ISAT 9 研討會 紀實

■ 發表論文

The 9th International Symposium on Advanced Technology

November 3 – 6, 2010
Tokyo, Japan

Sponsored by
Kogakuin University

Co-Sponsored by
Beijing University of Chemical Technology
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Supported by
Student Support Program Based on Social Needs (Student Support Good Practice Program) by Ministry of Education, Culture, Sports, Science and Technology (MEXT-JAPAN)

（封面）

Ouyang Xun's Genuine Handwriting Restoration from Ancient Rubbings and Vectorized Shape Description

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Abstract

The calligraphy is one of the quintessence of oriental culture. It is no doubt that only when people begin to appreciate traditional Chinese calligraphy, they can really explore the beauty of Chinese characters. But since most ancient calligraphy rubbings are so obscure and fragmentary, it is a pity that some characters in current existing calligraphy samples are not perfect enough to preserve the spirit of the original calligraphers. Even some calligraphy documents are imitated by contemporary calligraphers without declaration on the cover. Thus in this paper, we try to apply modern image processing and Matlab software techniques to build a GUI-based system that can help restore genuine handwriting from ancient rubbings. Ouyang Xun's ancient rubbings will be first taken as an example, which is one of the most representative Chinese regular scripts, to verify the feasibility of the proposed system. On the other hand, some rubbing characters are small, so the zigzag phenomenon will happen when publishers enlarge those characters. Furthermore, current existing font files for computers are so popular and convenient, but the characters look dull or stiff when font size is increased. Those font files can't represent the beauty or feature of calligraphy art yet. The presented system will vectorize the digital images of restored Ouyang Xun's handwriting and further proposes methods of feature extraction and building up object database of important radicals and strokes. Then it may be possible to produce the font files in an automatic way in the future. This paper hopes to contribute to the preservation and propagation of calligraphy art.

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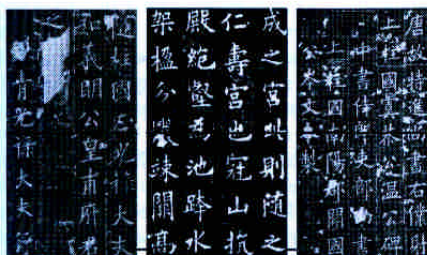
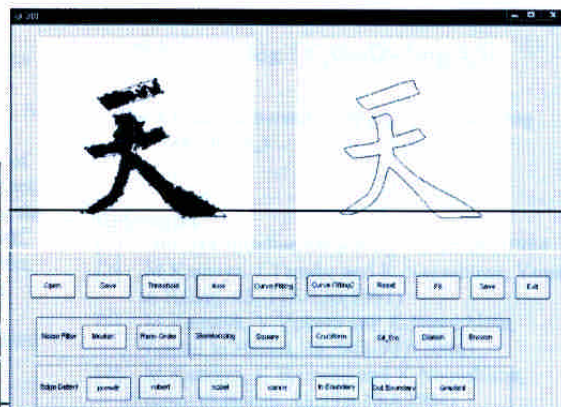Fig. 1. Ouyang Xun's ancient rubbings in different periods.

Fig. 2. The proposed Matlab GUI-based system for restoration and vectorization.

■ 論文發表（英文）

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