

Technology helps identify missing characters in ancient military classic

East China's Shandong Province is using high-tech methods to identify missing characters in "Sun Bin's Art of War," an ancient Chinese military masterpiece written more than 2,000 years ago.

Unearthed in 1972 from an ancient tomb in Yinque Hill, Linyi City, the text, recorded on bamboo slips, has many characters missing.

Under a protection and research project launched in 2015, infrared scanning and high-definition digital cameras have been used to find the missing information.

High-definition photos can be enlarged for delicate observation, and some "invisible" characters can appear through infrared scanning, according to Zhang Haibo, a member of the project team with the Shandong Museum.

With the technology, more than 50 missing characters on the bamboo sheets have already been identified, said Zhang.

The project, which involves protection and research on thousands of bamboo books unearthed in Yinque Hill in 1972, is a result of cooperation between the museum and the Chinese Academy of Cultural Heritage.

According to historical records, "Sun Bin's Art of War" by Sun Bin of the Warring States Period (475 B.C.- 221 B.C.) develops the military principles in "Master Sun's Art of War," the world's oldest military treatise, written by Sun Tzu during the late 6th Century B.C.