




A view between the open open slats showing the Tripitaka in storage.

Preserving Words



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The Korean Ditakka

THE KOREAN TRIPITAKA, created between 1236 and 1251,

Words as spoken are fleeting, difficult to re-embody from faulty memory, subject to becomes the object of a brief meditation on the “lastingness” approximation and re-interpretation. Words as written, take on a stable embodiment, of the visual record in analog or digital form as expressed become authentic, reliable and lasting. Even better, words as printed, amplify the write-through natural or technical materials.

ten word through authentic distribution that eliminates re-writing, while it provides a

widespread foundation for discourse. Now the era of digital storage and access on the

web provide nearly unlimited distribution and the ability to search in depth – to search

not only *for* a document, but *through* its inner workings as well.

TRIPITAKA

THE KOREAN

In the mountains of central South Korea, near Taegu, at Haein-sa (Reflection on a Calm Sea Temple), a Korean national treasure resides, the Korean Tripitaka.¹ Carved by Buddhist monks between 1236 and 1251, the Buddhist canon was expressed on 81,340 woodblocks, carved on both sides. There are 322 characters on each side or a total of 52,382,960. A bow before carving each character was customary – the result is a perfect record, reported to have no typographical errors. The uniform calligraphic style appears to be the work of one hand. The Tripitaka consists of 6,791 volumes. If a reader read one volume a day, it would take eighteen years to complete the reading.

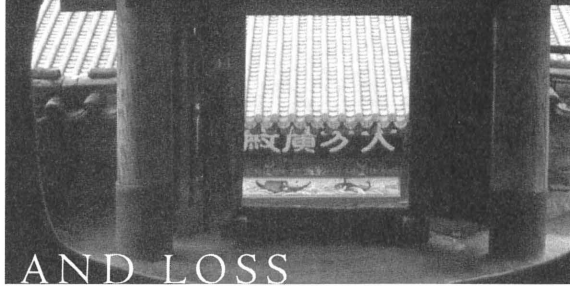
A MATERIALITY IN CONTROL

The material for the woodblocks is a variety of tall trees, including silver magnolia, white birch and cherry. The wood was carefully prepared by being submerged in seawater for three years before it was sawn into planks, which were then boiled in seawater and allowed to slowly dry in the shade before carving. The woodblocks have been carefully stored for centuries.

Behind the main temple at Haein-sa is a rectangular compound consisting of two long buildings, constructed in 1488, which house the Tripitaka, separated by two small buildings used for printing the woodblocks. The ground on which the buildings stand was prepared with charcoal, powdered lime and clay to control humidity. The building itself is open to the elements through a system of alternating vertical, wooden slats and open spaces that allows temperature and humidity change to act slowly and evenly on the organic blocks; they expand and contract with the weather. Over the centuries the woodblocks have been mold-free, until they were moved into a modern, climate controlled building which was designed and built expressly for their storage. When mold was noticed on the woodblocks, they were removed to their original, ancient storage buildings.



A view along the side of one of the storage buildings.



A HISTORY OF INVASION AND LOSS

The Korean Tripitaka, also called the Second Koryo Edition was based on the careful work of a monk named Sugi, who was charged to recreate the canon after the Mongols in a 1232 invasion burned the monastery where the first Koryo Edition was kept. Cultural domination has often been expressed through the destruction of valued text. Ironically, Koreans believed that the Tripitaka was a talisman against invasion. Sugi, in classic editorial fashion, recreated the canon through the examination of comparative texts and through consultation with experts. He left an account of the procedure he used for editing the canon, preserved as a woodblock.²

A DIGITAL FUTURE

Over the past years, in response to digital technology and its ability to make the Tripitaka widely accessible, its printed form has been digitized and made available through a searchable database. Begun by the University of California at Berkeley, an input site was set up in Shanghai, where the first two million characters were entered. The monks at Haein-sa led by Chongnim Snim took over the project with the support of the Samsung Foundation. The scale of this undertaking is impressive.

Now, the monks at Haein-sa are planning to digitally photograph the woodblocks themselves as high resolution images. An equally daunting task to the previous one, the authors estimate that it would take a monk eight years of diligent work to record the woodblock images. What is even more overwhelming is the digital storage necessary to contain the high resolution records. While visiting Haein-sa, the authors discussed the digital challenge with the monk in charge of this project, who is also a computer scientist.

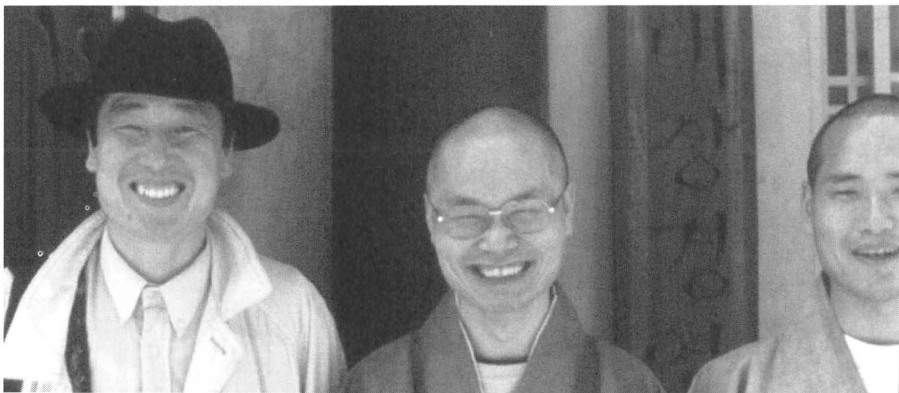


What is at issue is the lastingness of the digital record. When compared to the more than seven centuries of woodblock endurance and use, a look back over even seven years yields many digital files that are unreadable due to the volatility of both hardware and software. The preservation community must look twice at such a record. Like the contemporary storage building that failed in its task, digital storage can itself become an invisible language record as compared to the physical, wooden, low-tech, “words in space” record that has travelled so well through time and space.

Six experts assembled by the *New York Times* to discuss millennial strategy with regard to the creation of a time capsule for the year 3000, roundly and unanimously counted out digital storage as a viable strategy. One expert observed that digital storage was an all-or-nothing proposition, as once the ones and zeroes of that record begin to break down, the entire record is unreadable. This is in contrast to analog records whose broken surfaces and missing elements still yield enough information to allow for reconstruction. Yet another expert wanted to be certain that paper itself was given its due importance as paper can last a thousand years under the right conditions.³

Understanding of the physical world – wood, climate, safe-keeping – still exceeds our technological sophistication. Yet the benefits conferred by the technological and the digital in particular remain significant, in particular the ability to search and to find. Analog and digital records will coexist, achieving different benefits in use resulting from their differences in character. The stability of the analog as the model or archetype is complemented by the dynamic, maleable nature of the digital.

Professor Sang-Soo Ahn with the digital monk (center) and his associate.



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ENDNOTES

- 1 Additionally, UNESCO has given the Tripitaka Koreana woodblocks a World Cultural Heritage designation.
- 2 The Second Koryo Edition of Sugi is available to readers in a forty-eight volume set of facsimiles of the xylograph rubbings at Haein-sa. *Koryo taejanggyong*. 1976. Seoul: Tongguk University Press.
- 3 For an interesting discussion of preservation and its many volatile dimensions, including material, code, institutional caretaking, politics and more, see "Built to Last." *New York Times Magazine*, December 5, 1999, 86, 88, 92, 94.

REFERENCES

Haein-sa. Reflection on a Calm Sea Temple. 1994. Kyongsang-do Province: Haein-sa Press. Lancaster, Lewis. "The Buddhist Canon in the Koryo Period." <http://members.iWorld.net/hedersin/seminar/lancast.htm>