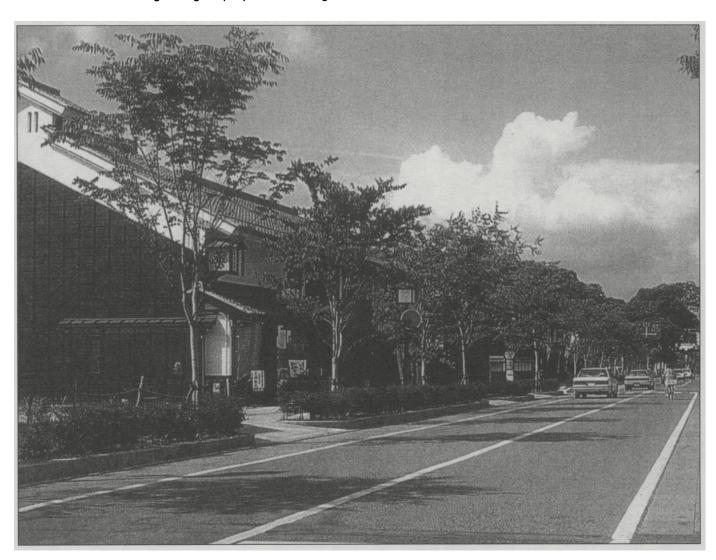


Fig. 9: Hikone – Widened main street leading to the castle; the wooden buildings on both sides of the street are built in traditional style.

Ekistics, 415, July/August 2002 416, September/October 2002

416, September/October 2002 417. November/December 2002

198

• Narrow streets and lack of parking spaces in the old quarters: These constitute additional weak points in the structure and functions of the Hikone of today, similar to many traditional towns in the world. The difficult access to the central part of the city and to the shopping facilities traditionally concentrated there, has resulted in the attraction of people from surrounding areas to some new shopping centers with large parking lots on the outskirts of the city. Further to this basic economic problem, narrow streets and the lack of parking spaces in the central part of the city result in worsening the overall living conditions of citizens.

Authorities and inhabitants are certain that something has to be done about these problems but they are also aware of the dilemmas involved in an action plan implemented in the past for the widening of some streets (fig. 9). But action was restricted only to the main streets: any more extensive operations would have resulted in the destruction or removal of rare and precious old wooden houses.

• Economic plight and future potential: The current economic plight that characterizes Hikone limits its chances for renovation which is badly needed and the prospects for the revitalization of its economy call for careful and realistic consideration of the potential that its rare - but still limited resources provide. The attraction of forceful industries, which would replace its once prospering and now disappearing spinning industry and would revitalize the city's economy, is rather improbable. On the other hand, central districts near the castle with their decreasing and aging population are not very active. In fact the limited size of the city and its small hinterland population of about 300,000 cannot expect much from industry and commercial activity.

The only case of successful intervention and relative prosperity due to the attraction of tourists is a small area near the castle where the streets were recently widened and houses as well as shops were restored in traditional style (fig. 9) - an effort that was made possible due to financial assistance from the central government.

The above makes it clear that further to the improvement of its overall urban functioning and the commercial activities concerning the city itself and its rather small hinterland, the future of Hikone's economic prosperity would depend on enlarging its cultural tourism activities based on the wealth of its historical assets that have not yet been sufficiently explored. When the effort for re-establishing more clearly the identity of Hikone as a special "feudal castle city" succeeds, there is no doubt that cultural tourism to the area will greatly increase due to the expected increase in public awareness about the need for cultural identity and the values involved in Japanese culture.

Furthermore the two universities already existing in the area could and should be considered as important sources for - and effective contribution to - revitalizing the city which until now has not been the case.

• Landscape of Hikone's surrounding areas: In the fertile countryside areas surrounding Hikone, the inhabitants of many compact settlements that have existed there from ancient times no longer live on rice cultivation. Only a small portion of the village families depend on agriculture in general. Income from agriculture alone is usually not enough to support family life except in a few exceptional cases. All or some members of the remaining families are white-collar workers or salesmen in Hikone, in Ohtsu - the prefecture capital - or even in Kyoto, commuting from the villages where they continue to stay on land inherited from their ancestors. This means that they may easily sell the land to buyers from outside and, in this way, disturb the landscape of the countryside.

Until now no major changes have taken place in these villages since they are not in the direct vicinity of the big city and not at a distance permitting daily commuting to work in big metropolitan areas such as Osaka or Nagoya. But the area will soon be disturbed by an anticipated major influx of people from metropolitan areas seeking to live in nature and building second homes there.

A successful future for Hikone

What could be considered as success for Hikone in the 21st century? I think the answer should be in achieving positive results in the following five issues: Townscape, Transportation, Economy, Social structure, and Sustainability.

- Townscape: Hikone must be healed from confusing disturbances. A major effort is needed toward re-establishing clearly its identity and image of an urban Japanese settlement with proper characteristics in harmony with the townscape of the traditional feudal castle city. Hikone could achieve this by keeping, restoring and enhancing its historic remains, and by adjusting the design of newly constructed residences and other buildings as well as its future development in style, height and volume, in harmony with the castle city environment, increasing at the same time the green element in the city according to the practice followed by the traditional Japanese
- Transportation: A shuttle bus system connecting large parking lots at the east and west end of the old part of the city would keep vehicles away from the old parts of the city as much as possible (fig. 10), leaving streets more free for pedestrians, keeping the townscape of the old city less disturbed and contributing to the creation of a better living environment.

Further to the above, the shuttle bus system will contribute to the increase of people from the surrounding areas going shopping in Hikone, and contribute considerably to the eco-

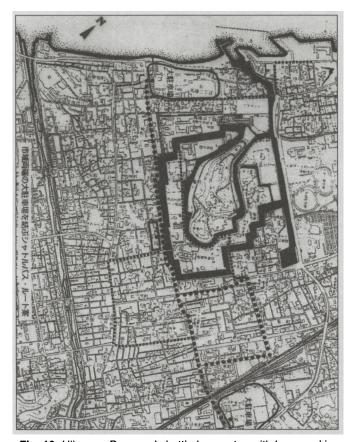


Fig. 10: Hikone - Proposed shuttle bus routes with large parking spaces on both sides of the old quarter.

416, September/October 2002 417, November/December 2002

Ekistics, 415, July/August 2002 199 nomic revival of the central city. The number of tourists will also increase since the large-scale parking lots will make access to Hikone and the surrounding rich historical wealth easier for small groups of visitors.

- Economy: This directly depends on the re-establishing of Hikone's identity as a traditional castle town. It has the potential to become a powerful means for the revitalization of the economy of the city as a whole and of the central district through the attraction of cultural tourism, not only to Hikone itself but also to its neighboring areas, where a number of other historical cities and a variety of sites exist and where the beauty of villages and the traditional harmony between nature and built-up areas are still respected. Using these assets, diversified cultural tourism would be possible throughout the region making Hikone its core. Besides visiting historical sites, experiencing nature and village life would be an attractive alternative for an ever increasing number of Japanese urban travellers.
- Social structure: The city must be prepared for the expected social changes to which we have referred in earlier parts of this paper. The most important change is the increase in the number of people who live alone a reality reflecting the aging of the population and the weakening of family bonds. The city has not been prepared for such changes, since the changes have come so rapidly. The creation of small pocket parks and walking paths with trees and the increase of green areas in all parts of the city will facilitate lonely people to socialize and keep each other company and, at the same time, it will contribute to the overall effort of Hikone to regain its traditional Japanese identity, as we have already stated earlier in this paper.

Besides these "hardware" recommendations, there are many other kinds of "software" ways and means which would improve social intercourse. Conscious and systematic action towards achieving this goal is urgently needed.

- Sustainability: Today's cities must be sustainable as much as possible, and among the prerequisites for achieving this sustainability are:
- keeping urban activity areas compact in terms of both size and density; and,
- rendering today's systems similar to those of the traditional recycling society.

Concerning the first point, I would like to stress that Japanese society has lived at high densities in a very labor-intensive way on its arable land – relatively small in area if compared with its population. The high productivity per unit of its rice paddies cultivation has made this possible. This high intensity in the use of land since ancient times is reflected in the strictly limited size of village areas which was dictated by the need not to decrease the size of paddy fields.

Although today suburbanization has invaded the cultivated areas in the vicinity of the city, on the contrary in the country-side regulations concerning change in land use for residential and industrial development are still rather strict. But the invading forces are so powerful that, in one way or another, they will gradually advance even in the countryside. One such pressure will come from city dwellers seeking second homes to live with nature – which is not possible in the globalized metropolitan region.

One of the problems to be solved, related to this unavoidable pressure, is to examine how to allow such uses for new-comers and, at the same time, keep inhabited areas compact. By limiting the construction of new houses in the old inhabited areas, this seems quite realistic and in principle feasible, particularly in view of the fact that the population is expected to decrease drastically.

Another problem is to encourage good relations between old residents and the newcomers who may not be there permanently but periodically.

In any case, it becomes clear that we have to study, define and establish effective ways to keep the high density living prevailing in Japan from ancient times even into the future by restricting the extension of urban uses into agricultural land and in the countryside. This is one of the powerful ways to establish and keep sustainability.

The second prerequisite for a sustainable city is the development of a recycling system society. Traditional villages were based on complete recycling systems, established even in the relation between villages and cities. It is of course not possible to go back to the ancient way of life. But we have to construct sustainable systems in today's city and its surroundings, following the principles on which the traditional systems were based.

In olden times people from the surrounding villages would come to Hikone to sell vegetables or other crops and buy various city goods to take back to their village. But they would also take city dwellers' excretion and other wastes to use them as fertilizers. In the past when small-scale economy prevailed, there were plenty of direct interactions between Hikone and the surrounding villages — a reality that has constantly decreased and is tending to disappear due to today's large-scale economy even in terms of agricultural products. In the Japan of today, agricultural goods are only available through wholesale markets and supermarkets based on large-scale systematic distribution.

On the other hand, there are firm indications that we may soon witness drastic changes in agriculture, particularly when people grow vegetables and other agricultural produce mainly for pleasure as part of their hobbies. This is already happening on the initiative of older people who have retired, live in rural areas and are engaged in growing vegetables at a small scale, not only as a hobby but also for their own family's consumption - or for sharing with neighbors. This phenomenon may increase considerably if and when many more city dwellers flow into the countryside to enjoy agricultural life on a part-time basis. The increased volume of such products - vegetables and other crops - could be sold by the producers themselves at small local markets, for example in the open-air markets to be created in the old quarters of Hikone, helping in this way to revive the local economy by the introduction of ecological products which become both desirable and affordable for people who will tend to become more affluent. We do have such experiences internationally, but the examples in Japan are still very rare.

Relevant to the issue of the need for a recycling system society is the example of timber used for the construction of houses. In the Japan of today, we have been building two times more houses per population unit than the USA or Europe and because of prices we have been using imported timber. Furthermore, the wooden houses that were built after World War II in Japan have a lifespan of around only 30 years, while the life of those built in the USA and Europe during the same period is 100 years or more. This typical scrap and build process which has continued until now may be due to the poor quality materials used, the small floor area per unit and the rapid changes in lifestyle, reflecting relative poverty during and after the war as well as a huge urbanization pressure.

With the increasing affluence in Japan, new houses are gradually becoming larger and better quality. Recently, urged by the need for change in the economic structure and sustainability, people are becoming aware of the necessity to use locally made timber materials for the construction of their own houses even if they are more expensive than the imported

Ekistics, 415, July/August 2002 416, September/October 2002 417, November/December 2002 ones, and to try to prolong the lifespan of their houses to 100 years – three times the current one. Besides this, people have started to try many possible ways to increase and improve conditions of sustainability, by reducing, for example, the amounts of home waste and energy consumption with higher capacity insulation technology.

The promotion of local economy, recycling and sustainability of the environment in Hikone and its broader area would constitute important conditions for the success of the city in the 21st century.

Preservation of rural settlements: The many small – once rural – settlements in the countryside surrounding Hikone will have to be kept in such a way that their landscape and villagescape embody and extend the traditional Japanese identity. In this way, the area together with Hikone itself will be an example of the way, I believe, we should remodel today's rather tainted settlements within the framework of a more purified

Japanese Garden Megalopolis – probably with the exception of the central portions of metropolitan areas which will tend towards an internationally identical townscape and structure, deriving from the severe global economic competition.

Hikone and its surrounding areas will be one part of the Japanese Garden Megalopolis where people will live in nature and co-exist with nature – a mode of life reflecting the traditional Japanese landscape and structure of settlements. In this Hikone will also contribute to establishing sustainability at the large scale.

Notes

- 1. Christian Norberg-Schulz, *Il Mondo dell' Architettura* (Milan, Edizioni Electa, 1986). Taken from the Japanese edition.
- Mircea Eliade, Das Heilige und das Profane Vom Wesen des Religiösen (Hamburg, Rowohlt, 1957). Taken from the Japanese adition.