

**The improvement of the Support system to decode excavated historical documents and the development of the comprehensive research center database.**

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**【Outline of survey】**

The objectives of this research are to archive knowledge and information related to “Mokkan” (wooden tablets) and other excavated historical documents, to share the knowledge and information widely, and to provide high performance retrieval methods for the knowledge and information.

Since the condition of the characters is aggravated by their missing parts and aging degradation, archiving and utilizing large amount of the knowledge and information are necessary to read the characters written on the mokkans. Therefore, by expanding our current research results (“Mokkanshop”: the support system to decode mokkans/“Mokkanjiten”: the database of the knowledge and information related to the mokkans), we conduct a new research to build the following items:

(1) A new support system to decode mokkans that contains high high performance recognition/retrieval functions of the character patterns and communication functions for ubiquitous network among archaeologists and their knowledge (hereafter called “new Mokkanshop”).

(2) A comprehensive research center database that expands the knowledge and information beyond the time and place distances, standardizes the format to record the knowledge and information, and provides the links with GIS and historical document databases (hereafter called “new Mokkanjiten”).

Additionally, by interlocking new Mokkanshop and new Mokkanjiten, and by sharing the knowledge and information, this research starts and sustains the chain reaction between “decoding mokkans by using the archived information and knowledge” and “archiving the information and knowledge by decoding mokkans”.

**【Expected results】**

The “Comprehensive Research Center (CRC)” consisting of the new Mokkanshop and new Mokkanjiten becomes a breakthrough in the research areas of the excavated historical documents and history (especially, in the ancient time of Japan). Additionally, the CRC accelerates the researches of historical potteries and lacquered paper documents, works with other historical research institutes and databases. Moreover, the CRC can be utilized for the researches of historical Kanji documents in China, Korea, and other East Asian country, and for the researches of historical characters in the world. Finally, the CRC becomes an unprecedented research result of the historical research in the world.

**【References by the principal investigator】**

- Akihiro WATANABE: The Century of Heijo and Mokkan, *Japanese History 04*, Kodansha Ltd., 2001.
- Akihito KITADAI, Masaki NAKAGAWA, Hajime BABA, Akihiro WATANABE et al.: Context Processing to Support Decoding Mokkans, *Japan Society for Archaeological Information*, Vol.13, p.p.22-33, 2007.

**【Term of project】** FY2008—2012

**【Budget allocation】**

**104,000,000 yen** (direct cost)

**【Homepage address】**

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