

Water Caves of Northeastern District in China

- Shenyang Water Cave and Benxi Water Cave -

Soh Dea-wha^{*} · Fan Zhang-guo^{**} · Shin Dae-bong^{***}
· Bae Doo-ahn^{***} · Kim Yong-cheol^{***}

^{*}Myongji University, Korea, ^{**}Northeastern University, China,

^{***}Korea Speleology Society

1. Introduction

Caves are secret, rare, vulnerable, and nonrenewable natural resources. Caves have the recreational and tourism values, as well as caves are high places for adventure. Caves include and store plenty scientific asset, providing evidence of change in human culture and the development of our landscape as well as the climate changes for ecologists, archaeologists, paleontologists not only for speleologists. Therefore, caves possess significant natural, cultural, and social values, which deserve our arduous and consistent effort for developing proper methods to protect, conserve, and restore cave resources.

In the east part of Liaoning Province in China there are mountains and caves, of which the most famous and representative one is Benxi water cave. Benxi water cave attracts a lot of people, domestic and abroad, to visit every year. Shenyang water cave is not famous and big as Benxi water cave, but there are many tourists to visit it because it is very near the urban center of Shenyang. In the paper the geological position, natural interesting of the two caves, beautiful sceneries inside the caves and nearby the caves - are introduced.

2. Shenyang Water Cave

2.1 The geographic position and morphology of Shenyang city

Shenyang is the capital of Liaoning Province of China. It is the center of political, economic, cultural and transportation in Northeastern area of china. The position of Shenyang city in Liaoning Province is shown in figure 2-1.

In the round area of 150 km radius, Shenyang city is near by the industrial cities such as Anshan, Fushun, Benxi, Fuxin, Panjin, Liaoyang, Tieling and Dandong. Shenyang city has area of 12980 km², the urban area is 185 km². Huishan and Tianzhushan are located in the suburban, Hunhe, Liaohe and Taizihe cross the city or its suburban. Its population is 6.79 million, which include 2.54 million people in the countryside.

The city includes 5 urban districts, 4 suburban districts and 4 counties. There are several natural parks for tourism and recreation such as Shenyang Water Cave located in Sujiatun District, Shenyang Plant Garden located in Dongling District.

(1). Shenyang Plant Garden Shenyang Plant Garden is located in the eastern part of Shenyang city, and it is 10 kilometer from Shenyang center. It is a artificial planted park which exhibits 1200 kind of north plants, such as flowers and trees. We can find one of the beautiful flower gardens.[Refer to presentation Fig. 2-2(1)]

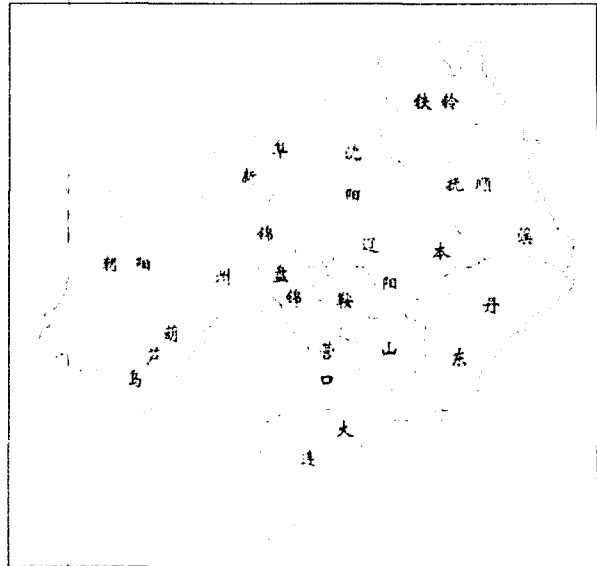


Figure 2-1. Shenyang city in Liaoning Province

(2). Qipanshan Landscape Area Qipanshan Landscape Area is located in the northeastern part of Shenyang city. It is a natural park in which some humanity and cultural sceneries were constructed. The park was named Qipanshan because there is a stone on the tope of the mountain, which looks like a chess board. The sceneries in the park are shown.[Refer to presentation Fig. 2-2(2)]

(3). Shenyang National Forest Park Shenyang National Forest Park located in Xinchengzi District, 40 kilometers from Shenyang city. It is the extension of Changbaishan. The forest covered area is over 95%. Some of the landscapes are shown.[Refer to presentation Fig. 2-2(3)]

2.2 Shenyang Water Cave

Shenyang water cave is located in Baiqingzhai county of Sujiatun district in Shenyang city, which is the important part of the Golden Triangle Forest Park. The traffic route to Shenyang water cave is very convenient way, the Shen-Ben high way passes through Baiqingzhai county. Shenyang water cave has total area of 5 square kilometers and is composed of three natural caves, Tangwang dong (King Tang Cave), Baihu tong (White Tiger Cave) and Cangjun tong (Army Stored Cave). The water cave is surrounded by mountains. Outside of the water cave there are beautiful hills and valleys, as shown in majestic figures. [Refer to presentation Fig. 2-3 and Fig. 2-4]

The tourists can heart sound from wild birds and can smell from the wild flowers. Inside the cave the water zigzagged and extended over 800 meters, as shown in figure 2-5.

There are some waterfalls like as silver curtains. The people feel cool and comfortable in thecave although it is very hot weather. Some images of Buddha were carved in the cave as shown in figure 2-6.

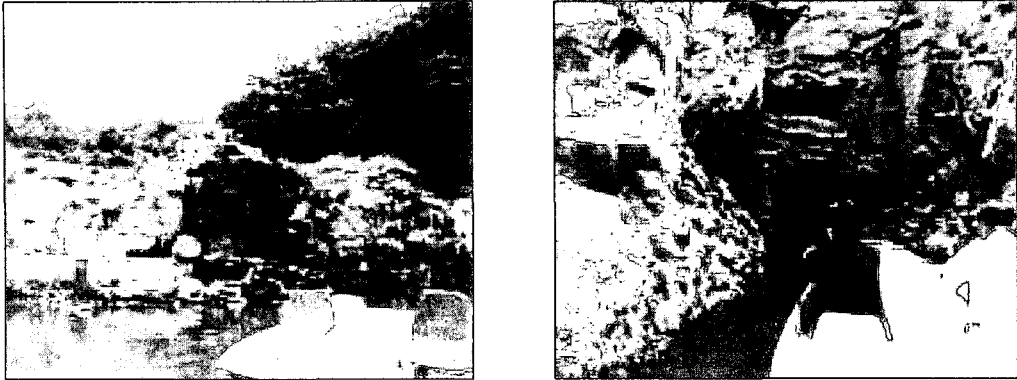


Figure 2-5. Sceneries of the water cave

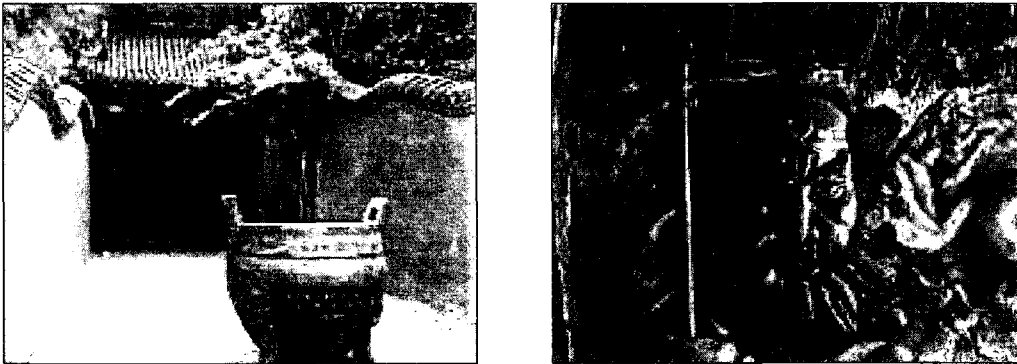


Figure 2-6. Some images of Buddha carved in the cave

3. Benxi Water Cave

3.1 Introduction to Benxi City

Benxi city is in the eastern next to Shenyang city in Liaoning Province, see figure 2-1. There are many mountains in the city and surround the city. The mountains cover 80% of the area of Benxi city. In the mountains there are plenty sources of mines and source for tourism. It has 1500 kind of wild animals and 6200 kind of wild plants.

Benxi city, as shown in figure 3-1, contents 4 districts (Pingshan, Mingshan, Xihu and Nanfen) and 2 counties (Benxi and Huanren), both are Manchu autonomous counties.

The population of Benxi city is 1.556 million, and 0.42 million are Manchu. The others of the population are Han, Hui,

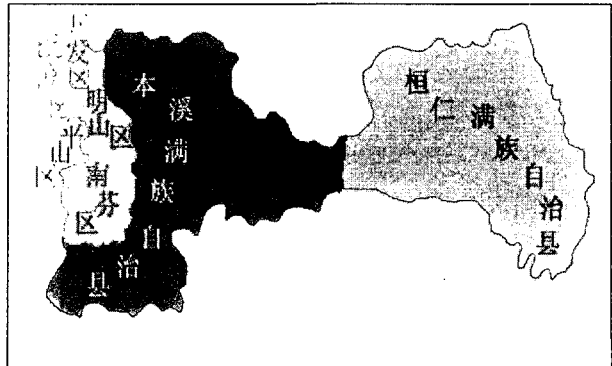


Figure 3-1. Benxi city

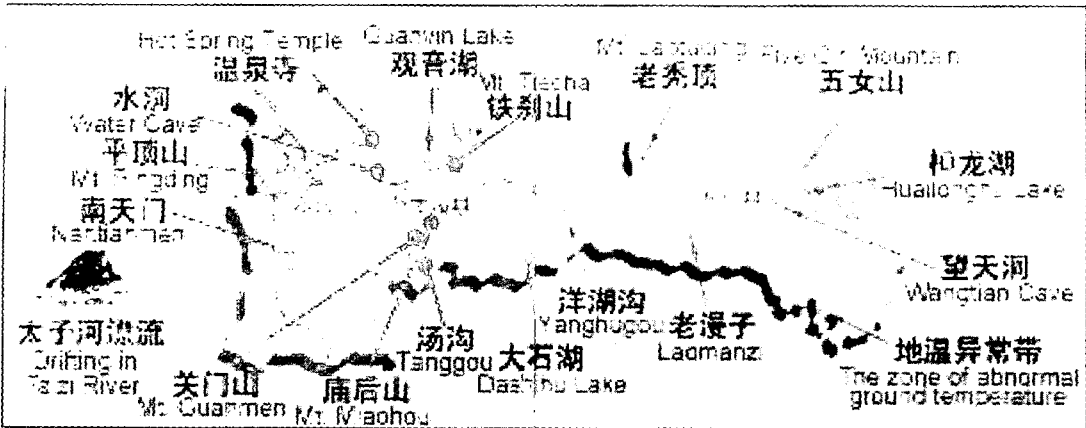


Figure 3-2. The touring spots distribution in Benxi

Korean and Mongolian. The city is an industrial city, so called a capital of coal and iron.

3.2 Sceneries in Benxi city

The most famous Benxi sceneries distribute along the Taizihe (Crown Prince River) as a ribbon shape, total area of which is about 42 square kilometers. The touring spots distributed as shown in the map of figure 3-2 and the typical four touring spots are shown as following.

- (1). Hot Spring Temple Hot Spring Temple, as a famous resort and recreation place, is located at distance of 5 kilometers to Benxi Water Cave in South, and next to Taizihe in East. The temperature of the spring water is 44 °C, which contents Calcium ions, Ca⁺⁺, and with week radiation. It has medical effects for arthritis, rheumatism, skin disease. Therefore it became a famous resort and recreation place, as shown in figure 3-3(a).



Figure 3-3(a). Hot spring temple

- (2). Guanmen Mountain (Closed Door Mountain) The mountain is 48 kilometers from Benxi city. It is called "Northeastern Small Yellow Mountain" because its beauty could be compared with famous Yellow Mountain in Anhui Province. There are two mountain peaks like as door shutters, therefore it is called Guanmen Mountain (Closed Mountain). It has 5 famous beauty, those are mountains, rivers, trees, flowers and clouds, as shown in figure 3-3(b).

- (3). Tiesha Mountain Tiesha Mountain is located in southwest part of Nan Dianzi Station of Xi-Tian

railway, Benxi city. The scenery area is several 10 kilometers long. There are many stone caves in the mountain, and the most famous cave is Ba-bao guangyun cave (Eight Treasures Cave). Since the 3rd year of Congzhen king in Ming Dynasty, Buddhist Guo Shouzhen lived in the cave and then he received disciples. He was named the ancestor of Northeastern Buddhism. In the mountain the inscriptions in Chinese letters on the stone walls can be seen every where.[Refer to presentation Fig. 3-3(c)]

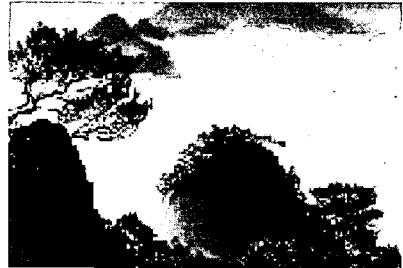


Figure 3-3(b). Guanmen Mountain

- (4). Benxi Lake It is a small lake with the area of 15 m², but it is famous as the one of Northeastern ten sceneries. It is located in the lime stone cave and is surrounded by hill peaks. In each year around to May, the water from earth surface flows into the lake and makes the lake full. At the beginning of the winter the water gradually reduces and the people can come into the cave over I kilometer. The Chihang temple was built nearby the lake in Ming Dynasty. Nowadays the Benxi lake park was constructed surround the lake for the tourists recreation and relaxation.

3.3 Benxi Water Cave

Water cave has 36,000 square meters in area and 2800 meters in length. It is located in 35 kilometers distance of northeast of Benxi city. The landscape is composed of mountain, river, cave, spring and lake, based on the cave as the main scenery. The cave is a huge and wide lime stone cave with water formed million years ago. It is the longest water cave found in the world. In the developed 3000 meters hidden river in the cave the water flows through the whole year without exhaust and clean to see the bottom. Entrance of Benxi lake in figure 3-3(d), and all the visiting scenery spots along the river are shown in figure 3-4.



Figure 3-3. (d) Benxi Lake

The entrance of the cave is the half moon shape, and after the entrance there is a big hall in which 1000 tourists can stand and stay to search the underground water cave. On the left side of the hall there is a "Harbor", the area of the lake is 1000 m², and 40 electric boats for tourists can stay in the harbor at same time. All of the sceneries are reflected in the water as a beautiful palace (see figure 3-5).

Tourists can visit through the whole cave by the electric motor-boat and watch that the cave is big, the cave is long, the cave is deep and the waterfall is so beautiful, as shown in figure 3-6.

On the right hand side of the hall is a dry cave of 300 meters in length, in which the roof has different heights and there are different caves in the cave, the stalactites grown along the cracks on the wall and the roof appear various images, they are undecorated and natural. The dry cave looks like a dragon palace and fairyland. It has already been constructed for a large museum of ancient biology.

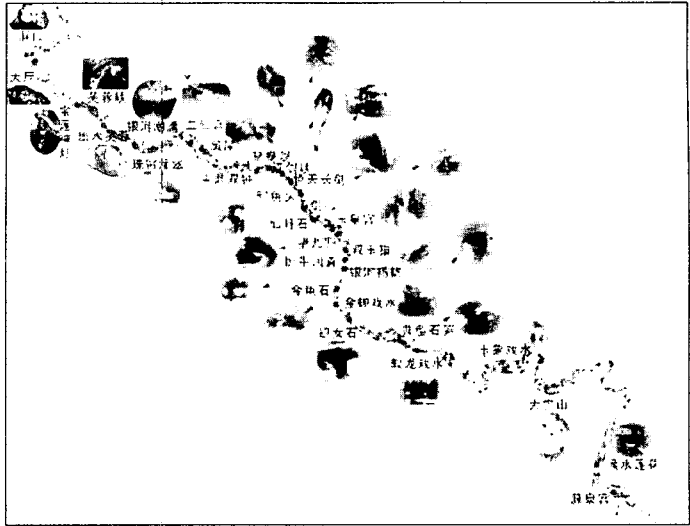


Figure 3-4. All the visiting scenery spots and sight seeing places along the river

4. Conclusions

The Benxi water cave and Shenyang water cave are much valuable for sight seeing industry with tourism and recreation of the present human beings because their natural, beautiful sceneries and environment inside the cave and the cave wall will serve to them much more benefit things of wonderful memorials and enjoyable leisure feels and rest time. The caves have also important value of scientific research for speleologists, ecologists, biologists and geologists surveying the geomor-

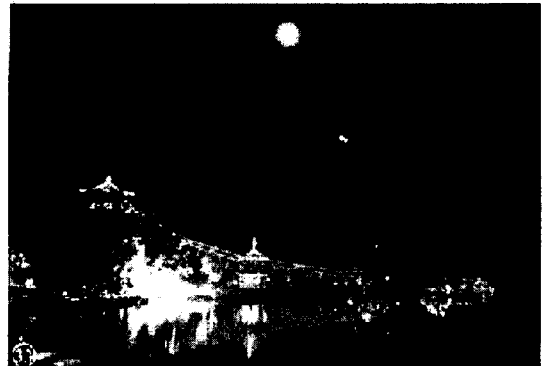


Figure 3-5. Moon light sceneries reflected in the water as a beautiful palace

phology and topography with geotechnology because the caves are formed from Karst Geological Features and there are so many stalactites from the long ago ancient times showing many kinds of useful and intellectual information. The large stone inscriptions are valuable for the archaeologists, which should understand ancient society of China. The more important thing is making good cultural exchanges and cooperation among the different nations and ethnic groups on the world to create ethnic world peace through their good impression and the surveying activity of these kinds of natural configurations of the ground under no change in long times.

For the future works, I am very pleased to introduce next topic of Chinese Artificial Caves of Ceramic or Soil Built-in "YAO-DONG in CHINA (中國窯洞)" showing the examples in next page. It will surely give you the advanced and new information for your Speleological Researches and Interests later. For the



Figure 3-6. Beautiful sceneries of stalagmite and stalactite inside cave and enjoying motor-boat driving for watching inside views of wonderful sceneries

introduction of them, the typical two photographs of "Stone Cave of Nak-Yang Dragon Gate (洛陽龍門石窟)" and "Village of Underground Artificial Cave (地下窯洞村落)" are shown in following appended figures. Usually, the peoples were living in the artificial caves or used them for living place of cavern house space from the ancient times to present.

REFERENCES

The author record and photographs taken by visiting caves survey

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Wang Jun (王軍), YAO-DONG in CHINA (中國窯洞), Ha-Nam Science and Technology Publishing Firm (河南科學技術出版社), 1999.9.

- Appended Figures; Chinese Artificial Caves of YAO-DONG (中國窯洞)



a) Stone Cave of Nak-yang Dragon Gate



b) Village of Underground Artificial Cave