

# AQUAPOLIS

No. 2  
International  
Conference  
of Aquapolises

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## Through Creation of "Aquapolis," Making Osaka an "International Hub of Human Exchange"

**Takafumi Isomura, Mayor of Osaka, who took office in December last year, will promote urban planning aimed at creating an Osaka that is to be an international hub of human exchange. Taking "Aquapolis" as one of the key words in town planning, Mayor Isomura revealed his vision of creating a city that is open to the world.**



**Personal Profile of  
Mayor Takafumi Isomura of Osaka City**

Born in Osaka City, 1930. Graduated in 1954 from Osaka City University Faculty of Economics; obtained his master's degree from the same university in 1956. Studied as a Fulbright Scholar at Johns Hopkins University Graduate School in the United States. After returning to Osaka, completed the doctorate course at Osaka City University in 1959, and was appointed there as research assistant. In 1972, obtained his Ph.D. in Economics with his thesis "Logic of Price Fluctuation." In 1975, became Professor of Osaka City University; was made Dean of the Faculty of Economics in 1982. In 1983, assumed office as Director of the Academic Extension Center of said university. In 1990, became Deputy Mayor of Osaka City; was elected the 16th Mayor of Osaka in December last year.

### Creation of Urban Space Open to Global Citizens

Osaka is the oldest city in Japan. From the ancient days when it was known as "Naniwanotsu," it has been an international city open to the world, receiving the influx of various people, cultures, and goods, and fostering their development. Also a city of ordinary citizens, Osaka is free of formality and authority, with its fabric strongly supported by its "townspeople."

I believe that the next generation of Osaka City's urban planning should aim at creating an international city that is a focal point of human exchange. By capitalizing on Osaka's international strength and excellence at harmonious fusion, fostered since ancient times, the new century should see Osaka become a city open to all "global citizens"—where people from the world over, of different nationalities, races, and religions, will come together and engage in exchange activities on an equal footing. This would be the city of Osaka that people find attractive. We shall aim at creating such a lively urban landscape, that is full of vitality.

In another and quite different face, Osaka was once called the "City of Smoke," because it suffered from pollution. Local governments focused their efforts and overcame those problems. In view of this valuable experience, Osaka has a role to play in demonstrating to the world a way of creating a city that can coexist in harmony with nature while maintaining and increasing its vitality, without becoming prey to human arrogance toward nature.

### "Aquapolis"—Key Word in Creating an International Hub of Human Exchange

One of the key words in firming these visions into actual urban planning is the word "Aquapolis." The 2008 Olympics, which Osaka is bidding to host, will be

held on an artificial island, where is envisaged a new urban environment of the "aquapolis." This will be the first such attempt in the world. The Osaka Bay Area will also be the location for new centers of economic exchange, a gateway of international business, as well as for leisure activities and recreational resorts. In the waterfront areas of the rivers that variously traverse the city, environments will be created for Osaka citizens, as well as Japanese and foreign visitors alike, to relax and enjoy the tranquility that water offers. Through the creation of an aquapolis, Osaka aims at becoming an international hub of human exchange, open widely to the world.

### International Conference of Aquapolises, Creating Urban Civilization for the Next Generation and Contributing to the Benefit of the World

The International Conference of Aquapolises, first proposed by the City of Osaka, is a body that shares superb information on ideas, methods, technology, and systems concerning urban creation (renewal) in the aquapolises of the world, with the aim of setting an example to the world of creating cities of distinctive identities. The exchanges through the conferences generate further new exchanges and wisdom, which serves as a bond between peoples and cities, resulting in the creation of a new urban civilization. We believe that by means of this conference, the City of Osaka will contribute to the world through the creation of attractive aquapolises of strong individuality, by spearheading the urban civilization of the new generation.

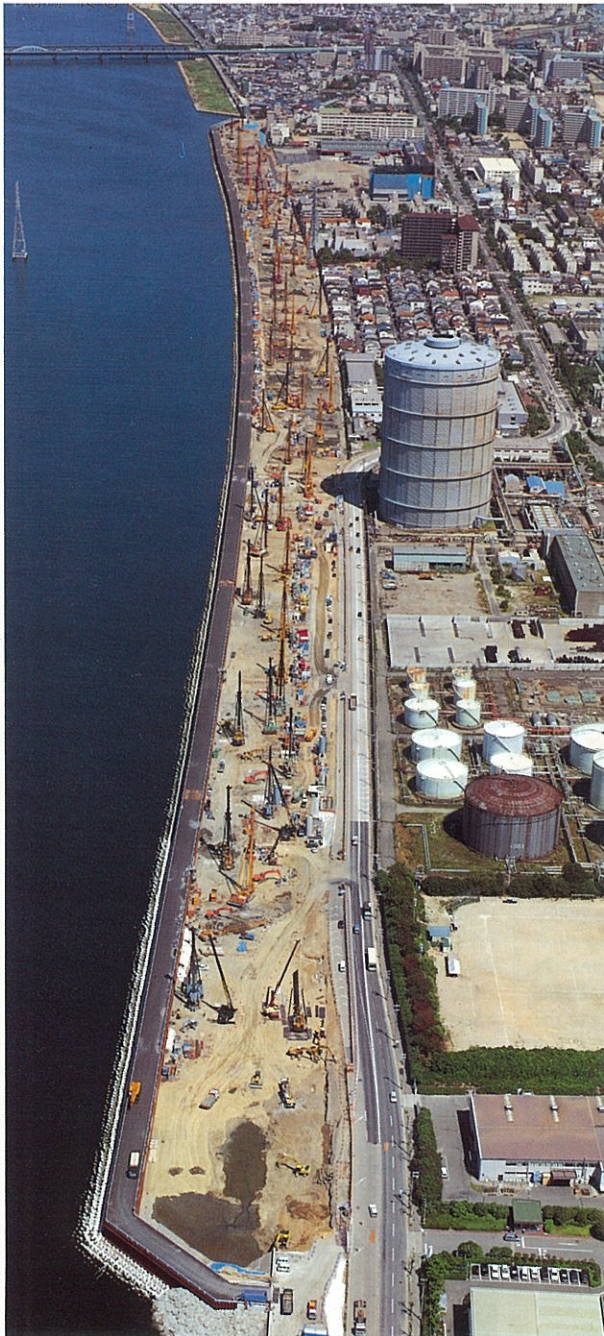
(Extract from interview)



The Nakanoshima Sandbank and the Okawa River, typifying the Aquapolis of Osaka

**REPORT**  
The Great  
Hanshin-Awaji  
Earthquake

# The Roles of Urban “Water” and “Greenery” Lessons of the Great Hanshin-Awaji Earthquake, Directly Above the Epicenter



Ground improvement under way at the mouth of the Yodo River (September, 1995)

At 5:46 a.m. on January 17, 1995, the Hanshin region in Japan was struck by an intense earthquake, magnitude 7.2 on the open-ended Richter scale. The epicenter was the Nojima Dislocation, 14 km directly below the northern part of Awaji Island. Due to the resulting and unprecedented catastrophe, the earthquake has come to be called the “Great Hanshin-Awaji Earthquake.”

The damaged area extended from Akashi City to Kobe City, Takarazuka City, and Osaka City. In downtown Kobe, a great many buildings and houses collapsed. Many of the remaining houses were destroyed in ensuing fires. In one day, Kobe was destroyed almost entirely. In this disaster, 6,308 people were killed, 2 people are still missing, and 43,177 people were injured. The quake completely collapsed about 100,000 houses, and half-destroyed about 109,000 houses. The number of fires following the quake reached 294, and the number of refugees amounted to as many as 320,000; of those, 90,000 still live in provisional housing. In addition, the quake destroyed lifelines, including water service, electricity and gas supply, and telephone lines. It also cut highways, expressways, railways and even the Sanyo Shinkansen line, which is well-known for its anti-disaster design.

As a result, the damaged area was isolated from the rest of the country. The severing of trunk roads and railways connecting Eastern and Western Japan hampered the distribution of daily necessities. Moreover, destruction of the Port of Kobe, a leading port in international

trade, caused tremendous damage to the Japanese economy. The total damage is estimated at over 10 trillion yen.

In artificial islands and other reclaimed lands in the Inland Sea coastal area, large-scale soil liquefaction occurred, in turn causing land subsidence and horizontal displacement. Damage to wharves was great, especially at the Port of Kobe, where all wharves, except for three quake-resistant berths, became useless due to land subsidence.

River embankments and their revetments were also destroyed by the earthquake. Cracks in revetments and embankment subsidence were observed at 32 points. At the mouth of the Yodo River in Osaka, Japan’s representative aquapolis, the 1,800 m long tide embankments sank and collapsed. Land subsidence reached 3 m at its deepest point. Following emergency reconstruction, full-scale reconstruction is currently under way, with completion targeted for March 1996. In this full-scale reconstruction, embankments are being made more solid and given a gentler slant. Also, the ground, especially the sand layer, is being improved so as to prevent liquefaction.

This reconstruction is being conducted as part of the City’s “super embankment” plan, which includes the construction of 300-m-wide embankments (super embankments), and housing and parks on the embankments. The major objectives of the plan are the construction of anti-disaster embankments and the creation of beautiful riverside landscapes.



▲ The embankment at the mouth of the Yodo River; collapsed portion 1800 m (January 17, 1995)



◀ Temporarily reconstructed embankments (June 1995)

▼ Illustration of the "super embankments"

Lessons of the Great Hanshin-Awaji Earthquake concern not just ports and embankments, but also urban "water" and "greenery." For instance, river and sea water was not fully utilized for fire-fighting when water service was cut. The shortage of potable water could have been eased if there were more wells. However, many wells in urban areas have been filled as a result of urbanization. Also, the spread of fires could have been prevented if there were more roadside trees and green belts.



Trees prevented the fire from spreading to adjacent houses.



Based on these bitter experiences, Osaka City intends to adopt a new regional anti-disaster plan, aimed at creating a "Safe Osaka City." From the earthquake, the City learned that urban water and greenery not only create a pleasant and comfortable environment, they play important roles in protecting residents from disaster. With this in mind, the City promotes redevelopment programs, under the slogan "Osaka Friendly to Citizens and Visitors."

\* On this occasion, Osaka City would like to thank many overseas cities and their citizens for relief goods, inquiries and encouragement, which greatly helped and encouraged the earthquake victims.

\* Figures are based on the Dec. 27 announcement of the Fire Defence Agency, Ministry of Home Affairs.

From the  
Secretariat

# The APEC Osaka Meetings Promoting Osaka and the Kansai Region to the World



Representatives of the nations/regions that participated in the APEC Osaka Meetings

From November 16 to 18, 1995, the Osaka APEC (Asia Pacific Economic Cooperation) Meetings were held in Osaka City, the largest international convention ever held in the Kansai region. The representatives of 18 countries and regions participated in the ministerial meetings and informal leaders' meetings. The "Declaration for Action" and the "Action Agenda" adopted by leaders manifested trade and investment liberalization principles and implementation procedures, respectively.

For the Osaka Meetings, 10,000 government-related people and 8,500 reporters visited Osaka. The number of news articles dispatched from Osaka during the period amounted to —, having a tremendous effect in promoting Osaka and the Kansai region as an important region in Japan. To host overseas visitors and assist in conducting the APEC Meeting, the local governments and industries in the Kansai region organized the Kansai Host Council for Osaka APEC Meetings. On Internet, the Council established the Kansai Home Page, which offered information on local economy, trade, municipalities, and tourism in the region. To ensure smooth access to the page, the Council installed 200 computer terminals at the Press Center and several hotels. During the period between November 15 and 19, the Kansai Home Page was accessed by a total of 700,000 people, including those from overseas.

During the Osaka Meetings, 1,000 volunteers worked as interpreters and other staff members. To reinforce security, 25,000 police were gathered from

throughout the country. Between the meetings, leaders and their spouses were invited to a tea ceremony, the "bunraku" theater, Osaka Aquarium, and a market for residents of Osaka. Such programs were prepared to offer the visitors opportunities to experience the vitality and culture of the region. Overseas visitors who had contact with local people enjoyed their hospitality, which the City believes helped increase the number of "fans" of the City.

The success of the APEC Osaka Meetings has demonstrated to the world that Osaka can maintain "safety" and "order," which are primary conditions in hosting international events and conventions. We believe this helps promote Osaka's plan to invite G7 Summit 2000 and the Olympic Games 2008. The Japanese government's adoption of the "Initial Action" may reflect the spirit of Osaka citizens, who prefer everything to be determined and carried out promptly.

## The 3rd International Conference of Aquapolises to Be Held in Piraeus, Greece

The 3rd International Conference of Aquapolises (ICAP) will be held in Piraeus, Greece, in the fall of 1996. The schedule and themes of the Conference will be detailed in the next issue. The ICAP Secretariat hopes that the Conference will enjoy the participation of many cities.

Creating the world's leading city  
featuring "water and greenery"

### ICAP

The first ICAP was held in Osaka City in 1990, with the aim of discussing methods of creating an ideal aquapolis for the 21st century. The Conference was held as an event to celebrate the centenary of the City's municipality. The 2nd Conference was held in Shanghai, in 1993. ICAP is held every three years.

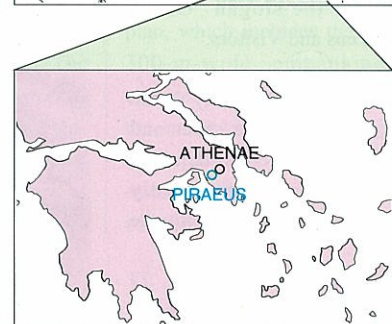
### Objectives of ICAP

To exchange information and opinions among citizens, experts, and administration staff of cities that have developed their original cultures and history featuring "water and greenery."

To create a beautiful and comfortable city, full of "water and greenery," for residents.

We at the ICAP Secretariat have moved to the address below. We always welcome your contributions and opinions on this newsletter, which will be fully reflected in the next issue.

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Location of Piraeus, Greece