



文化的脉络

Ancient Transport

# 古代交通

「旁行天下，方制万里」

王亦儒◎编著

全国百佳图书出版单位  
时代出版传媒股份有限公司  
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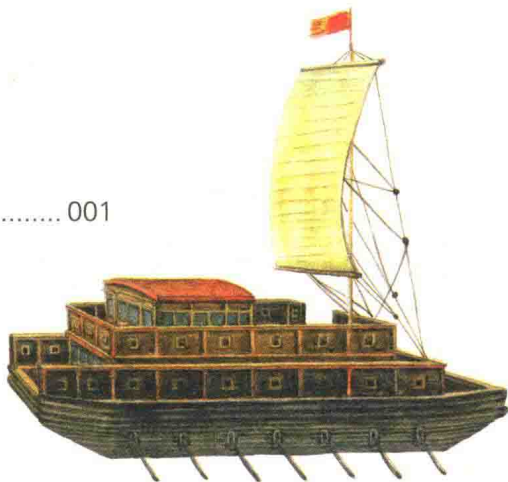
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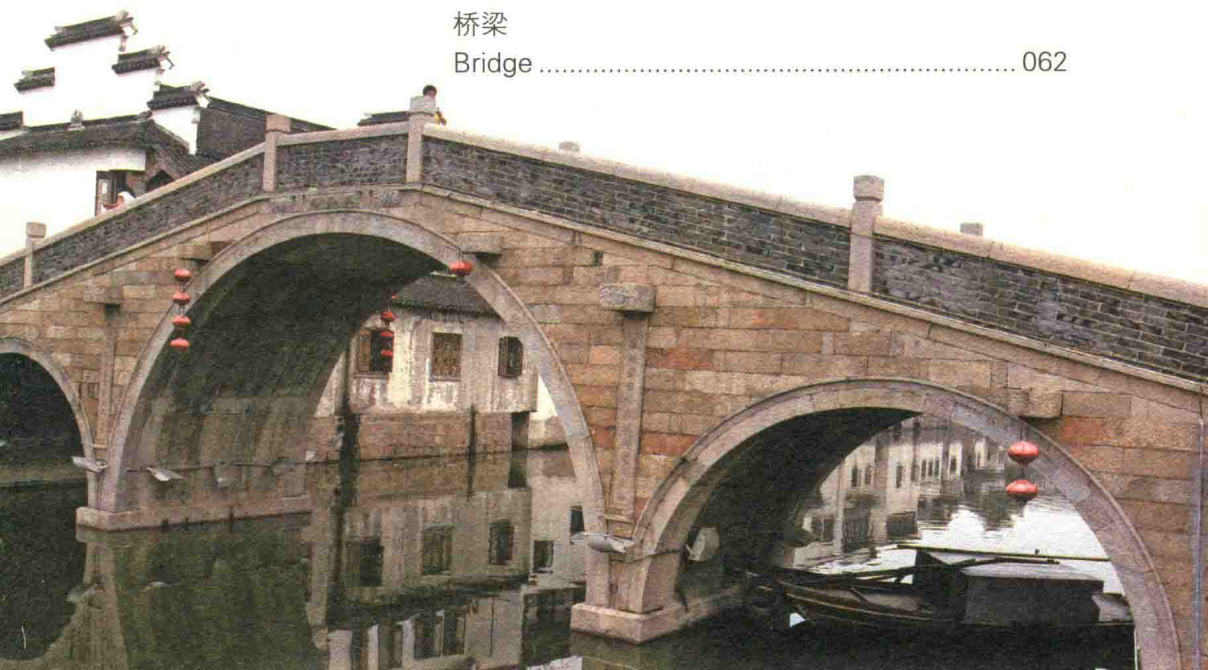
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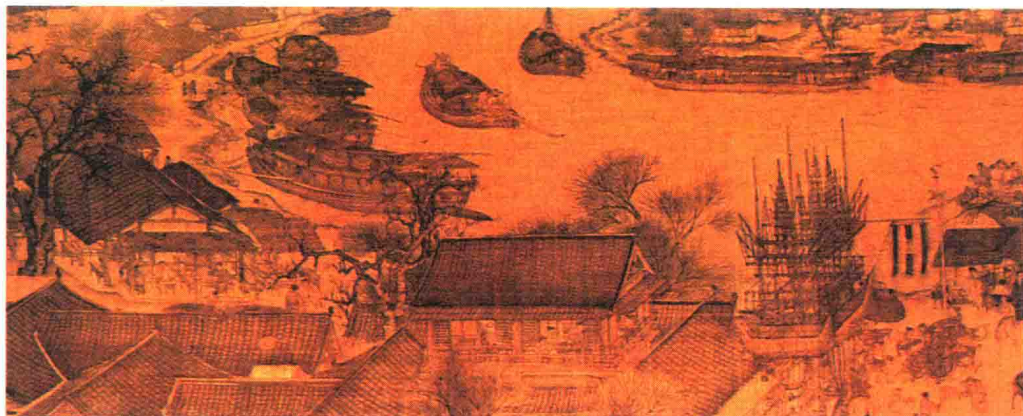
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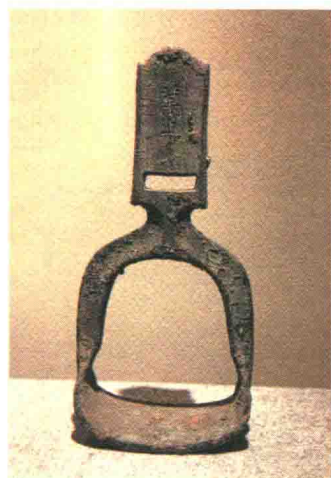
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# 中国古代交通概述

## General Introduction of Transport in Ancient China

路是人走出来的。自从出现了人类之后，就开始有路。在中国几千年的文明史中，交通为中华文明的发展作出了重要的贡献。

Roads were created by humans. The road started with the emergence of human. In China's thousands of years of history, the transport has made important contributions to the development of Chinese civilization.





中国古代交通的起源可以追溯到距今170万年左右的旧石器时代。但由于当时生产力水平的低下，原始先民只能在所居住的洞穴附近，沿着河谷小道从事渔猎和采集活动。当这些原始人离开洞穴去打猎、捕鱼和采集的时候，中国人最早的交通活动就在他们脚下开始了。这一时期的道路处于“踏地为路”的被动状态。当这些原始先民掌握了农耕、畜牧、制陶等一系列生产、生活的技术之后，便逐渐在平原、丘陵和山区这些适合农业生产的地方定居下来，建立起以血缘为纽带的星罗棋布的氏族村落。随着社会生产力的发展，各氏族和各部落之间为了联系和沟通，逐渐开辟出各类天然道路，并“剡木为舟，剡木为楫”，开始了自觉的水路交通建设。

The origin of transport in ancient China dates back to 1.7 million years ago in the Paleolithic Period. However, back then the level of productivity was so low that primitive people had to engage in hunting, fishing, and gathering activities along trails of the river valley near to their residential caves, and so was the primitive road transport in China. Roads in this period were passively constructed by “treading”. After Chinese ancestors acquired a series of production and living skills including farming, animal husbandry, and pottery making, they gradually settled down in any agriculturally viable lands, like plains, hills, and mountainous areas and established numerous clan villages connected with blood relationships. Due to the development of social productivity and the demand for communication, people started to build myriads of natural roads and boats and oars out of hollowed



#### • 车马坑（殷墟出土）

殷墟是商代后期都城的遗址，在今河南安阳小屯村及其周围。商代从盘庚到帝辛（纣），在此建都达273年，是中国历史上可以肯定确切位置的最早的都城。殷墟出土了数量众多、形制完备的车马遗迹，这些遗迹的发现显示出车马在商代已经大规模运用。

**Chariot Pits (Unearthed from the Yin Dynasty Ruins, 1600 B.C.-1046 B.C.)**

Yin Dynasty ruins, ruins of the ancient capital city of the late Shang Dynasty, covers the Xiaotun Village and its neighborhood in Henan Province. Yin had been the capital of the Shang Dynasty for about 273 years between the reigns of Pan Geng to Di Xin (also known as Zhou). It is the most ancient capital in China's history that has an accurate location on today's land. A large number of horse-carts with complete structure were unearthed from here, which shows their popularity in the Shang Dynasty.

伴随着中国古代私有制、阶级和国家的出现，一些较大规模的城邑建立起来。人们开始在这些城邑之间铺设道路。比如在河南省的龙山文化晚期遗址中发现的城门、路基遗址和陶制排水管道等，就证明了早在五千多年前，中国就已经出现具有多种功能的人工道路系统。

中国古代造船始于新石器时代。1958年，在浙江杭州和湖州先后出土了数只新石器时代的木桨。1977年浙江余姚河姆渡文化遗址中又发现5000

tree trunks, which marked the beginning of purposeful construction of road and waterway transport.

Accompanied by the emergence of private ownership of property, hierarchy, and the concept of nation in ancient China, several large cities and towns were set up. It was between these towns that paved roads were laid. For example, the relics of city gate, roadbed, and pottery drainage system of the late Longshan Culture discovered in Henan Province have proved the existence of multifunctional man-made roads in



#### • 独轡车

独轡车的舆身一般为长方形，四周设有护栏，仅在后侧留一缺口，以便上下。车舆上方可置车盖。车舆底部由车轴和车轮相承托，车轴横向固定在舆底的垫木上。牵引车轮而行的是纵向装在舆底中部的一根向上弯曲的独轡（又称“轡”），其前端横置一根横木，横木左右两侧安有车轭，用它夹住两匹马的颈脊，轭钩上还系有拉车的挽绳。

#### Single-shaft Cart

Generally, the single-shaft cart is in a rectangular shape and has fences around it. Usually, a gap is left at its back as the passenger pass. Above the cart, a cover can be installed, while under it there are axles and wheels to support it. The axles are horizontally fixed on a wooden pad below the cart. A single *Yuan* (it means the shaft, also known as *Zhou*) curving upward is longitudinally installed in the middle of the cart and is hitched to the wheels. In the front of the shaft, a beam forms a cross with it. On both sides of the beam, two yokes are attached to it and used to harness the shoulders of two horses, while the hooks on the yokes are attached to the traces.

年前的木桨。这些划水工具的出现，表明当时在杭州湾和太湖流域已有舟楫往来。1960年在黑龙江江边发现的岩画上绘有一叶头尾上翘的小舟。2011年，在浙江省境内发现了一艘在地下沉睡了至少7500年的小木船，这也是迄今为止中国出土的年代最早的

ancient China back to 5,000 years ago.

Boatbuilding started in the Neolithic Age (approx. 8,000 years ago) in ancient China. In 1958, several wooden paddles made in this period were evacuated from Hangzhou City and Huzhou City of Zhejiang Province; in 1977, some wooden paddles made over 5,000 years



水上交通工具。从上述舟船的分布来看,当时中国南方和北方的广大地区都有舟船航行,它们显示出原始先民在古老的中华大地上征服水域的早期历程。

夏、商以来,随着生产力水平的提高,尤其是统一的奴隶制国家政权的出现,使原始而分散的道路状况出现了根本的转变,交通道路的建设已成为社会的总体行为,大规模的道路网开始形成。

夏朝(约前2070—前1600)的统治中心主要在今河南西部和山西南部一带,并呈现出沿黄河流域自西向东横向建立交通联系的大趋势。《史记·夏本纪》中在彰扬夏朝有名的君主禹时,就着重谈到他率领诸侯百姓“开九州,通九道”的功绩。商朝(前1600—前1046)的统治中心大致在今天的河南北部、河北南部一带,其道路发展呈现出由这一地区向四方辐射推进的趋势。《墨子·非攻》一书中说商朝君王汤“通于四方,而天下诸侯莫敢不宾服”。正是在这种经营观念指导下,商代人以王都为中心,在王权直接统治的范围之内,初步

ago was discovered in the relics of the Hemudu Culture located at Yuyao City of Zhejiang Province. These unearthed paddles indicate that there were boats traveling between Hangzhou Bay and Taihu Lake Basin at that time. In 1960, a small boat with pointed ends was found being painted on a petrogram around the Heilongjiang River (also known as Amur River). In 2011, a small wooden boat made at least 7,500 years ago was discovered in the underground of Zhejiang Province and is regarded as the earliest water craft unearthed from China. Thus, judging from the locations of evacuation sites, traces of boats can be found in both south and north of China, which reveals Chinese ancestors' early attempts at conquering the water in ancient times.

With the improvement of productivity in the Xia Dynasty (approx. 2070 B.C.-1600 B.C.) and the Shang Dynasty (1600 B.C.-1046 B.C.), particularly with the establishment of unified slavery regimes, primitive and scattered roads were transformed into a large scale road network and road construction became a social conduct.

The political center of the Xia Dynasty (approx. 2070 B.C.-1600 B.C.)



• 仰韶文化船形网纹彩陶壶

此壶宽24.9厘米、高15.6厘米、口径4.5厘米，1958年在陕西省宝鸡仰韶文化遗址出土。彩陶壶直口、短颈，器身横置，颇像一只浮在水中的小船，侧面有一张用黑色颜料绘制的渔网。

Boat-shaped Pottery Pot with Fishing Net Pattern from Yangshao Culture (5000 B.C.-3000 B.C.)

The pot is 24.9 cm wide, 15.6 cm tall and has a mouth of 4.5 cm in diameter. It was unearthed from the relics of the Yangshao Culture in 1958 at Baoji, Shaanxi Province. With a straight and short neck and a transverse body, it looks like a boat floating on the water. There is a fishing net painted with black pigments on its ventral.

建立起通往四方的交通干道。在干道沿途还专门建立了供贵族、使者食宿的“羁舍”和保障道路畅通的机构。分布四方的属国、异邦则在王畿干道之外建立起与之相连的普通道路系统。

这一时期是奴隶制国家建立和发展的时期，统治者迫切需要运用先进的交通工具，以便对日益

was around now the west of Henan Province and the south of Shanxi Province, where transport lines were established along the Yellow River Valley and tended to link the west with the east in a horizontal manner. When the *Annals of the Xia Dynasty* in the *Records of the Grand Historian* summarize the merits of Yu, the famous king of the Xia Dynasty, it highlights his achievements of leading his people “to explore new farm lands in nine states and to dredge nine rivers”. As for the Shang Dynasty (1600 B.C.-1046 B.C.), its political center was around now the north of Henan Province and the south of Hebei Province where roads spread from there to all quarters. According to the chapter *Condemnation of Offensive War* in the book *Mozi*, Tang, the first king of the Shang Dynasty (1600 B.C.-1046 B.C.) owned a transport network that linked to everywhere, thus no vassal state dared to fight against him. Inspired by this idea, people in the Shang Dynasty completed the primary construction of main roads centering around the capital city, which connected with other places within the regime. Along the main roads, official lodges were established to accommodate the nobles and messengers and road



辽阔的疆域实施有效的统治。车辆的发明和改进，恰恰满足了统治者的这一需求，因而得到了迅速的发展。这一时期的畜力车已经从实验进入到实用阶段，用人力的挽车在祭祀、迎宾等场合也经常出现。从殷墟出土的数量众多、形制完备的车马遗迹来看，至少在商代，马车便已经进入到实用阶段。牛车的使用也与马车一样古老。在商、周遗址中出土过众多的鼻环、玉牛和铜牛，这显示商周的先民已经懂得系驾牛车了。这一时期的车辆一般为独辮双轮、一衡双轭的结构，这类

maintenance body was set up. Besides, ordinary roads were constructed on areas where the main roads could not cover to connect vassal states and foreign countries with the capital.

As this was a critical period for the rulers to establish and develop the slavery regime, advanced means of transportation were urgently needed to help them manage the increasingly expanding territory in an effective way. Thus, to meet their demand, vehicles were rapidly invented and improved. During this period, animal-drawn carts had gone from trials into daily use. Handcarts that were pushed by humans



• 船形陶壶（新石器时代）

Boat-shaped Pottery Pot (Neolithic Age, approx. 8,000 years ago)



● 独木舟（新石器时代）（图片提供：FOTOF）

这个独木舟在浙江萧山跨湖桥文化（距今七八千年）遗址出土。原始社会生产力低下，人们大都聚集在有水的地方，依靠渔猎而生。在与水打交道的过程中人们懂得了“利涉大川，乘木有功也”（《易经》），意思是骑着木头可过大河。于是或“编木为筏”，或用刀斧等工具将原木挖空做成独木舟等，以便水上活动。

Canoe (Neolithic Age, approx. 8,000 years ago)

This canoe was unearthed from the relics of Kuahuoqiao Culture (8,000-7,000 years ago) in Xiaoshan, Zhejiang Province. Due to the low productivity of the primitive society, primitive people tended to live by the water and made a living by fishing and hunting. With increasing experiences with the water, they realized that "one can successfully cross the great stream by riding in a wood vessel" (from *Zhouyi* also known as the *I Ching* or the *Book of Changes*), which means that trees can help them to cross the river. Thus, they "made raft with wood" and made canoe by hollowing the tree trunk with tools like the knife and the hammer so as to create crafts for transport on the water.

frequently appeared in occasions like rituals of sacrifice and guest reception. Judging from the large number of horse-carts with complete structures that were unearthed from the Yin Dynasty ruins, horse-carts had already been in use in the Shang Dynasty (1600 B.C.-1046 B.C.). The use of ox-carts was as early as the horse-cart. Jade and bronze oxen with nose rings were unearthed from the relics of the Shang Dynasty and the Zhou Dynasty (1046 B.C.-256 B.C.), which shows that the people from the Shang and Zhou dynasties had learned how to ride the ox-carts. Generally speaking, typical vehicles produced in this period



车被称为“独辀车”。

夏、商之后，文献中关于舟楫的记载也多有出现，考古中出土的船舶实物也逐渐增加。据《周易·系辞》一书记载，中国古代最初的舟楫就是“剡木为舟，剡木为楫”而成的独木舟。当独木舟不能满足先民们在水上的需要时，他们便在其四周增加木板，加装船舷，从而改制出新型的木板船。这在殷商的甲骨文和其他文献中都有记载。这一时期的木板船已经被用来运兵作战。

西周（前1046—前771）时期，统治者为了加强对分封诸侯国和属地的控制，十分注意道路建设。在以镐京（今陕西西安）为中心的方圆千里的王畿之内共设有十余个关口，在关内专门修有宽阔的大道。在关外则有通往各地的普通道路。这些道路平坦笔直，故有“其平如砥”（和磨刀石一样平坦）的赞誉。

春秋战国时期（前770—前221），各国对道路的修建不遗余力，在商、周交通干道的基础上，修建了纵横南北和东西的多条交通

had a single shaft and two wheels or a single shaft and two yokes, and thus were known as “the single-shaft cart”.

Watercrafts often appeared in historical records written after the Xia Dynasty (approx. 2070 B.C.-1600 B.C.) and the Shang Dynasty (1600 B.C.-1046 B.C.). Besides, more ancient boats and ships that have been unearthed were built around the two dynasties. According to the *Introduction of the Zhouyi* (also known as the *I Ching* or the *Book of Changes*), the most primitive boat in ancient China was the canoe. It was made by “hollowing the tree trunk” and its paddles were made by “sharpening tree branches”. When ancient Chinese found that the canoe failed to meet their need to further explore the water, they added wooden planks and bulwarks around the canoe and created a new type of watercraft, the wooden boat. According to written scripts on oracle bones from the Shang Dynasty (1600 B.C.-1046 B.C.) and other historical records, the wooden boat was used to transport soldiers at that time.

During the Western Zhou Dynasty (1046 B.C. -771 B.C.), the rulers devoted considerable attention to road construction so as to strengthen the



• 公元前515年吴国建造的大翼战船模型（春秋）（图片提供：FOTOE）

Model of *Da Yi* Warship Built at the State of Wu in 515 B.C. (Spring and Autumn Period, 770 B.C.-476 B.C.)

干线。这一时期的道路类型以车的宽度为标准，大致可分为五种：径（可通牛车）、轺（可行大车）、途（一轨，宽约26.4厘米）、道（二轨宽）、路（三轨宽）。另外，此时在高原和山区还建起各类栈道，如秦蜀之间的栈道等。

水上交通在这一时期有了进一步的发展。当时人们不仅利用了自然河道，而且还开凿了人工运河。春秋时期，最先开凿运河的是陈、

control of vassal states and dependencies. Over ten junctions were set up centered around the capital city Haojing (now Xi'an, Shaanxi Province) and within an area extended over thousands *Li* (Chinese mile, equals to 500 meters). Wide avenues were constructed to link the capital city and the junctions, while normal roads were built to link the junctions and other places. As these roads were straight and flat, they were honored "as flat as the whetstone".

During the Spring and Autumn

蔡、楚等国。当时，陈、蔡两国为了改善相互之间的交通联系，开凿运河将淮河的两条支流沙水和汝水连通起来。楚国也开凿了一条从都城郢到汉水的水道。不过，这一时期最重要也最著名的是吴国开凿的沟通太湖与长江的胥河、沟通长江与淮河的邗沟、沟通淮河与黄河的菏水，以及魏国开凿的沟通黄河与淮河的鸿沟。

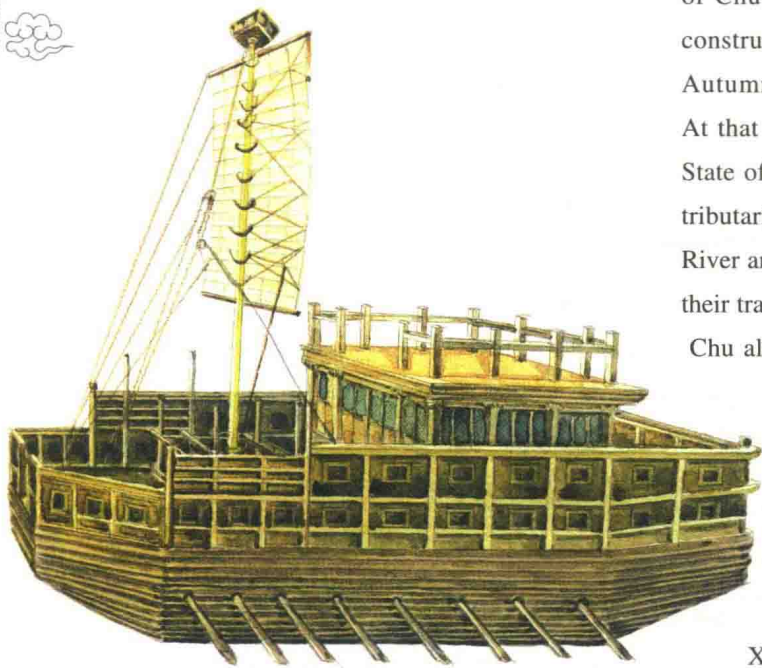
春秋战国时期的造船业也迅速发展，南方已经有了专门的造船工

Period and the Warring States Period (770 B.C.-221 B. C.), all states spared no efforts to construct roads. On the basis of roads that were built during the Shang Dynasty (1600 B.C.-1046 B.C.) and the Zhou Dynasty (1046 B.C.-256 B.C.), more main roads were constructed to link the south and the north, as well as the east and the west. Width of the cart was used as the criteria to categorize the road. Thus, there were roughly five road types, *Jing* (for ox carts), *Zhen* (for bigger carts, like the chariot), *Tu* (26.4 cm wide as the



• 战国大翼船 (图片提供: FOTOE)

*Da Yi Warship* (Warring States Period, 475 B.C.-221 B.C.)



#### • 斗舰

斗舰是中国古代水上作战的主要舰艇，便于近身作战。

#### Fighting Ship

The fighting ship is a major warship in ancient China. It is good at approaching the enemy to create chances for short distance fights.

single track), *Dao* (two tracks wide), and *Lu* (three-tracks wide). In addition, plank roads along cliffs were built in plateaus and mountainous areas, like the ones between the State of Qin and the State of Sichuan.

In this period, water transport was further developed on natural waterways and newly built canals. The State of Chen, the State of Cai, and the State of Chu were among the first states to construct canals during the Spring and Autumn Period (770 B.C.-476 B.C.). At that time, the State of Chen and the State of Cai dug a canal to connect two tributaries of the Huaihe River, the Sha River and the Ru River, so as to improve their transport links. Besides, the State of Chu also built a canal from the capital city Ying to the Han River.

Nevertheless, the most important and most famous canals of this period were the three canals built by the State of Wu, including Xuhe Canal that links the Taihu Lake with the Yangtze River, Hangou Canal that connects the Yangtze River with the Huaihe River, the Heshui Canal that connects the Huaihe River and the Yellow River, as well as the Honggou