



## Papermakers of Talas: The Forgotten Chinese Prisoners Behind the Islamic Golden Age

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### ABSTRACT

Battle of Talas has significant impact on Islamic golden ages. This paper will explore that important role of Chinese prisoners captured during the Battle in 751 CE who introduce papermaking technology to the Islamic world which helped the Muslims intellectual achievements of the Abbasid Dynasty. This study investigates how the transfer of this technology developed knowledge production and their spreading which helped in the rise of institutions like Bayt al-Hikma (House of Wisdom) to flourish. The questions that I will answer is how paper making technology help Muslims to achieve the golden age? How did papermaking support intellectual development during the Abbasid era? How did this technological exchange contribute to the activities of Bayt al-Hikma and the broader Abbasid Golden Age? Using a qualitative approach, the research will analysis the historical records, review scholarly sources, and compare cultural exchanges of knowledge between civilizations. The paper argues that the transfer of papermaking technology by Chinese captives was important to the Abbasid dynasty's intellectual achievements linking the technological innovation to societal and academic growth. This study talks about working together between different cultures and how sharing knowledge has changed world history.

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## 1. Introduction

As we know before Islam people make slave and sell or kill the was captive<sup>1</sup> but with the rise of the Prophet SAW introduce a new idea which show the importance of knowledge in the first battle of Badar when Muslim get victory and capture about 70 Non-Muslims, they give many condition to them if they want to be free like pay ransom teach Muslim children to read and write in exchange for their freedom. This policy was rooted in the Quranic emphasis on knowledge and education which was followed by the later Muslims as we see the same in Abbasid time when they asked the Chinese was captive to teach the papermaking to Muslims. The Abbasid dynasty 750–1258 CE is known as one of the periods when learning and knowledge grew the most in Islamic history. It was a time of progress in science, literature, philosophy, and art. One important event that helped these achievements was the start of papermaking technology that was learned from the Chinese prisoners of war captured after the Battle of Talas in 751 CE.<sup>2</sup> Which was fought between Abbasid Caliphate and the Tang Dynasty in which Chinese lose the battle and thousands of Chinese were capture as war captive.<sup>3</sup> The battle not only decided who controlled Central Asia but also helped spread culture and technology. The papermaking was already developed by the Chinese workers many years ago and that become very important when it spread to other parts of the words because it gives to people a new material that was cheap strong and easy to use which made it possible for knowledge to be produced in larger amounts and shared more widely with more people. The Abbasids are known for their great interest in focusing on intellectual and technological innovation. That's why they learn papermaking and established paper mills across the empire beginning in Samarkand and start a wide production of books and manuscripts. In this research we will investigate how the contributions of Chinese prisoners shaped intellectual development during the Abbasid Golden Age and specially the role of papermaking in supporting institutions like Bayt al-Hikma which was the center for translation and learning where people preserve and spread the knowledge from ancient civilizations and also added new ideas to it, helping it grows and reach more people. By exploring

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<sup>1</sup> Gilli-Elewy, Hend. "On the Provenance of Slaves in Mecca during the Time of the Prophet Muhammad." *International Journal of Middle East Studies* 49, no. 1 (2017): 164–68. <https://doi.org/10.1017/S0020743816001239>.

<sup>2</sup> Simpson, Marianna Shreve. *Speculum* 78, no. 4 (2003): 1250–52. <http://www.jstor.org/stable/20060933>.

<sup>3</sup> Schottenhammer, Angela. "Yang Liangyao's Mission of 785 to the Caliph of Baghdād: Evidence of an Early Sino-Arabic Power Alliance?" *Bulletin de l'École Française d'Extrême-Orient* 101 (2015): 177–242. <http://www.jstor.org/stable/26435102>.



these historical connections this paper shows the transformative impact of technological exchange on societal and academic growth.

## 2. Literature Review

There are many historical books which tell us about the Islamic history and also discuss the history of Abbasid period and the battle of talas some are Arabic and other are Chinese sources which talk about the talas battle among the important Chinese sources is the *Tangshu* which is the Official History of the Tang Dynasty and records significant interactions between the Tang empire and the Muslim world including the Battle of Talas. Arabic sources such as “*Tarikh al-Tabari*”<sup>4</sup> (The Universal History by al-Tabari) which also give us a detail account of this period. If we look at modern scholarship like Filippo Donvito’s article “The Battle of the River Talas” sheds light on the complexities of the battle and its consequences.<sup>5</sup> Also papermaking which played an important role has been studied too much In the context of China as discussed in the Jonathan Bloom’s book “Paper before Print: The History and Impact of Paper in the Islamic World” examines how the introduction of papermaking technology revolutionized Islamic societies. and in Seromata’s A Study on History of Paper and possible Paper Free World.<sup>6</sup> explores the broader historical impact of paper specially its Chinese origins and transmission to the Muslim world Also as Hugh Kennedy’s *The Prophet and the Age of the Caliphates* discusses the broader intellectual achievements of the Abbasid dynasty recognizes papermaking as one of the key innovations that supported the flourishing of knowledge.<sup>7</sup> The intellectual activities of Bayt al-Hikma or the House of Wisdom are explored in works such as *Four Great Libraries of Medieval Baghdad*, which detail the institution’s efforts to collect translate and preserve ancient knowledge.<sup>8</sup> And also discussed in “The Glory That Was Baghdad.” which highlights the institution’s role in preserving and

<sup>4</sup> *Al-Tabari, Muhammad ibn Jarir.\* Tarikh al-Rusul wa al-Muluk* (History of the Prophets and Kings). Translated by Franz Rosenthal. 39 vols. 2nd ed. Harvard University Press, 1989.

<sup>5</sup> Filippo Donvito, "The Battle of River Atas: Treacherous Auxiliaries," *Medieval Warfare* 5, no. 1 (2015): 22–27, published by Karwansaray BV, <https://www.jstor.org/stable/10.2307/48578413>.

<sup>6</sup> Aithal, Sreeramana. (2016). A Study on History of Paper and possible Paper Free World. *International Journal of Management, IT and Engineering (IJMIE)*. 6. 337-355. 10.5281/zenodo.161141.

<sup>7</sup> Hugh Kennedy, *The Prophet and the Age of the Caliphates: The Islamic Near East from the Sixth to the Eleventh Century*, 2nd ed. (London: Longman, 2004).

<sup>8</sup> Mackensen, Ruth Stellhorn. “Four Great Libraries of Medieval Baghdad.” *The Library Quarterly: Information, Community, Policy* 2, no. 3 (1932): 279–99. <http://www.jstor.org/stable/4301906>.



expanding classical knowledge and the rise of scientific knowledge.<sup>9</sup> and Margot Badran's *Feminism in Islam*<sup>10</sup> discuss how Islamic practices have been shaped by cultural influences across different regions. However, while these studies offer valuable cultural perspectives, they often lack specific attention to critical questions such as how Bayt al-Hikma achieved such extraordinary success the specific roles played by Chinese prisoners captured after the Battle of Talas and how technological contributions like papermaking fundamentally changed the course of world history. While existing literature addresses the intellectual achievement of the Abbasid era, While the history of Abbasid caliphate, Chinese history, their developments, the war of Talas, and role of Bayt al-Hikma been widely studied but no one give attention to the contributions of Chinese prisoners in introducing papermaking technology which become the bast for achieving golden age. This research bridges the gap by linking this technological exchange to the intellectual achievements of the Abbasid dynasty. By exploring how the technology of paper maker come to Baghdad and help the translation movement and by linking this technological exchange to the activities of Bayt al-Hikma and the broader Abbasid intellectual movement which lead to the golden age of Islam.

### 3. The Battle of Talas and the Start of Papermaking

One of the most important but often forgotten events in the history of Islamic civilization is the Battle of Talas in 751 CE. This battle took place near the river Talas, close to the modern border of Kazakhstan and Kyrgyzstan, where the Abbasid forces faced the Chinese Tang army.<sup>11</sup> The Abbasids sent a strong force under the leadership of Ziyad ibn Salih to confront the Chinese general Kao Sien-chih, who was retreating through the Pamirs. Confident of victory, the Chinese turned back and met the Arab army at the banks of the river Talas, near the city of Taraz. This fierce and well-documented battle, known in some sources as the Battle of Atlakh, ended in a decisive defeat for the Chinese army.<sup>12</sup>

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<sup>9</sup> Goodwin, Jason. "The Glory That Was Baghdad." *The Wilson Quarterly* (1976-) 27, no. 2 (2003): 24–28. <http://www.jstor.org/stable/40261181>.

<sup>10</sup> Margot Badran, *Feminism in Islam: Secular and Religious Convergences* (Oxford: Oneworld Publications, 2009).

<sup>11</sup> Abdul Ahad Hannawi, "The Role of the Arabs in the Introduction of Paper into Europe," *MELA Notes*, no. 85 (2012): 18, <https://www.jstor.org/stable/23392489>

<sup>12</sup> Filippo Donvito, "The battle of river talas: Treacherous Auxiliaries," *Medieval Warfare* 5, no. 1 (2015): 22–27, <https://www.jstor.org/stable/10.2307/48578413>



The real importance of this battle was not just the military, it was intellectual. After the Chinese defeat, many Chinese prisoners were taken by the Abbasids. Among these prisoners were skilled papermakers, and this became the beginning of a revolution in Islamic knowledge and culture. These Chinese artisans were taken to Samarkand, where they introduced the technology of papermaking to the Islamic world. As many scholars explain like Abdul Ahad Hannawi who said that In the year 751 CE, in the city of Samarkand in Central Asia, the secret of how to make paper was shared by some Chinese prisoners of war who were skilled papermakers.<sup>13</sup> And other confirms it like Filippo Donvito who said Some of the Chinese prisoners taken to Samarkand were skilled in making paper. They were the ones who started the first paper factories there, and soon after, in the region of Khorasan. This is how the Arabs first learned the art of making paper.<sup>14</sup> These papermakers had great skills. In fact, Chinese papermaking had been a state secret in China for centuries. It had likely been controlled by the royal court and passed only to trusted officials. The Chinese probably kept paper-making a secret and only allowed the government to control it, because it was first invented by an important official in the royal court.<sup>15</sup> Before this time, the Muslim world mostly used papyrus and parchment, which were expensive and difficult to produce. But thanks to the knowledge from these prisoners, a paper mill was established in Samarkand, and this started a new era of affordable writing material in the Islamic world. According to one account it is stated that “two Chinese prisoners captured in the Battle of Talas and they shared the secret that how to make paper, which led to the first paper mill being started in Samarkand in the Islamic world.<sup>16</sup> The first Islamic paper was made from linen rags and plant Fibers this was the method based on Chinese techniques. However, in the Islamic world, the technology evolved. New materials like flax and hemp were used instead of the original Chinese ones like tree bark and fish nets The first paper made from linen cloth was produced in Samarkand in the year 751. The people who made it were Chinese workers, who had already known how to make paper from the inner bark of plants and

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<sup>13</sup> Hannawi, “The Role of the Arabs in the Introduction of Paper,” 17.

<sup>14</sup> Donvito, The battle of river talas: Treacherous Auxiliaries,” 24.

<sup>15</sup> Dard Hunter, *Papermaking: The History and Technique of an Ancient Craft* (New York, 1943), 24–26.

<sup>16</sup> Padmanabha Shenoy and P.S. Aithal, “A Study on History of Paper and Possible Paper Free World,” *Cannyldeas*, vol. 6, no. 1 (January 2016), 341 <https://doi.org/10.5281/zenodo.161141>.



trees as early as the years 649 to 683.<sup>17</sup> In the year 794 or 795, the second paper factory was built in Baghdad, and from there, papermaking began to spread to other places.

In Samarkand, the way paper was made began to change. They started using materials like flax and hemp because they were easy to find, and the water they used was very clean.<sup>18</sup> This innovation made paper cheaper and easier to produce, and this had a huge effect on the intellectual world. Paper spread quickly from Samarkand to other Islamic cities like Baghdad, Basra, and Damascus. In 794 or 795 CE, the Abbasids built the first official paper factory in Baghdad, marking the spread of paper westward. Western countries did not know about paper until after a paper factory was built in Baghdad around the year 794 or 795. From there, the Arabs spread the knowledge of papermaking to the West.<sup>19</sup>

This new technology gave the Islamic world a huge advantage in education, science, administration, and religion. Paper made it possible to translate and copy texts quickly, build large libraries, and write original works. The Abbasid dynasty, especially under Caliph al-Ma'mūn, supported scholars and translators through institutions like Bayt al-Hikma (House of Wisdom). Without paper, this golden age of knowledge would not have been possible.

As one author puts it that the year 751 CE was a very important moment in the history of paper. That was when papermaking began to spread from the East, and the Arabs became the ones who would carry this Chinese invention to the Western world.<sup>20</sup> The Battle of Talas was not just a military event it was the beginning of a knowledge revolution. The Chinese papermakers, captured as prisoners of war, introduced a new technology that transformed Islamic civilization. Their skills helped build the foundation of the Abbasid Golden Age, allowing the Muslim world to become a center of learning and science. These forgotten prisoners from Talas left a lasting impact not through weapons, but through paper.

#### **4. Intellectual Achievements in the Golden Age**

One of the most important but often overlooked foundations of Abbasid intellectual achievements was the introduction of papermaking into the Islamic world, brought by

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<sup>17</sup> Shenoy and Aithal, "A Study on History of Paper," 3, no. 1 (September 1888): 341. <https://www.jstor.org/stable/25581191>

<sup>18</sup> Abdul Ahad Hannawi, "The Role of the Arabs in the Introduction of Paper into Europe," *MELA Notes*, no. 85 (2012): 19, <https://www.jstor.org/stable/23392489>.

<sup>19</sup> "The History of Paper," *The Connoisseur* 337-355

<sup>20</sup> Hannawi, "The Role of the Arabs in the Introduction of Paper," 17.



Chinese prisoners after the Battle of Talas in 751 CE. The spread of paper allowed for easier writing, copying, and preserving of knowledge, making possible the explosion of scholarship in the Abbasid Golden Age. So, the translation movement and institutions such as *Bayt al-Hikma* (The House of Wisdom) played a foundational role in shaping the intellectual landscape of the Abbasid Caliphate, ultimately contributing to what is known as the Islamic Golden Age. By preserving, expanding, and disseminating knowledge from earlier civilizations, the Abbasids fostered an unprecedented flourishing of science, literature, and philosophy. The Establishment of Bayt al-Hikma and the Importance of Translation is evident in the institutionalized translation efforts through the creation of Bayt al-Hikma in Abbasid period. The success of Bayt al-Hikma was made possible by the mass production of paper, which began in Samarkand and soon reached Baghdad, where paper mills provided scholars with the materials needed to copy, translate, and store vast amounts of knowledge. Arab scholars translated important books on science and philosophy from Greek, Syriac (used by Eastern Christian scholars), Pahlavi (the scholarly language of ancient Iran), and Sanskrit into Arabic. This translation activity reached its height when the Abbasid Caliph Al-Mamun set up the "House of Wisdom" (Bayt al-Hikma) in Baghdad in 830. Because of this, Arabic became the main language of science for many centuries and helped save knowledge that might have been lost.<sup>21</sup> There were many notable Translators and Compilers in the translation movement involved numerous renowned scholars who built on the legacy of earlier figures like Abu Sahl b. *Naubaht* (d. 808), *Aban al-Lahiqi* (d. 815), Sahl b. Harun (d. 830) who was even called the "Buzurgmihr of Islam" and 'Ali b. 'Ubaida became the next generation after Ibn al-Muqaffa' and continued his work by selecting old Persian books to translate.<sup>22</sup> Sahl, notably, was not limited to translation: Sahl didn't just collect and translate old Persian and Indian writings he also wrote his own book, copying the style of *Kalila wa Dimna*. The only one of his books that still exists today is a writing that praises being greedy.<sup>23</sup> The important thing is to preserve the libraries or catalogue so it will Expand Knowledge and this was the key feature of the intellectual activity in the

<sup>21</sup> Azeem Majeed, "How Islam Changed Medicine: Arab Physicians and Scholars Laid the Basis for Medical Practice in Europe," *BMJ: British Medical Journal* 331, no. 7531 (December 24–31, 2005): 1486–87, <https://www.jstor.org/stable/25455732>.

<sup>22</sup> Mohsen Zakeri, "'Ali ibn 'Ubaida ar-Raiḥānī: A Forgotten Belletrist (adīb) and Pahlavi Translator," *Oriens* 34 (1994): 89, <https://www.jstor.org/stable/1580507>.

<sup>23</sup> Ruth Stelhorn Mackensen, "Four Great Libraries of Medieval Baghdad," *The Library Quarterly: Information, Community, Policy* 2, no. 3 (July 1932): 279–99, <https://www.jstor.org/stable/4301906>.



Abbasid era was the formal organization of knowledge. One of the best examples is the comprehensive bibliographical work *al-Fihrist*, which helps us estimate the vast output of intellectual activity Flügel's version of the *Fihrist* lists 55 books, *Ṭagaddud's* version lists 56, *Yāqūt* lists 52, *aṭ-Ṣafadī* also lists 52, and *Ismā'īl Pasha* lists 53. *Ḥwānsārī* mentions 18. When we put all these sources together, the total number of books comes to at least 60.<sup>24</sup> If we look to specific books and translated texts we can find key works were either translated or written during the Abbasid period, many of which became cornerstones in fields such as medicine, astronomy, literature, and philosophy for example in the field of Mathematics and Astronomy like Al-Khwarizmi was the writer of a book named "*Hisab al-djabr wa-al Muqabala*"<sup>25</sup> on algebra and created an almanac that people trusted and used for a long time.<sup>26</sup> And in the field of medicine there were many books were translated and written in addition to the ones written by the Greeks. Two of the most popular were al-Rāzī's *al-Ḥāwī fī al-ṭibb* (The Comprehensive Book on Medicine) and Ibn Sīnā's *al-Qānūn fī al-ṭibb* (The Canon of Medicine).<sup>27</sup> And it that time every field of life was studied and explored by Muslim scholars specially in *bait al hikmat* and if we explore the Ancient Philosophical and Scientific Works we can find many examples The *Fihrist* mentions a medical book called *Pandects (Kitāb al-Kunnāsh)*, originally written in Syriac by a priest named Aaron (Ahrun). A doctor named Māsirjīs translated it into Arabic and added two more chapters to it.<sup>28</sup> At that time, scholars worked not only on Islamic religious texts but also across scientific fields, and also worked on other religions for example One of the religion is Zoroastrianism sacred book was unified which is called Avesta this book teaches good moral values and supports them. These values were collected by 'Abdallāh b. al-Muqaffā' in his book *al-Adab al-Kabīr* and by 'Alī b. 'Ubaida in his book *al-Maṣūn*.<sup>29</sup>

<sup>24</sup> Zakeri, " 'Alī ibn 'Ubaida ar-Raiḥānī, A Forgotten Belletrist (adīb) and Pahlavi Translator," 90.

<sup>25</sup> Anderson, S.E. "Worldmath Curriculum: Fighting Eurocentrism in Mathematics." *The Journal of Negro Education* 59, no. 3 (1990): 348–59. <https://doi.org/10.2307/2295569>.

<sup>26</sup> Mackensen, "Four Great Libraries of Medieval Baghdad," 285.

<sup>27</sup> Gary Leiser, "Medical Education in Islamic Lands from the Seventh to the Fourteenth Century," *Journal of the History of Medicine and Allied Sciences* 38, no. 1 (January 1983): 48–75, <https://www.jstor.org/stable/24633386>.

<sup>28</sup> Ruth Stelhorn Mackensen, "Arabic Books and Libraries in the Umayyad Period," *The American Journal of Semitic Languages and Literatures* 54, no. 1/4 (October 1937): 41–61, <https://www.jstor.org/stable/529252>.

<sup>29</sup> Zakeri, " 'Alī ibn 'Ubaida ar-Raiḥānī: A Forgotten Belletrist (adīb) and Pahlavi Translator, 91



In the field of history Hisham ibn Muhammad ibn as-Sa'ib al-Kalbi (d. 819), a well-known historian and genealogist, who collected and preserved Arab history and tribal knowledge. His work helped build the historical and cultural memory of the early Islamic world.<sup>30</sup> In alchemy and early chemistry, Jabir ibn Hayyan (d. 815), known as the father of chemistry, wrote hundreds of treatises on topics like alchemy, medicine, and numerology. His work introduced experimental methods and provided the first known classification of chemical substances.<sup>31</sup> In philosophy, al-Kindi (d. 873) became the first major Arab philosopher. He wrote over 200 treatises on subjects including logic, metaphysics, psychology, medicine, astronomy, and optics. He played a key role in adapting Greek philosophy to the Islamic world. Another major figure, al-Farabi, blended Platonism, Aristotelianism, and Sufism, and wrote important works in politics, metaphysics, and ethics.<sup>32</sup> In medicine, al-Razi authored over 200 medical books, including *al-Hawi*, *Kitab al-Mansoori*, and *al-Judari wal Hasibah*. He was one of the earliest to distinguish between diseases like measles and smallpox, used alcohol in treatment, and wrote medical works that became part of European curricula. He is also considered the father of pediatrics and ophthalmology.<sup>33</sup> In music Ishaq ibn Ibrahim al-Mawsili (d. 846), a famous musician and music theorist, known for refining and developing Arabic music. He was active in the Abbasid court and helped shape music as both an art and a science.<sup>34</sup> Mostly scholars wrote in Arabic and translate other languages to Arabic but some scholar like 'Alī ibn 'Ubaida ar-Raiḥānī who was familiar with the Pahlavi language he wrote many books have Persian titles. Like *Adab Dawansī*, *Rusand'l-Namak*, *Kai-Luhrash*, *MihrAdar Gusnasp*, are in Persian, not Arabic. This shows that he had a strong knowledge of Persian culture and literature and that he likely worked with or translated from Persian sources.<sup>35</sup> Ibn an-Nadīm puts this book at the top of ar-Raiḥānī's list of works. Some of the books mentioned include: *al-Adab al-Kabīr* by Ibn al-Muqaffa', *al-Maṣūn* by 'Alī ibn 'Ubaida, and other titles like *Mahadargīs*, *Mihr-Adaryusnas*, *Mihr Azad wa-Guswnasw*, and *Mahrad-u-ḥasīs*.<sup>36</sup> Through institutions like *Bayt al-Hikma*, the

<sup>30</sup> az-Zamakhsharī, *Rabb al-Abrār wa-Nuṣūṣ al-Akḥbār*, 4 vols. (Baghdad, 1976–82), 4:93.

<sup>31</sup> Anjum, Saba; Significance of Bayt Al-Ḥikmah in Development of Scientific Work; p. 48.

<sup>32</sup> Adamson, Peter; "Al-Kindi and the reception of Greek philosophy"; pp. 32–51.

<sup>33</sup> Modanlou, H. D.; "A tribute to Zakariya Razi (865 - 925 AD), an Iranian pioneer scholar"; pp. 673–7

<sup>34</sup> Henry George Farmer, "Greek Theorists of Music in Arabic Translation," *Isis* 13, no. 2 (February 1930): 325–33

<sup>35</sup> Zakeri, "'Alī ibn 'Ubaida ar-Raiḥānī: A Forgotten Belletrist (adīb) and Pahlavi Translator, 81.

<sup>36</sup> Ibad 91



Abbasid Caliphate supported the systematic translation, preservation, and expansion of human knowledge. Scholars translated vital works in medicine, mathematics, philosophy, and ethics from Syriac, Pahlavi, Greek, and Sanskrit. They also composed original treatises and literary works. The cumulative result of these efforts was the elevation of Arabic to the foremost language of science and scholarship for centuries, laying the intellectual foundation not just for Islamic civilization, but also influencing the Latin West in the later European Renaissance. All of these achievements from translations to original writings in science, medicine, music, and philosophy were made possible by the widespread availability of paper. Without the papermaking techniques brought by Chinese artisans, such a large-scale intellectual transformation would have been nearly impossible. The combined efforts of these translators, authors, and libraries effectively transformed the Abbasid world into the intellectual center of the medieval world, big libraries were built across the city, and scholars who had escaped from the Byzantine Empire were welcomed. The *Bayt al-Hikmah* became the main place for research in many fields of science. The Abbasid wanted to promote knowledge and had the money and resources to do it. They also found people who could speak different languages to help with translation work. The House of Wisdom had a library, a translation office, and an astronomy center. It was run by scientists, librarians, and workers from different religions and cultures. It also introduced the system of organizing books into topics and categories.<sup>37</sup> achieved what historians now refer to as the Islamic Golden Age. Sadly, this great center of knowledge was destroyed in 1258 CE when the Mongols attacked Baghdad, and many valuable books and writings were lost forever.

## 5. Discussion

The journey of papermaking from China to Baghdad through the hands of Chinese War prisoners captured in the battle of Talas show that how this unexpected moment in history can lead to great transformation because the battle was not to get the technology of papermaking from them but it was a reward. But these prisoners are almost ignored in historical record that they had a skill that helped create one of the most advanced centers of knowledge in the medieval world.

These skills of papermaking came at a time when the Islamic world was already expanding their knowledge in science, philosophy, and literature. But the missing

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<sup>37</sup> Kaviani, Rahim; *The Significance of Bayt al-Hikma in Early Abbasid Caliphate*; p. 1275.



thing was a cheap, reliable, and widespread medium for preserving and sharing knowledge. And the Chinese prisoners completed that need by revealing the Chinese state secret of paper making. And because of its low cost and strength replaced parchment and papyrus, and became the ideal material for books, government records, and scholarly works.

The impact of this change was almost immediately visible. Like the translation movement in Baghdad succeeded as they translated many languages like Greek, Persian, Indian, and Syriac into Arabic and copied on paper. Scholars like al-Khwarizmi, al-Razi, and Ibn Sina were not only able to write their pioneering works but also guarantee that their ideas could spread throughout the empire and beyond. And Institutions like Bayt al-Hikma became centers of knowledge production, thanks to the accessibility of writing material. Paper mills in Baghdad and other major cities kept this system running, turning knowledge into a renewable resource.

It was not only about preserving the old knowledge, but it was the time of producing new knowledge by numbers of scientists from many countries who worked in *bait al hikma*. The culture of reading, writing, and debate expanded. Schools, libraries, and research centers emerged, supporting scholars from various backgrounds and faiths. Eventually, this intellectual wealth reached Europe, influencing the scientific and cultural awakening known as the Renaissance.

## 6. Conclusion

The story of the Chinese papermakers captured at Talas is a reminder that history is not only shaped by emperors or armies, but sometimes by quiet, skilled individuals whose work changes the world. The Abbasid Golden Age would not have reached its full potential without paper, and paper would not have arrived when it did without the contribution of these forgotten artisans. This research highlights that the power of knowledge lies not only in ideas but in the tools that carry them. The papermakers of Talas gave the Islamic world the ability to write, copy, share, and store wisdom on a scale never seen before. Their work helped build libraries, support scholars, and spread learning across continents. Their legacy is not written on monuments but on paper. And through that paper, they became a part of one of the greatest intellectual achievements in world history. The Abbasid dynasty owes much of its brilliance to a moment of cultural exchange born from war, but transformed into wisdom. The Chinese prisoners of Talas were not just captives of a battle—they were the quiet creators of a golden age.



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