

# Explanations on Yugyochaekpan (Confucian Printing Woodblocks in Korea)

## 1. Brief History of Korean Printing Woodblock

A woodblock is a wooden frame to make a book. First, the wood is cut into certain sizes and paper with the written contents of the book is attached to the cut wood. After engraving the contents on the wood, Chinese ink is put on the surface. When another paper is put over the surface and rubbed together, the contents are printed on the paper. The book is made by gathering each printed paper, and this method was used more than 1,300 years ago in Korea.

Most of the woodblocks in Korea, called chaekpan in Korean, were used for publishing books, and in the records of the traditional era, woodblocks meant Printing Woodblocks. Books published with the Printing Woodblocks in Korea are divided into two kinds: Printing Woodblocks for Buddhist scriptures and the Confucian Printing Woodblocks (or in Korean) for printing collected writings and others.

Buddhism exerted significant influence on Korea since its introduction in 372 A.D, and the technique of inscribing Buddhist scriptures on steel, or epigraph, was well developed.

However, the epigraph was inherently limited in the distribution of its contents. In the meantime, Printing Woodblocks technique, much easier in engraving and in distributing the contents, was introduced from China, and the technique was advanced significantly in Korea. For instance, the Spotless Pure Light Dharani Sutra ( ), the oldest Printing Woodblocks in the world, was made in the mid-8th century in Korea. Of particular note, printing Buddhist scriptures on woodblocks enjoyed a heyday during the Goryeo Dynasty (918~1392 A.D.) followed by the Three Kingdom era. One of the most representative examples is the printing woodblocks of the Tripitaka Koreana and miscellaneous Buddhist scriptures, which were registered as a Memory of the World in 2007.

During the Goryeo Dynasty, publishing books using woodblocks was widespread and various kinds of books were made and available. Besides the Buddhist scriptures, imported books from China and works written by scholars of Goryeo

were widely distributed. Hence, the Song Dynasty dubbed Goryeo as Country of Literature since book publication was active to such a degree that they dispatched envoys to Goryeo to find some books originally published in China but found only in Goryeo. Most of the books were published in printing woodblock except a handful of books published with metal types.

However, woodblocks of Goryeo, including individual works and government-led publications, rarely remained safe unlike some of the woodblocks of Buddhist scriptures such as the Tripitaka Koreana. First, more than 600 years have passed since the fall of Goryeo Dynasty, which was founded in 918 and fell in 1392. Second, wars and rebellions like the invasions of the Mongols and the Red Turban, and the uprising of Lee Ja-kyum ruined the then-capital, Gaegyeong, burning most of the woodblocks preserved in the central government. Only a small amount of woodblocks were known to have survived and to be transferred to the Joseon Dynasty.

Confucian books were published largely during the Joseon Dynasty (1392~1910) instead of the Buddhist scriptures as Confucianism was the national ideology of the dynasty. Plus, a policy pursuing literature contributed to active book publication. In its early era, the central government of Joseon used metal types to publish books necessary for national administration. However, publications using metal types were extremely limited due to the high cost for making innumerable types of Chinese characters and insufficient printing techniques. Hence, the dynasty decided to reprint the books which were originally published with metal types, pursuant to demand or the ones to be preserved for a long time, with woodblocks. Most of the government-led publications dealt with the national administration as well as the Confucian classics needed for, the then-state examination, and textbooks for child education and enlightenment.

A change in government-led publications was witnessed since the 16th century when (scholar-officials) advanced to the central government: the intermittent publication of collected writings and genealogy of the scholar-officials began. , a booklist of woodblocks published in 1585, introduced 985 kinds of books published with woodblocks from 1392, the founding year of the dynasty, up to 1585. According to relevant research, only half of the books are listed in , and most of the Buddhist scriptures are excluded except the three kinds included in the group of 985. The list mostly contains books published in the necessity of the nation, and about 70 kinds of collected writings of scholar-officials are included. It shows that the book publication process was monopolized by the government, but also shows a gradual introduction of so called . In particular, a type of book dealers called (冊庖) began distributing books, though was not fully developed.

Wars caused huge critical damage not only for people but also for the books and woodblocks. From 1592, Joseon fought a war against Japan over 7 years, and most of the territory was destroyed by the war. Though the war against Japan

ended in 1599, Joseon was severely damaged again by a full-fledged war against the Qing of Manchuria in 1636. Hence, some scholars even dubbed this period as the genocide of books and woodblocks. Though the Tripitaka Koreana, preserved deep in the mountains, escaped the damage caused by the war, most of the Confucian printing woodblocks, which were in the initial stage of publication and preserved in the population-dense local capitals, were burnt during these wars. These situations explain well the reason for the scarcity of the printing woodblocks made prior to the Japanese invasion in 1592.

The 17th century was a period of publishing books anew led by the local governments of the dynasty. Various reasons existed for the take over of the initiative in book publishing, but the necessity of distributing ethic books for educating people expanded after the wars. However, the initiative of the local governments was handed over shortly to the scholar-officials in the local Confucian academies, which were established all around the country and the number exceeded 1,000 during its heyday. The main function of Confucian academies was to perform ancestral rites, but played additional roles including making textbooks for student education and leading the publication of individual works of the scholars relevant to the academies. Since then, the publication culture of Joseon enjoyed its glory days when it expanded further to clans of family and individuals.

Publishing books with woodblocks has both pros and cons. One of the biggest disadvantages was the huge cost and labor which resulted in publishing just one kind of book. Though the value of labor in Joseon would be extremely low compared to the contemporary era, making a piece of a printing woodblock took a week on average. The cost was high, too: compared to the price of rice, it would cost about 2,000 USD to make one piece of woodblock. Usually, at least 100 pieces of woodblocks were necessary to make a book, and in extreme cases, a book needed over 1,000 pieces. Hence, the production cost for making printing woodblocks was too high to be burdened by a single Confucian academy or a single clan. Also, the huge quantity was disadvantageous as additional costs were necessary for preservation. However, woodblocks have merits at the same time: they can be preserved over hundreds of years if preserved well, and time for typesetting and correction could be saved, which differed from printing with other types. Long periods of preservation meant reprinting was possible at any time to meet new demands, which is a comparative advantage over the types that were disassembled after publishing a book. Such advantages could compensate for the negative of the huge cost, and the Joseon Dynasty put more weight on the advantages and accordingly, woodblocks were settled on as an important medium for book publication.

At the end of the 19th century, lead types were introduced from the West and used for publication. Lead types had certain merits in terms of extremely lower

cost and shorter time required in publishing a large quantity of books. However, its usage was limited to printing government bulletins or the religious books such as the Bible necessary for the activities of the Western missionaries. Still, Joseon preferred to make books with traditional printing woodblock techniques, which was used up until the mid-20th century.

## 2. Details on Possession of

### (1) Kinds and Details of Yugyocheakpan

The official term of the records used by the Advanced Center for Korean Studies (ACKS) to register as a UNESCO Memory of the World in 2014 is (Confucian Printing Woodblocks in Korea). The records consist of 64,226 pieces of 718 different kinds, previously donated by Confucian academies and clans of families. The details for each kind are as follows:

<Table 1> Categorization of Yugyocheakpan

Type	Collected Writings	Neo-Confucianism	Genealogy	Study of Ritual	Historical Biography	Enlightenment /Moral Training	Geography	Miscellany	Total
Total	583	52	32	19	18	7	3	4	718
Percentage	81.2	7.2	4.5	2.6	2.5	1.0	0.4	0.6	100

The periodical categorization of the Confucian woodblocks is as follows:

<Table 2> Periodical Categorization of Woodblocks

Period	15 <sup>th</sup> Century		16 <sup>th</sup> Century		17 <sup>th</sup> Century		18 <sup>th</sup> Century		19 <sup>th</sup> Century		20 <sup>th</sup> Century		Unknown	Total
	Early	Late	Early	Late	Early	Late	Early	Late	Early	Late	Early	Late		
Total		1		6	13	20	43	77	126	156	237	2	37	718
Percentage		0.1		0.8	1.8	2.8	6.0	10.7	17.5	21.7	33.1	0.3	5.2	100

Among the 718 kinds of , the woodblocks of 『(排字禮部韻略)』 are the oldest, engraved in 1460 at Seonam Academy in Cheongdo, Gyeongsangbuk-do, and the latest are the woodblocks of 『Collected Writings of Master Sancheon (山泉先生文集)』 by Park Ju-jong(1813~1887) engraved in 1956. The forms of are similar as shown in the pictures of this work book. However, 『Gaseung Giryak of Andong Kim Clan』 in the No. 15 of <Category 4 Genealogy> is unique as four pages are engraved in a single surface of the woodblock. This form is often found in the printing woodblocks of Buddhist scriptures in Korea, which is called 4 blocks in 1 piece.

The size of each printing woodblock differs from each other, but overall, the

width ranges from 450 to 500 millimeters (mm), the height from 180 to 250 mm, the thickness from 20 to 30 mm, and the weight from 2,000 to 3,000 grams (g). The size of the surface [blank edge] where the contents of a book are engraved ranges from 400–450 mm in width and 190–230 mm in height. Each piece was engraved with four surfaces front and back, and each surface is made up of 10 lines on average. Each line is engraved vertically with 18 to 20 letters. The middle part of the woodblock has a title in the center marking the book title, table of contents of each volume, number of pages, and a fishtail which arranges the book in order. This is a unique feature of printing woodblocks produced since the Joseon era.

The wood for printing woodblocks must be from broadleaf trees. In the case study, it was found that acer mono had been used most as raw materials, followed by birch, ribbed birch, persimmon tree, wild cherry tree, horn beam, alder tree, white birch, linden tree, and ginkgo.

718 types of the Confucian Printing Woodblocks use different fonts. Hence, if all of the woodblocks are placed in order of time, the change of preferred fonts by era can be seen. In particular, the prefaces and epilogues carry the engraved handwritings of the authors, and the autographs, portraits, and various kinds of drawings are engraved within the woodblocks. Such features are one of the merits of printing woodblock which is hard for type printing to express.

## (2) Details on Possession of Yugyocheakpan

was not possessed by the ACKS from the first. Originally, these printing woodblocks were in the possession of producers such as Confucian academies, family clans, or descendants, but were donated to the ACKS later.

Preserving the cultural relics in their original forms in original locations would be ideal, but the donated printing woodblocks were moved to the ACKS for two reasons: the Korean War from 1950 to 1953 and the rapid industrialization of the country since the 1960s.

Prior to the Korean War, Gyeongsang and Jeolla Province preserved more printing woodblocks than other regions, but were damaged severely by the war. The large quantities and heavy weights of the printing woodblocks limited the evacuation unlike ancient books or documents. Hence, the printing woodblocks could not help but be left on site and an innumerable quantity disappeared due to the damage caused by the war.

Rapid industrialization of the 1960s also dealt a critical blow to the preservation of woodblocks. As mentioned above, woodblocks were mainly preserved in Confucian academies or head families of clans, most of which were located far from the residential areas of the time. Such phenomena stemmed from the foundation of the Joseon Dynasty. Then, residences of the scholar-officials were located on the outskirts of a town which is far from the populated area in present

criteria. Rapid industrialization led to the concentration of the local population in metropolitan areas, and accordingly, preservation sites of woodblocks were met with the critical situation of an absence of administrators.

As the woodblocks were left alone, a vicious cycle of theft and damage repeatedly occurred. To make matters worse, poor management caused the exposure of printing woodblocks to decomposition and termite damage which led to the loss of the function as woodblocks, and some of the stolen woodblocks were even smuggled overseas. Though the management has been improved, such problematic issues continue, unfortunately. Hence, scholars assume that only about 20 percent of the Confucian Printing Woodblocks of the Joseon Dynasty remain in Korea though more detailed research will be necessary. The ACKS recognized, though late, the severe damage of the woodblocks and came to wage a campaign called Collecting 100,000 Woodblocks since 2002, under the belief that preserving woodblocks by the ACKS would be a good alternative. At the same time, we launched a research program in 2004 to fully grasp how many woodblocks were left nationwide and it has continued for 10 years so far. The woodblock owners including Confucian academies and family clans reacted positively to the activities of the ACKS, and eventually, they donated approximately 65,000 pieces of woodblocks which are under the preservation and management of the ACKS.

In 2005, Jangpangak, a Woodblock Archives optimized to preserve woodblocks, was completed. Jangpangak is capable of preserving up to 100,000 pieces of woodblocks with facilities for isothermal–isohumidity, fire protection and anti–theft. Plus, security guards patrol 24hours for the safe preservation of the woodblocks.

In 2009, the ACKS, which had recognized the importance of printing woodblocks as archival culture, established the <Woodblock Research Center> to further enhance relevant research. The Woodblock Research Center is conducting research on the preservation and management of the printing woodblocks as well as their value as recorded heritage. In order to conduct research more efficiently, the Woodblock Research Center is holding symposiums to accumulate the research results. For example, we held the 4th International Conference with countries holding woodblock printing techniques. Furthermore, we agreed to organize an international council on research and preservation of woodblocks in March, 2015 with relevant organizations in China, Japan, and Vietnam, and preparatory works are under way.

### 3. Form of Producing Yugyocheakpan

(1) Production of Yugyocheakpan: Following Public Consensus

Scholars in the Joseon era did not aim at publishing their life–long academic

results in books but pursuing the truth in learning. Hence, publishing the Confucian Printing Woodblocks in the form of a book was not conducted by the author himself but by his disciples or descendants after a certain amount of time passed since his death. Such form was rooted in practice since the mid-15th century, under the reign of King Seongjong, the 9th king of the Joseon Dynasty.

Usually, the books were published after the death of the author: from a couple of years later to 10 to 50 years, or even 100 years later. However, not all of the Confucian Printing Woodblocks were published necessarily after the death of the author. For example, textbooks for children or edited genealogies were published when the author was alive. Meanwhile, all of the collected writings of individuals, which account for 80 percent of the Confucian Printing Woodblocks, were published after the author died. In this vein, the description of the production of the woodblocks will be focused on the publication of the collected works.

When a collected writing was published, the appropriateness was discussed by disciples, and then, a group for publication was organized. The group sent a circular informing of a gathering to publish the collection of works by Master X, and in preparation for the gathering, some figures were selected to be in charge of assuming certain works for the publication. In this process, however, not all of the author's works were included in the collection. For example, there was a selection process to reduce the overall cost for publication. The selection process was conducted by academic figures among the disciples, which selected the finest works of the author. This process was conducted not as a censorship on the contents, but with a strict moral criterion of neo-Confucianism to express the academic respect of disciples to the author by containing public contents without falsification in the book. The disciples formed a network of Public Consensus which linked the clan families, school ties, Confucian academies and local community. This fact was expressed as the publication of following Public Consensus of Confucian scholars in the application form for registration.

Such form of publishing individual works was a practice in the Southern Song Dynasty of China. Then, the process of gathering Public Consensus in publishing books of scholars was a must, but it disappeared in the Ming and Qing era, a contemporary of Joseon. During the Ming and Qing era, commercial publication was full-fledged already, and publishing a book when the author was alive became normal in China. Accordingly, the form of publication after gathering Public Consensus became a unique form of Joseon. Books published for commercial reasons often reflected the opinions of book dealers to promote the selling, and some important figures of the time also exerted influence on the contents of a book in China.

However, the purpose of the collected writings published in Joseon was not for sale but for inheritance of study of the author after he died. Furthermore, the process of gathering Public Consensus before the publication ensured the

objectivity of the contents. At the same time, the academic purposes of the authors of to maintain the order of society and materialize the society of community could be passed on to the disciples via collected writings.

### (2) Production of Yugyochoekpan: Community Publishing Network

The cost of producing Confucian Printing Woodblocks needed an illogically huge amount, but the amount of publication was small compared to the invested cost. The assumed price of 2,000 USD was calculated by comparing the price of rice of the time and that of the present, and by the criteria of today, approximately 4–5,000 USD would be needed to make a single piece of printing woodblock. Such expenses could not be borne by an individual or a descendant from the very beginning.

To bear such an economic burden, a network of Public Consensus linking clans, school ties, Confucian academies and a local community was formed in Joseon. The range of the local community encompassed a county and often expanded to a province or a country. The enormous expenses were shared by the members of the network who even joined in the process of edition, correction, and distribution of the books. This form of publication where the persons participating in the public network share the expenses of publishing an individual work was unique in Joseon, as it was not found in China with an advanced printing woodblock culture.

Partisan factions divided by political ideology existed during the Joseon era. Not only the officials in the central government but also the local officials and scholars had different partisan spirits. However, local communities had autonomous community organizations such as Hyanggyu (鄉規), a community of local Neo-Confucian scholars, or Donggye (洞契), a local cooperative organization among the ordinary people in a village. Though the political antagonism existed in the political arena, such partisan spirit was irrelevant in cooperating in the local community, and the persons irrelevant to the faction in the local community played major roles in the network of Public Consensus.

When the publication of a collection of works was decided after a discussion of Public Consensus, the members did not withdraw their funds and efforts for the book publication even though the author belonged to a different faction. This was one of the features in publishing a collection of works in Joseon society. The concept of community publishing presented in the application form can be seen as a unique form of publication of Joseon.

### (3) Production of Yugyochoekpan: Result of Collective Intelligence

is a record made by checking and monitoring the collective intelligence. The collective intelligence has been ubiquitous among human beings, which is even found among insects. Its successful realization depends on the degree of devoted



efforts exerted by the members of a group. The collective intelligence has double-sidedness: if it works poorly, the information might be manipulated and at the same time, it could be a threat to the outer beings. To make it work successfully, the diversity and the independence of the members of the collective intelligence shall be secured, and the results should be shared by members.

In this regard, is a typical result of collective intelligence, and an example of its successful function. In particular, the collective intelligence participated in the production of the Confucian Printing Woodblocks were continuously transferred to the disciples, and even being delivered up to date which can be seen as a particular case of the collective intelligence. Generally speaking, the collective intelligence relevant to the production of the Confucian Printing Woodblocks was formed since the late 16th century when Toegye Yi Hwang, a prominent neo-Confucian scholar of Joseon, played an active part. The disciples of Master Toegye were already formed when the master was alive, and the disciples fostered their disciples, and this continues even today. In other words, the members forming the public consensus to make were a group of disciples who wanted to publish the academic achievements of their master in the form of a book. These members were a part of the intelligence linked closely among each other but the result was borne by monitoring and checking of every member of the collective intelligence.

Checking and monitoring was a process to publish the academic achievements of the master in a book, but at the same time, it meant that the manipulation or the acts violating the social order were thoroughly controlled. In summary, all the books were made following the Public Consensus of the collective intelligence which controlled and monitored the process. In particular, making books using printing woodblocks which made it difficult to modify the contents can be seen as a will to exclude a possible manipulation from the very beginning.

A collective intelligence solely connected by study, not by political or religious motives, has lasted for more than 500 years, and exerting the function of control and checks can hardly be seen in any country or society except Korea.

## 4. Value as Record Heritage of Yugyochoekpan

### (1) Authenticity of Yugyochoekpan”

The concept of authenticity presented by UNESCO is understood as to prove the genuineness and identity of the candidate records.

First, the genuineness of is unquestionable. Joseon took extraordinary measures to preserve the Confucian Printing Woodblocks with relevant policies. For example, when a local official completed his term, the exact types and quantity of had to be confirmed in documentation from his successor. Furthermore, the status

quo of printing woodblocks preserved in the central and local governments should be reported to the central government often and at any time. In addition, the list of was made, though irregularly, to prevent possible damage of the woodblocks, and the damaged ones must be replaced. As such, Joseon made an all-out effort to preserve the Confucian Printing Woodblocks.

In addition, the Annals of the Choson Dynasty, the Diaries of the Royal Secretaria, and the Records of Daily Reflections, which were already registered with UNESCO's Memory of the World, have some records on the order of the dynasty in the making of Confucian Printing Woodblocks of a particular person, though such cases were limited.

When the Confucian Printing Woodblocks were made, all of the production processes were recorded in a publication diary (役日記). The records in the diary describe the publication process in detail: participants in the Public Consensus, expenses and labor invested in the production of the printing woodblocks, the production place, and even money paid to the workers for drinks and tobacco.

When the printing was finished, the Confucian Printing Woodblocks were moved to the Woodblock Archives in the academies or clans, and have been transferred to the present location owing to the preservation and management of the disciples and descendants, who donated the woodblocks directly to the ACKS. These woodblocks have applied for registration of the Memory of the World, and the agreement on registration submitted by the woodblock owners confirms the genuineness of the Confucian Printing Woodblocks.

Some researchers raised the possibility of the modification of contents, which was different from the author's intention, by Public Consensus while the Confucian Printing Woodblocks had already been made. However, the participants held to the principle of engraving the original and not adding content later. Hence, some of the original manuscript might have been excluded through a selection process, but the manuscript did not disappear. Such selection was made due to financial issues, and when such issues were addressed, the excluded manuscript was published later in the form of a sequel or annex. In other words, the publication of collected writings was decided by Public Consensus, but the original manuscript was not abandoned while still trying to maintain its identity.

A book might disappear eventually. In fact, some of the books using Confucian Printing Woodblocks are often not found. (Among the listed pictures, some of the books were reprinted with the relevant printing woodblocks as the original books printed with woodblocks were not found.) When a book is published using types, the typesetting shall be done from the first if the book is to be printed again. In this process, some of the types might be missing or the setting was wrong. However, if a book is published using printing woodblocks, the book can be published again without any error in characters. Therefore, different from the printed books, is almost a perfect original, and when it disappears, the recovery

of its original form is impossible. In conclusion, if disappears, the academic link that lasted for more than 500 years will be cut permanently.

## (2) Themes of Yugyochaekpan

In terms of production timing, there is a gap of around 500 years between the oldest and the most recent . Given the 718 kinds of woodblocks, the quality and quantity of each woodblock set would be diverse.

Accordingly, the value of shall be found from the overall context rather than age or the level of the contents. In other words, its value shall be found from the reasons for making the printing woodblocks by investing so much time and expense, and the appropriateness of effort made to permanently preserve the remaining printing woodblocks in the context of the whole .

The contents of vary a lot. The contents include the poems and proses revealing the literary talent of the author, the letters sent to and from the disciples, appeals containing the author' s political stance, prefaces and epilogues written for other scholars, writings reflecting himself and praising others, memorial writings, biographies, epitaphs, academic opinions of the author, diaries, and miscellaneous writings revealing academic tendencies, etc. are all included in . As it contains all of the writings of various authors, its quantity and quality is diverse according to the academic competence and experiences of an individual. Therefore, its common theme will be different based on the perspective of each reader.

One clear thing is that the most common theme of the various contents is Confucianism. Confucianism here refers to NeoConfucianism compiled in the Southern Song Dynasty and introduced later at the end of Goryeo. Though it was introduced in the mid-14th century in Korea, its study and materialization in the real world began in earnest from the 16th century. Since then, research on Neo-Confucianism was further developed resulting in the achievement of more refined and advanced logics than China, hometown of Neo-Confucianism.

Since the 16th century, Neo-Confucian scholars in Joseon advanced into the central politics and became the ruling power of the country. After that, they set people-centered politics as a foundation for the country, and arranged various kinds of systems to stabilize the agricultural economy which played a pivotal role in the economy of the dynasty. Spreading Village Code Movement was one of its representative policies. Village Code (or Hyangyak) was an autonomous norm that helped people with economic difficulties in the village and defended those who were unfairly treated.

Those who introduced such policy were the scholar-officials who took the initiative in production of since the 16th century. Though they could not overcome the limitations of the caste system, they tried constantly to exceed the restrictions.

At the end of the 16th century, Toegye Yi Hwang researched Neo-Confucianism deeply and came to introduce the concept of (敬: reverence), which emphasizes mutual respect and harmonious living among people. It is an ideology that stemmed from a basic proposition: Though people living in Joseon are divided into ruling and subjugated classes by cause, all of us have the same feature as human beings from heaven regardless of the cause.

The theme of is how to develop this concept of and apply it in reality, and it has been constantly applied to the Confucian Printing Woodblocks produced by scholars after the Toegye period. Sometimes, these scholars agreed with the opinions raised by Toegye and researched further, while other times, they criticized the methodology of Toegye and came up with alternatives. Though their methodologies were different, they had a common goal of materializing a community of humanity called society of great unity where human beings are respected and spreading this society throughout the country. constantly delivers such a trend. Though there were differences, the aim of the authors of the printing woodblocks was presenting the methodology to live as humans through learning.

However, the junior scholars, who produced , intentionally tried to maintain a common theme and pass it down to future generations by engraving it in the woodblocks. In Joseon, there was a saying that paintings and letters are imitable but printed books are uncorrectable. It meant that the junior scholars produced and preserved the Confucian Printing Woodblocks because they saw woodblocks as an unchanged symbol of learning. Furthermore, owning also meant the qualification as an academic successor of the senior scholars and membership of the collective intelligence who would further develop relevant research. The printing woodblocks were a prototype of Text Communication in which senior and junior scholars communicated with each other by printing books with woodblocks, if necessary, and preserving the printed books. Such activities are being repeated even now.

Junior scholars produced anew in the process of learning the teachings of senior scholars and developing it further. Such practice lasted from the 16th century when the Master Toegye was active until the middle of the 20th century, which resulted in the passing down of records called .

Joseon had two main schools: Yeongnam and Giho. These schools were the top political powers, too. Since the mid-17th century, the Giho School took initiative in the political arena, while the Yeongnam School focused more on conducting academic research and fostering junior scholars. can be seen as the academic result of the Yeongnam School. As they received the scholastic mantle of Toegye Yi Hwang of the late 16th century, the Yeongnam School is called the Toegye School, which has lasted to this day. Though there is a slight difference, their common research theme was to study and teach the methodology to live a decent

life as a human.

They saw the stabilized living of farmers, the foundation of the economy of Joseon, as the most fundamental, and made efforts to materialize their ideology. In this context, the Confucian Printing Woodblocks suggested the formation of a Confucian community regardless of class, and the followers tried to realize it in the real world. For further information, Korea tended to organize into communities when the country is on the verge of crisis or faced with economic difficulties. When foreign enemies invaded, Koreans organized volunteer militias. Redemption of National Debt Campaign in 1907 and Collecting Gold Campaign organized voluntarily during the financial crisis of 1997 were other examples. As seen from the records on the Saema-eul Movement, registered as a Memory of the World, the foundation of community played pivotal roles in the success of the movement. It is widely recognized that the Confucian spirit played important roles in the magical economic growth of the Korean economy. If, one of the symbolic heritages of such Confucian spirit, disappears, the symbol of pursuing a Confucian community set in the printing woodblocks will disappear. Also, the disappearance of will cause a huge loss in the intelligence history of human beings as the disappearance cuts the link to the collective intelligence that lasted for over 500 years.

## 5. Woodblock Archives and Accessibility of Yugyochoekpan

The Confucian Printing Woodblocks are stored at a Woodblock Archives called Jangpangak of the ACKS with optimized technology in its current situation. Jangpangak is made up of two buildings, and each building is capable of storing 50,000 pieces of printing woodblocks. The inner walls were built with paulownia trees as it can control the humidity, and the woodblocks are placed on the shelves made of pine trees in the order of donation.

When an owner donates to the ACKS, the woodblocks are processed to get rid of dust and other contaminants and fumigated in a separate facility. This process takes approximately 6 months, and the woodblocks are then stored at Jangpangak when this process is completed.

This Woodblock Archives is equipped with a fire protection system using gas. This system functions with an automated fire detector, and each shelf is equipped with a gas extinguisher to fight against small-scale fires. Also, sprinklers are installed to prepare for an external fire.

With an anti-theft system, an alert is sent to the central security office when the door or wall of the facility is touched without permission, and the security guards can arrive on site within one minute to check on the situation. CCTV cameras monitor the facility 24 hours a day, and security guards patrol the facility both day and night to prevent theft.

The inner side of the facility controls the humidity and temperature in accordance with the criteria set for cultural assets. Currently, the woodblocks are preserved in approximately 60 percent humidity and at a temperature of 18~19 degrees Celsius, settings which were obtained from previous trial and error.

In addition, regular fumigation is conducted once a year. Currently, methyl bromide (MeBr) is being used, but it will be changed to another medium in 2016 after consulting with the Korea Cultural Heritage Administration as MeBr causes severe air pollution.

is open to the public following its own set guidelines. Basically, the public is limited to the facility administrators and researchers, woodblock donors, and visitors who received prior permission. Prior permission will be given to those who contact via phone call or an official document a week prior to the visit. The permission will be canceled if it rains, and the visiting date will be arranged to another date.

Though visiting is limited to the persons who have passed through certain procedures, watching is always possible from the permanent exhibition room in the Museum of Confucian Culture, run by the ACKS. The exhibition room of 300 square meters is located on the 4th floor of the museum, and expansion of the space is under consideration. Currently, the blueprint for expansion is being prepared. The exhibited Confucian Printing Woodblocks are changed every quarter for a continuously changing exhibition. Furthermore, visitors may experience the printing process with an imitated printing woodblock prepared on the 1st floor of the museum which guarantees accessibility to .

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