

Digital Approaches to Recently Excavated Ancient Chinese Texts

Jeffrey Riegel, University of California, Berkeley, USA

Title

The discovery of ancient texts and manuscripts by Chinese archaeologists has transformed the study of ancient Chinese culture.

My purpose today is to show how recent developments in computer technology can help transform the study of these manuscripts.

Outline

I will be talking about three manuscript discoveries.

The first and third on my list are texts found at the Hebei site of Dingzhou (formerly Dingxian) in the early 1970s.

The Lunyu needs no introduction.

The manuscript, written on bamboo strips, found at Dingzhou has an interesting history. It was found in a tomb that had been robbed and the text had suffered considerable damage from that earlier intrusion. Soon after archaeologists pulled it from the ground they transcribed into modern Kaiti characters the text that remained on the bamboo fragments. Later, these fragments were sent to Beijing for further study. In 1976, during the famous Tangshan earthquake, the containers that held them fell from their shelf and the text was further damaged. Another transcription was done based on what survived.

A thin paperbound transcription was published in the spring of 1998. The book contains no photos of the original text and very little apparatus, though it does distinguish between the text that survived the 1976 earthquake and the initial transcription. Roger Ames has published a translation of the Dingzhou Lunyu.

The bamboo text is fragmentary. Enough survives to let us know that the Lunyu text was written passage by passage (or zhang by zhang). The top and bottom of each strip is marked by a circle, a device to control the number of characters written on each strip.

A copy of the Wenzhi was also found at Dingzhou. The Wenzhi is an ancient work listed among the philosophical texts in the Han dynasty imperial library catalogue. Scholars have long been suspicious about the authenticity of the transmitted text.

The Dingzhou manuscript has been studied by Imre Galambos, a Ph.D student at Berkeley who has been working with me on materials such as these. I am also indebted to Imre for his help in putting together this presentation. Ninety-three fragmentary strips of the Wenzhi survive. Imre Galambos has shown, in his Berkeley M.A. thesis, that this discovery confirms that the transmitted Wenzhi is a forgery largely copied from the Huainanzi.

Guodian is a Chu site in Hubei province that dates to ca. 300 BCE. It was probably the burial of a royal Chu tutor and contained an important library of ancient texts, most of which are Confucian and seem to be related to Confucius's grandson, Zisi. The whole corpus was published in spring 1998 in a marvelous book entitled *Guodian Chumu zhujian*.

The Guodian text I am studying is a manuscript version of the Liji chapter "Ziyi," a treatise attributed to Zisi as early as the 6th century of this era. I wrote my dissertation on the Liji chapters associated with Zisi - they include, among other works, the famous "Zhongyong." Having the Guodian text should shed considerable light on early Confucianism, especially on the division of the Confucian school into branches before the rise of Mengzi and Xunzi.

Color background

All three of these texts present challenges to the researcher interested in analyzing them and to the teacher interested in using them in the classroom.

I will talk about some of these problems and how Imre Galambos and I have exploited the computer to approach them.

LY 2.7

The DZLY survives in fragments. No real Kaiti transcription was done; instead scholars have simply accepted the transmitted text as a standard and indicated what is to be found in the DZLY version. I have done the same thing in "inputting the whole text." This is a rudimentary first step in doing conventional text criticism.

What interests me here is trying to reconstruct the fragments and then the whole of the bamboo text. I have done this using Adobe Illustrator and Imre has changed a sample of this work into a stand-

alone program using Toolbook II.

Here you can see:

- 1) What the bamboo pieces look like
- 2) Where the passages would have fit on whole bamboo strips
- 3) What the surviving text relates to what was lost; a comparison made easier if we use different colors to represent the texts.

I would use something like this in the classroom to reconstruct the texts and the stages of its destruction.

What I have attempted with the Guodian text is more complicated. Because complete photographs and a complete Kaiti transcription was done, I have been able to produce a critical edition and annotated translation of the text.

GDZY Sample

This represents, however, rather conventional textual criticism in its format and does not engage us directly with the bamboo text. Having created the kaiti forms using the TwinBridge function for creating graphs, I asked Imre to help me link interactively the photographs of the original to the text work I did. This is a sample.

Here we can go from the text, divided up for ease of reference, to a transcription and then to the standard character forms related to the transcribed forms graphically or phonetically.

We can look at:

- 1) Individual graphs
- 2) Blocks of text, or
- 3) The whole passage with a translation.

In the future I will add links to the annotation I have written for both the transcription and the translation.

In his work on the Wenzhi, Imre Galambos was interested in making a detailed textual comparison between the excavated text and the transmitted version. To accomplish this he wanted to juxtapose and compare online versions of both. The transmitted version is found, of course, on the ASCC texts database. Here you can see part of that.

Imre input the excavated version himself, complete with the serial numbers assigned to the strips by the archaeologists who excavated the Dingzhou corpus.

We can bring it into a program that Imre wrote to compare both versions. The program examines the excavated Wenzhi fragments four graphs at a time and then marks those passages in which three characters correspond with passages in the transmitted version.

The program tells us the strip number in a sequence of 1 - 93, the byte number on the strip, and a code for indentifying text in the transmitted version. We can line up corresponding passages, side by side as you see in this sample. We can highlight the exact matches in red. And the results of the comparison can be exported as a text or html file.

What I have shown you are just experiments, work only partly done. I welcome your suggestions. Answers to more technical questions may have to await my return to Berkeley and the chance to discuss them with Imre Galambos. But I am confident that what we are doing will help make this inherently important material more accessible and help to communicate more effectively and to a broader audience its significance and interest.