

ABSTRACT - 5. DISASTER AND CONFLICT RESILIENT HERITAGE - CULTURAL HERITAGE IS INCREASINGLY VULNERABLE TO DISASTERS AND CONFLICTS AND SUBJECT TO RAPID DESTRUCTION, AS EVIDENCED BY THE RECENT FIRES, FLOODS, EARTHQUAKES AND ESCALATING ARMED CONFLICTS IN DIFFERENT PARTS OF THE WORLD. AT THE GENERAL ASSEMBLY 2023 IN SYDNEY, ICOMOS ADVISORY COMMITTEE APPROVED THE THEME OF "DISASTER AND CONFLICT RESILIENT HERITAGE - PREPAREDNESS, RESPONSE AND RECOVERY" AS THE THEME FOR THE TRIENNIAL SCIENTIFIC PLAN 2024-2027. IN KEEPING WITH THE SPIRIT OF OPEN, INNOVATIVE, CONSTRUCTIVE INTERGENERATIONAL DIALOGUE, AND THE STRATEGIC FOCUS, THIS SUB-THEME WILL ADDRESS THE SUITABILITY OF THE VENICE CHARTER WITH THE THEME OF DISASTER AND CONFLICT-RESILIENT HERITAGE, EMPHASIZING ITS BROADER IMPLICATIONS FOR HERITAGE DISCOURSE, DEVELOPMENT MODELS, AND RESILIENCE STRATEGIES.

KAIFENG ZHOUQIAO BRIDGE, A NEW ARCHAEOLOGICAL DISCOVERY THAT DEMONSTRATES THE RESILIENCE OF HERITAGE IN THE FACE OF WAR AND NATURAL AND MAN-MADE DISASTERS

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Kaifeng Zhouqiao Bridge, a New Archaeological Discovery that Demonstrates the Resilience of Heritage in the Face of War and Natural Disasters

Kaifeng city, located on the banks of the Yellow River in the Central Plains of China, was the ancient capital of eight different dynasties across Chinese history, including the Northern Song Dynasty (960-1127AD) which had the most prosperous economy of ancient times. The section of the Yellow River where Kaifeng is located is an above-ground river, more than 10 meters higher than the surrounding areas, and has flooded the city more than 40 times over its history. The physical layout of the city's central axis has remained unchanged for thousands of years, since the Tang Dynasty (618-907AD). It is a globally rare kind of archaeological site, having overlapping ancient archaeological and modern urban histories.

The Zhouqiao Bridge, lying on the city's central axis, is one of its most representative landmark structures. The site initially discovered in the 1980s and begun excavations in 2018. It covers 4,400 square meters, where over 117 remains and 60,000 archaeological finds were discovered. The latest excavations of the site and nearby Bianhe River sites have revealed Song Dynasty strata, located 8-13 meters below the ground level of today's city, as well as complex structures dating to the later Dynasties above it. Excavation reports from 2022 and 2023 listed the precise nature of discoveries in detail, including: river channels, the banks, riverbed, water conservancy facilities, shipwrecks, ceramics sherds etc.; more than ten meters of stone revetments on the banks carved with images of sea animals; the foundations of houses that continued to be built on both sides of the river during the Jin and Yuan Dynasties; and completely collapsed houses, piles of bricks and skeletal remains dating from 1642, the 15th year of Chongzhen in the Ming Dynasty, after an invading army breached the dikes along the Yellow River and flooded the entire city of Kaifeng. The ancient embankments and course of the Bian River are also distinct at the Zhouqiao site, with clear stratigraphic boundaries. For the first time, the overall form of the Bian River waterworks across several historical periods has been fully uncovered.

These excavations are able to not only confirm the occurrence and nature of flooding events written about in historical sources, but to track the evolution and development of China's Grand Canal's Kaifeng section. Human remains, artifacts and flood silt were matched to clearly-defined stratigraphic layers which were then correlated to known historical disasters, enabling archaeologists to

more rapidly expand their body of knowledge on these disasters' nature and their aftermath.

The next step is to consider partially exposing the ancient north-south Zhouqiao Bridge and the east-west flow of the Bianhe River across the Bridge, displaying them in the form of an underground city. The above-ground part is under consideration for repaving with viaducts to maintain the actual function of Kaifeng's central axis, and to symbolize the protection and perpetuation of cultural heritage.

Palavras-chave: flood; flood risk; resilience; conflict; war; man-made disasters; natural disasters.