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Abstract

Samuel Wells Williams was a well-known missionary, diplomat and sinologist. In his whole life, he never gave up his pursuit on botany, however, there was not much attention to his botanical accomplishment. Williams had a lifelong friendship with Asa Gray, who was the most distinguished American botanist in the 19th century. And because of the contact, Williams related with botany indeed. In order to figure out their friendship and influence, this article is going to use the correspondences between Williams and Gray, besides the related publications. This article first presents Williams' lifelong friendship with Gray, then, accounts for the plants and seeds which Williams gave to Gray. Finally, it will demonstrate the influence of Gray towards Williams' contact with Ko Kun-hua, who was the first professor of Chinese descent at Harvard University.

1. Background

In the early 19th century, before the opening of China and Japan, Americans relied upon missionaries, merchants and travel writings to obtain knowledge of the Far East. Samuel Wells Williams (1812-1884), was one of the Americans who was sent to China at that time.

Williams was sent to Canton by the American Board of Commissioners for Foreign Missions (ABCFM) to take charge of the printing press in 1833. He spent 43 years of his life in China. Meanwhile, he was appointed the Chief Interpreter of the expeditions to Japan by Commodore Matthew Calbraith Perry (1794-1858). As a turning point, Williams, then, was appointed the Chargé d'affaires of America in Beijing. After Williams retired and went back to America, he became as the first sinologist of Chinese Language and Literature at Yale College (now Yale University). And in 1883,

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Williams republished his great work, the second edition of *The Middle Kingdom*, before he passed away in the following year.

Williams's reputation was always related to his relationship with China and his interpretation work with the Perry Expeditions. Although Williams pursued botany his whole life, there was not much attention to his contributions to botany.¹ According to Williams, he "had about fixed his mind upon the career of a botanist"² between the end of 1831 and the beginning of 1832. Even after he went to China, he continued to acquire plants specimens, not only in China and Japan but also the ways along his journey.³ Furthermore, Williams has written some articles about the natural history of China in *The Chinese Repository*,⁴ as well as *The Middle Kingdom*.⁵ Moreover, Williams had acquaintance with many botanists. Among them, Williams had the longest friendship with Asa Gray (1810-1888), the most distinguished American botanist in the 19th century. Williams sent not just numerous specimens, but also shared his opinion about the Chinese with Gray. On the other hand, Gray, especially in their late life, had persuaded Williams to contact the first Chinese Professor of Harvard University. However, there was not enough descriptions about Williams and botany, much less his lifelong friendship with Gray.

In order to elucidate the relationship and influence between Williams and Gray, this article uses the correspondences between Williams and Gray, in addition to related publications. The first part is from the correspondences of

1 Gu Jun gave a detailed explanation of Williams' botanical dream. See, Gu Jun 顧鈞 "Zhiwuxuejia zhi meng 植物學家之夢 [A dream towards botanist]," *Wei San-wei yu Meiguo zaoqi hanxue 衛三畏與美國早期漢學* [Samuel Wells Williams and early American Sinology] (Beijing: Waiyu jiaoxue yu yanjiu chubanshe, 2009), pp. 12-22.

2 Frederick Wells Williams, *The Life and Letters of Samuel Wells Williams* (New York and London: G. P. Putnam's sons, 1889), p.38.

3 Before Williams, there were Michal Piotr Boym's (1612-1659) *Flora Sinensis* (1656) for the explorations of Chinese plants, Caroli Petri Thunberg's (1743-1828) *Flora Japonica* (1784) and Philipp Franz Balthasar von Siebold's (1796-1866) *Flora Japonica* (1835-1870) in 30 Volumes for the investigations for the Japanese plants. These works were important for Williams to have his botanical accomplishments.

4 In the Index of *The Chinese Repository*, the editors divided all the articles into 30 parts. There was a classification with 35 articles which called "Natural History." Among that, 17 articles are from Williams. See, "Index," *The Chinese Repository*, Vol.21 (Canton, 1851.)

5 Chapter six is "Natural History of China." In the first version, Williams used 56 pages for his description. But in the second version, he rewrote the almost parts and increased to 84 pages. See, S. Wells Williams. *The Middle Kingdom*, Vol. 1 (New York: Wiley and Putnam, 1848), pp.240-295; Vol 1, 2nd ed. (New York: Charles Scribner's Sons, 1883), pp.296-379.

Samuel Wells Williams family papers,⁶ which are preserved in Yale University's Manuscripts and Archives. Another part is from the correspondences of Asa Gray correspondence files,⁷ and the Jane Gray autograph collection,⁸ which are both preserved in the Gray Herbarium at Harvard University.⁹ This article first discusses Williams' lifelong friendship with Gray, then, accounts for the plants and seeds which Williams gave to Gray. Finally, it will illustrate the influence of Gray towards Williams' contact with Ko Kun-hua 戈鯤化 (1836-1882), who was the first Chinese professor at Harvard University. This article will not analyze Williams' botanical writing or theory, but through related publications and correspondences, aims to investigate their lifelong friendship and influence, a topic which has not been explored in the previous scholarship on Williams. It will also provide evidence that Williams was an amateur botanist for the future research.

2. Williams' lifelong friendship with Gray

Williams and Gray were both influential and productive. However, they differed not only in their fields of specialty, but also in the physical distance of their working place. Williams stayed in China over half of his life, while Gray always worked between Europe and American. Before Williams was sent to China, however, he had already built his relationship with Gray. There were three types of relationships between Williams and Gray: (1) classmate,¹⁰

6 Most of the letters that preserved in "Samuel Wells Williams family papers," had been published. See, Miyazawa Shinichi 宮澤真一, Gu Jun 顧鈞, eds. "Samuel Wells Williams family papers," in *Mei guo ye lu da xue tu shu guan cang wei san wei wei kan wang lai shu xin ji* 美國耶魯大學圖書館藏衛三畏未刊往來書信集 [Unpublished letters from and to Samuel Wells Williams in Yale University Library, U.S.A.], 23 Vols. (Guilin: Guang xi shi fan da xue chu ban she, 2012.)

7 The correspondences have been open access in "Harvard College Library Digital Imaging Group" in 2014: <https://listview.lib.harvard.edu/lists/hollis-14011768>. Then open access in "Biodiversity Heritage Library" in 2017: <https://doi.org/10.5962/bhl.title.128030>.

8 The correspondences have also been open access in "Harvard College Library Digital Imaging Group" in 2014: <http://nrs.harvard.edu/urn-3:FMUS.GRA:12274653>.

9 However, most of the letters from Gray to Williams were lost. In Williams' whole life, he has moved to different places for many times. From New York to Canton, then Macao, and New York, Canton, moved to different places for Shanghai, Peking, last to New Haven. In count, he moved at least seven times. It is reasonable to indicate that, Williams might have lost part of Gray's letters when he was moving, or Gray just did not know Williams' address because Williams had moved so many times. On the other hand, Williams suffered a disaster in the end of 1856. That year, the ABCFM printing office in Canton was on fire, the printing tools, the personal property, the collection of books, etc., had been burned. Gray's letters were included probably.

10 Robert Lucky Bachman, *A sermon delivered in the First Presbyterian Church, Utica,*

(2) friend,¹¹ (3) teacher-student.¹² In the “Descriptions of the botanical specimens,” Gray called Williams “my early friend,”¹³ which meant that they certainly had a friendship. However, as the descriptions below, Williams and Gray were unable to have the “classmate relationship” and “teacher-student relationship.” About their friendship, it should be described from their father first.

William Williams (1787-1850), father of Williams, was a master printer and journalist, who had even joined the War of 1812 as Captain of a company of volunteers. He was a prominent man in Utica at that time.¹⁴ On the other hand, Moses Gray (1786-1845), father of Gray, was just a tanner and currier. Although he later became a farmer, apparently, he was not as famed as William Williams. But to Gray, he was born in Sauquoit nine miles south of Utica,¹⁵ where both belonged to Oneida County, New York. Before 1833, Gray lived close to Utica. Although the parental relation of Williams and Gray was indistinct, considering the physical distance of their living places, Williams and Gray might have had their first contact as early as their childhood (1810s) or youth (1820s).

The *Edinburgh Encyclopedia*, a book series edited by David Brewster (1781-1868), changed Gray’s life. Anderson Hunter Dupree (1921-), the author of *Asa Gray, 1810-1888*, conjectured that, “William Williams of Utica, N. Y., whose edition Gray probably read, was engaged in a serial publication of the *Encyclopedia* in the 1820’s.”¹⁶ Following Dupree’s viewpoint, regardless of whether the edition was published in the 1810s or 1820s,¹⁷ it could be

N.Y. upon the life and labors of Samuel Wells Williams, LL. D. (Utica, N. Y.: Press of Curtiss & Childs, 1884), p. 7.

- 11 Thomas W. Seward, “Memorial of S. Wells Williams,” *Transactions of the Oneida Historical Society, at Utica, 1885-1886* (1886), p. 80.
- 12 Gu Jun, *Wei San-wei yu Meiguo zaoqi hanxue* 衛三畏與美國早期漢學, pp. 15, 34.
- 13 Order of the government of the United States, *Narrative of the Expedition of an American Squadron to the China Seas and Japan, performed in the years 1852, 1853, and 1854, under the command of Commodore M. C. Perry, United States Navy.* (Washington: Beverley Tucker, Senate Printer, 1856), p. 305.
- 14 About the life and achievements of William Williams, see, John Camp Williams, *An Oneida Country printer, William Williams: printer, publisher, editor, with a bibliography of the press at Utica, Oneida Country New York, from 1803-1838* (New York: Charles Scribner’s Sons, 1906.) Also, Madeleine B. Stern, *William Williams: pioneer printer of Utica New York, 1787-1850* (Charlottesville, Va.: Bibliographical Society of the University of Virginia, 1951.)
- 15 James Dwight Dana, “Asa Gray,” *American Journal of Science*, Series 3, Vol. 35 (March 1888), p. 181.
- 16 A. Hunter Dupree, *Asa Gray 1810-1888* (Cambridge, Mass.: The Belknap Press of Harvard University Press, 1959), p. 427.
- 17 William Williams and his partner A. Seward (?-?) has received the Philadelphia Edition of the *Edinburgh Encyclopedia* since 1814. John Camp Williams, *An Oneida*

described that there was an indirect influence from William Williams to Gray. Anyhow, Gray began an interest in botany from the article "Botany" in *Edinburgh Encyclopedia* during the winter of 1827.¹⁸ After that, Gray soon "bought Amos Eaton's *Manual of Botany*, pored over its pages, and waited for spring."¹⁹ Amos Eaton (1776-1842) was the second considerable person towards Williams and Gray. Eaton, an American botanist and educator, was born at Chatham, Columbia County, New York on 17th May 1776, then graduated from Williams College in 1799. In 1824, Stephen Van Rensselaer (1764-1839) established a school in Troy, New York, which was named Rensselaer Institute (now Rensselaer Polytechnic Institute), and appointed Eaton to be a teacher, "in order to encourage the application of science to common purposes."²⁰ In Williams' case, although he was interested in botany, he did not aim to be a botanist at the beginning. In November 1831, the death of Sophia Wells Williams (1791-1831), Williams' biological mother, "hastened his decision as to the choice of a higher school, and not many days after the sorrowing little band had followed their counsellor and guide to her grave, Wells gathered his few clothes and precious collections of plants and stones and departed by canal for Troy."²¹ In this school, Williams was under Eaton's instruction. At the end of his first half year, he "had about fixed his mind upon the career of a botanist."²² Soon after, however, Williams' father proposed him to take charge the printing press of ABCFM in China. Williams was not opposed to the suggestion, but at least waited for him to finish the course in October 1832.²³ On the other hand, although Gray owned Eaton's *Manual of Botany*, "the mere fact that Asa used the manual does not establish him as a student of Eaton's, whose role in Gray's education was limited to having produced the manual."²⁴ With this as a turning point, Gray made correspondences and began exchanging plants with John Torrey (1796-1873), a botanist who had been a student of Eaton, in 1830 probably. They had a close relationship afterwards. But conversely, Gray generated controversy with Eaton thereafter.²⁵ In addition to that, according to a letter which sent from Williams afterwards, Williams also had an acquaintanceship with

Country printer, William Williams, p. 60.

18 Asa Gray, "Autobiography," in *Letters of Asa Gray*, Vol. 1, ed. Jane Loring Gray (Boston: Houghton Mifflin and Company, 1894), pp. 13-14.

19 Ibid.

20 Frederick Wells Williams, *The Life and Letters of Samuel Wells Williams*, p. 31.

21 Ibid.

22 Ibid, p. 38.

23 Samuel Wells Williams to his father, April 23, 1832, *ibid*, pp. 39-40.

24 A. Hunter Dupree, *Asa Gray 1810-1888*, p. 15.

25 *Ibid*, pp. 51-53.

Torrey.²⁶ In a sense, Williams and Gray had the same “botanist teacher,” and had a common botanist friend.

In addition to Rensselaer Institute, there was another school that connected Williams with Gray. Utica High School, which established by Charles Bartlett (?-1858?), called Utica Gymnasium afterwards. Williams entered this school in 1829, but it is unknown when he graduated (likely no later than November 1831). Moreover, there is not much description about Williams’ experience in this school. His biography provides several sentences about this period.

“Mr. Bartlett’s most admirable quality, in Wells’ estimation, was his hearty recognition of the importance of the natural sciences in a liberal education, and the attention given at this school to these subjects was as delightful to his tastes as it was unusual to the time. From these lectures and lessons in chemistry, geology, and botany came his first accurate knowledge of the sciences, the pursuit of which he carried with increasing pleasure throughout a long life as the study of his recreation, the *Nebenfach* to his professional work. Under Fay Edgerton, and after him Professor Asa Gray, as teachers in this department, the oldest boys imbibed a taste for the rare and curious in nature which turned several of them into naturalists of creditable rank; while during his long vacation trips of shorter holiday rambles the zealous and sympathetic Edgerton gave to his pupils the impress of religious character that was more precious, perhaps, than his knowledge.”²⁷

Before Williams entered Rensselaer Institute, he had already gained some knowledge about botany at Utica High School. Fay Edgerton (1803-1832) was the third notable person towards Williams and Gray. He was also Eaton’s student and graduated from Rensselaer Institute in 1828. After that, he became the teacher of chemistry, mineralogy, botany, and geology at Utica High School until he passed away.²⁸ During the Utica High School period, Williams’ botany interest was derived from Edgerton probably. Moreover, Edgerton was Eaton’s student, it might also be the reason why Williams

26 “I [Williams] have collected more an opportunity offered; one package I have sent ... and one also to Dr. Jno [John] Torrey by [*ship*] *Morrison* ... The parcel to Torrey will afford you [Gray] a better notion of this flora than the one you see?” Samuel Wells Williams to Asa Gray, October 12, 1836, “Asa Gray correspondences files.”

27 Frederick Wells Williams, *The Life and Letters of Samuel Wells Williams*, pp.27-28.

28 For further information, see, M. M. Bagg, “The Utica High School,” *Transactions of the Oneida Historical Society, at Utica, 1885-1886* (1886), pp.87-100; Also, Gerald M. Friedman, “James D. Dana and Fay Edgerton; students and/or disciples of Amos Eaton,” *American Journal of Science*, Vol.298, No.7 (Sep. 1998), pp.608-610.

chose to study at Rensselaer Institute after Utica High School. Through the letters that he sent on 23rd November 1831,²⁹ Williams reached Rensselaer Institute in November 1831. On the other hand, Edgerton passed away in the following April. As a result, Gray was recommended by some of his friends to fill the vacancy. He taught botany and mineralogy there on 20th May and ended the class on 30th July.³⁰ Then, he continued the job until 1834. However, he only worked from January to July, and took a vacation in the remaining time for plant collecting and other activities. Considering the different periods in Utica High School, Williams and Gray would not be classmates.³¹ Furthermore, they were unable to have the teacher-student relation.³² Despite Williams leaving America in June 1833, he was back in Utica in April while Gray was at work there. Moreover, when Williams was in Utica at that time, he “had no opportunity of telling you some information of this kind which I there learnt.”³³ This meant Williams made a possible contact with Gray in this period, although it cannot be ascertained if it was the first contact or not.

After Williams left for China, his friendship with Gray continued. Because

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- 29 Samuel Wells Williams to his father, November 23, 1831, in *The Life and Letters of Samuel Wells Williams*, ed. Frederick Wells Williams, pp.33-34; Samuel Wells Williams to James Dwight Dana, November 23, 1831, in *The Life and Letters of Samuel Wells Williams*, ed. Frederick Wells Williams, pp.34-35.
- 30 Asa Gray to John Torrey, January 2, 1833, in *Letters of Asa Gray*, Vol. 1, ed. Jane Loring Gray, pp.37-39.
- 31 Although Robert Lucky Bachman (1844-1921) did not mention that Williams and Gray were classmates Utica High School, he described the “classmate” relation between the Sunday School, which was founded by Williams’ father, and Rensselaer Institute. See, Robert Lucky Bachman, *A sermon delivered in the First Presbyterian Church, Utica, N.Y. upon the life and labors of Samuel Wells Williams, LL. D.*, pp. 7-8. Williams studied in the Sunday School in 1818, and he entered Rensselaer Institute in 1831. These two schools, Williams only studied at Ely Burchard’s classical school and Utica High School. Considering the “natural science and history” that Bachman noticed, the “classmate” should be referred to Utica High School.
- 32 Gu Jun emphasized twice in his book that Gray was Williams’ teacher, which probably based on Fredrick Wells Williams’ description that, “Under Fay Edgerton, and after him Professor Asa Gray, as teachers in this department, the oldest boys imbibed a taste for the rare and curious in nature which turned several of them into naturalists of creditable rank.” Frederick Wells Williams, *The Life and Letters of Samuel Wells Williams*, p.28; Gu Jun, *Wei San-wei yu Meiguo zaoqi hanxue* 衛三畏與美國早期漢學, pp. 15, 34. As mentioned above, when Gray was on duty at Utica High School, Williams had already been studying at Rensselaer Institute for half a year. However, if Gu’s point could be established, Gray could only be Williams’ private teacher or other reasons, but not because of Utica High School.
- 33 Samuel Wells Williams to Asa Gray, September 3, 1833, “Asa Gray correspondences files.”

of Williams' relationship with China, he frequently shared his experiences and opinions with Gray. When Williams was still on his voyage to China, he had already heard some rumors of "jealousy" and "suspicious nature" about the Chinese.³⁴ Williams wrote to Gray that, he did not have a good impression of the Chinese before he arrived, and he believed that he should live as careful as he can, to prevent him from being an "unlucky offender."³⁵

On 13th September 1855, Williams wrote to Gray regarding "The insurrection of which you have heard so much."³⁶ Considering the same period and place where Williams was based, "the insurrection" referred to the Taiping Rebellion. Williams mentioned that, "Daily executions in Canton are often to the number of 500, and about tendays ago 713 were decapitated in four squads on one day ... over 100000 men deaths in Canton since Jan. 1/53."³⁷ Although Williams was a devout believer, he could only pray for the Chinese.

Later, the relations between the United States and the Qing government changed. On 18th June 1858, the Treaty of Tientsin between China and the United States of America 中美天津條約 was signed. In the negotiations between the United States and the Qing government, Williams was one of the delegates of America. After the treaty was signed, Williams soon wrote to Gray that, "You will have heard of the treaties signed at Tientsin with the Chinese ministries, and perhaps seen the American."³⁸ China would open up its country more than before. Williams expected that the demand for Chinese learning would increase soon after. As a result, the Chinese dictionary necessarily catered towards the foreigners. As early as 1842, Williams had already published his first Chinese learning material, *Easy lessons in Chinese*.³⁹ And in 1844, Williams printed his first dictionary *An English and Chinese vocabulary*.⁴⁰ He was not inexperienced in editing the Chinese learning material and the dictionary anymore. After that, he prepared a new work. Williams published a new dictionary, *A Tonic Dictionary of the Chinese language in the Canton dialect*,⁴¹ in Canton. Although it was difficult to demonstrate whether

34 Ibid.

35 Ibid.

36 Samuel Wells Williams to Asa Gray, September 13, 1855, "Asa Gray correspondences files."

37 Ibid.

38 Samuel Wells Williams to Asa Gray, July 23, 1858, "Asa Gray correspondences files."

39 Samuel Wells Williams, *Easy lessons in Chinese: or, Progressive exercises to facilitate the study of that language; especially adapted to the Canton dialect* 拾級大成, (Macao: Office of the Chinese Repository), 1842.

40 Samuel Wells Williams, *An English and Chinese vocabulary* 英華韻府歷階, (Macao: Office of the Chinese Repository), 1844.

41 Samuel Wells Williams, *A Tonic dictionary of the Chinese language in the Canton*

Gray knew the Chinese language, Williams had once recommended his *A Tonic Dictionary* to Gray, and the copies could be found at the mission room of the ABCFM in Boston. Despite that, Williams also complained that the editing of this dictionary was “tedious labor.”⁴²

In addition to the lifelong friendship between Williams and Gray, there was a further friendship between their wives. Williams married Sarah Walworth (1815-1881) in 1847, the year while Williams was in America. Their marriage took place in Plattsburgh on Thanksgiving Day, 25th November. Perhaps Gray joined the wedding or contacted with Williams at that time. Notwithstanding, between February 1850 and June 1861, there must be a contact between Williams, Gray and their wives in Boston. In February 1860, Williams went back to America for a temporary vacation. However, the American Civil War broke out in the following year. Presumably, the Civil War made Gray think that they could not meet anymore. On 2nd April 1861, Gray wrote to Williams that, “Hoping you are not yet off, I beg you to drop me another line, and, if you sail from or visit Boston, come with Mrs. Williams & some of the children of yours with you, and make us a visit. Mrs. Gray joins in the invitation, and we shall be most glad to see you here again, and more leisurely.”⁴³ The word “again” hinted that they had a contact before. And because of this letter, Williams might revisit Gray before he back to China. In Williams and Gray’s late life, they were still concerned about each other. For instance, in a letter on March 1880, Williams wrote to Gray that, “I [Williams] hope that Mrs. Gray has recovered the full use of her limbs & ankle by this time, but such sprains are sometimes long in recovering. Mrs. Williams was somewhat wearied after her return, from while she has now quite regained her strength, and sends her love to both of you with.”⁴⁴ There was still a close relationship between Williams, Gray and their wives. However, the next year was a painful year to Williams. His wife passed away on 26th January 1881. At that time, Gray and his wife were traveling in Europe. After Gray got the news, he sent Williams a letter from Kew Gardens, London:

“I must drop a line to you – short though it be (as we are just backing up here and going to the continent) to say that Mrs. Gary and I have

dialect 英華分韻撮要, (Canton: Office of the Chinese Repository), 1858.

42 Samuel Wells Williams to Asa Gray, July 23, 1858, “Asa Gray correspondences files.”

43 Asa Gray to Samuel Wells Williams, April 2, 1861, in *Meiguo Yelu daxue tushuguan cang Wei San-wei weikan wanglai shuxinji* 美國耶魯大學圖書館藏衛三畏未刊往來書信集 [Unpublished letters from and to Samuel Wells Williams in Yale University Library, U.S.A.], Vol. 23, eds. Miyazawa Shinichi, Gu Jun, pp. 90-91.

44 Samuel Wells Williams to Asa Gray, March, 1880, “Asa Gray correspondences files.”

heard of your sad bereavement and wish send our tribute of sympathy of tributes you will have had very many; for your departed wife was known and admired and loved by a wide and varied circle, and many will miss her much. But for yourself, the severing of such a life-living companionship appears to see to that it would living darkness was the face of the earth. But you know and at our age, we know full well that it is only a passing cloud, and that the sometime in all its glory will soon be our faith. Age has many blessings and awful and among its serenities is the thought that its griefs on short. My wife joins in sincere sympathy and full remembers the pleasant though brief time we had together.”⁴⁵

Among the existing correspondence, this is the last letter between Williams and Gray. There was no further information about Gray consoled Williams after his journey, or whether Gray attended Williams’ funeral when the latter passed away in February 1884.

Williams had a lifelong friendship with Gray, and there was also a close friendship between their wives. Although it is not clear how their friendship started, their nexus should be related to botany indeed.

3. Plants and Seeds Presented to Gray by Williams

Undoubtedly, Williams sent a large collection of specimens to Gray in his whole life. There was no evidence to support whether Williams shared his specimens, which he had collected, with Gray before he left America. But on 3rd September 1833, when the *Morrison* was still voyaging on the Indian Ocean, Williams wrote to Gray that, “I would not have you, for some time yet, expect me to be able to send you many specimens either plant, minerals or shells.”⁴⁶ About two years later, Gray received Williams’ specimens from China. On 28th September 1835, Gray wrote to his father that, “a nice little parcel of weeds from China, sent by S. Wells Williams (son of Wm. Williams), lies at my elbow.”⁴⁷ Considering the same period, Williams stayed in Canton for his printing job, furthermore, the Qing government promulgated a prohibition that forbade the foreigners to enter the inland at that time. Even if Williams had the opportunity to travel nearby, these “little parcel of weeds” would not be too far from the Canton area, unless these “little parcel of

45 Asa Gray to Samuel Wells Williams, February 2, 1881, “Samuel Wells Williams family papers,” in *Meiguo Yelu daxue tushuguan cang Wei San-wei weikan wanglai shuxinji* 美國耶魯大學圖書館藏衛三畏未刊往來書信集 [Unpublished letters from and to Samuel Wells Williams in Yale University Library, U.S.A.], Vol. 17, eds. Miyazawa Shinichi, Gu Jun, pp. 164-166.

46 Ibid.

47 Asa Gray to his father, September 28, 1835, in *Letters of Asa Gray*, Vol. 1, ed. Jane Loring Gray, pp. 53-55.

weeds" were the inland plants that he obtained indirectly.

A few days before 10th December 1836, Williams received Gray's letter which sent on 25th May.⁴⁸ Although the contents were unknown, according to the letter from Williams on 10th December 1836, he knew that Gray had received his previous letters and plants. However, before Gray's letter arrived, Williams had no idea whether his letters and packages were sent, thus, he "frequently write another to make the chance greater."⁴⁹ Williams also sent some plants to Charles Upham Shepard (1804-1886) and John Torrey, besides Gray. Moreover, he was planning to send the plants to John Lindley (1799-1865) next time. Although Williams left the familiar environment, he had never given up his pursuit of botany. In this letter, Williams also congratulated Gray for being appointed to be the curator of the New York Lyceum of Natural History. At the end of the letter, Williams noticed something important that, he "may have an opportunity for taking a voyage along the coast of China, & from thence to Lewchew islets & Japan next summer."⁵⁰ He further hoped that Gray would send him some books about the shells, that Gray proposed doing on botany, for using in this journey, known today as the "Morrison Incident." It happened in the summer of 1837 for sending seven shipwrecked Japanese back to Japan. However, the ship was attacked by Japanese cannon fire in Uruga Bay 浦賀沖 and then Kagoshima Bay 鹿兒島灣. Fortunately, the ship was safe and returned to the port in the end. Of course, the journey failed. Despite that, as Williams expected in the beginning, he had collected some specimens during the journey. After that, he presented articles in two issues in the *Chinese Repository* with the title, "Notices of some of the specimens of natural history, which were collected during the voyage of the Morrison to Lewchew and Japan."⁵¹ However, there was no evidence whether Williams shared his specimens in this journey to Gray.

Between 1845 and 1848, Williams went back to America temporarily. He left China from Hong Kong in November 1844, arrived in Cairo the following February, Jerusalem in May, and to Paris and then England, finally ending his journey in New York in October. In this journey, Williams had

48 "Your's of the 25th of May last came by Ceylon a few days since." Samuel Wells Williams to Asa Gray, December 10, 1836, "Asa Gray correspondences file." Unfortunately, Gray's letter was not found.

49 Samuel Wells Williams to Asa Gray, December 10, 1836, "Asa Gray correspondences file."

50 Ibid.

51 Samuel Wells Williams, "Notices of some of the specimens of natural history, which were collected during the voyage of the Morrison to Lewchew and Japan," *Chinese Repository*, Vol. 6, No. 9 (Jan. 1838), pp. 406-417.

collected some plants along the way, and sent them to Gray in December 1845.⁵² After that, Williams returned to Boston in 1846. At that time, Gray had been already appointed a professor at Harvard College for four years. Harvard College was situated in Cambridge, and the offices of the ABCFM in Boston. These two places were not too far, therefore it was convenient for Williams and Gray to visit each other. Williams wrote to Gray that, “If you have any inquiries to make, I shall be happy to answer them & look over the collection, in which I hope there will be found something worth the trouble of bringing it home, when I return to Boston sometime next year.”⁵³ Since 1833, Williams had left America for 13 years. It was an opportunity for him to see his old friend again.

For Williams’ plant collecting, the Perry Expeditions was a turning point. Although Williams made his contributions to botany in the expeditions, he changed his plant collecting methods afterwards. Before the Treaty of Kanagawa 日米和親条約 was signed, Japan practiced a “closed country policy 鎖国.” While the Chinese and Dutch were permitted to carry on a limited trade, and the Joseon missions and the Ryukyuan missions could enter the country, other foreigners were even not allowed to go ashore. However, the Perry Expeditions changed the condition. The Japan’s opening integrated it with the rest of the world. For America, the opening of Japan was a result of the American Expedition. In the 1850s, America was still young to the world. Allen Burnett Cole (1914-) mentioned nine measures of growth that America confronted at that time.⁵⁴ Among them, Scientific expansion was one of the important forces.⁵⁵ As a result, the flora exploration was also one of the purposes of the Perry Expeditions.⁵⁶

52 “Herewith I send you the parcels of plants collected in my trip up the Nile & thro’ the desert from Cairo to Jerusalem, in the vicinage of Jerusalem & elsewhere in that part of Palestine.” Samuel Wells Williams to Asa Gray, December 7, 1845, “Jane Gray autography collection.”

53 Ibid.

54 These nine measures of growths were (1) Political, (2) Religious, (3) Territorial growth, (4) Commercial growth, (5) Industrial expansion, (6) Communications, (7) Population, (8) Territory, (9) Scientific expansion. See, Allan B. Cole, ed., “Introduction,” in *A scientist with Perry in Japan: the journal of Dr. James Morrow*, (Chapel Hill: The University of North Carolina Press, 1947), pp. x-xi.; Also, Allan B. Cole, “Expansive Ideologies of Mid-century America,” in “The Dynamics of American Expansion toward Japan, 1791-1860,” Part II (Ph.D. dissertation, University of Chicago, 1940), pp. 124-227.

55 For further information about American scientific exploration in mid-19th century, see, John Dryden Kazar, Jr., “The United States Navy and Scientific Exploration, 1837-1860” (Ph.D. dissertation, University of Massachusetts, 1973.)

56 For instance, Koyama Tetsuo had some investigations about the specimens that collected during the Perry Expeditions, see, Koyama Tetsuo, 小山鐵夫ed., *Kurofune*

Williams' plant collecting was a little different than before. He did not only collect for private purposes but also collected to contribute towards the aim of the expeditions. This time, Williams accompanied with James Morrow (1820-1865), whose position was Acting Master's Mate that employed as an Agriculturist, for plant collecting.⁵⁷ They collected various specimens in Japan,⁵⁸ then sent to several botanists, included Gray, for analysis.⁵⁹ After that, Gray presented the research results in "Descriptions of the botanical specimens" in volume two of the *Narrative of the Expedition of an American*

ga mochikaetta shokubutsu-tachi 黒船が持ち帰った植物たち [Japanese Plants Carried by the "Black Ships" to the United America] (Kamakura: Abokkusha shuppan-kyoku, 1996); Also, Koyama Tetsuo, ed, *Ryūkyū ōkoku jidai no shokubutsu hyōhon: Perī ga mochikaetta shokubutsu-tachi* 琉球王国時代の植物標本:ペリーが持ち帰った植物たち [Plant specimens in the Kingdom of the Ryukyus: Plants brought back by Perry] (Naha: kikaku-ten 'Ryūkyū ōkoku jidai no shokubutsu hyōhon-ten' tenji-kai jikkō iinkai, 1996).

- 57 Cole described that, "Because of mutual interests in subjects scientific and religious, Dr. Morrow and the Reverend Mr. Williams grew to be friends, contributions to each other's comfort, observations, and collections." See, Allan B. Cole, ed., "Introduction," *A scientist with Perry in Japan: the journal of Dr. James Morrow*, pp. xviii-xix.
- 58 For further information, see, Order of the government of the United States, *Narrative of the Expedition of an American Squadron to the China Seas and Japan*, 3 Vols.; Samuel Wells Williams. "A Journal of the Perry Expedition to Japan (1853-1854)," ed. Frederick Wells Williams, *Transactions of the Asiatic Society of Japan*, Vol. 37, Part 2 (1910), pp. i-ix, 1-259; James Morrow, *A scientist with Perry in Japan: the journal of Dr. James Morrow*, ed. Allan B. Cole.
- 59 Cole noticed that, "At his [Morrow] suggestion, and by authorization of Secretary of the Interior McClelland and of Commissioner of Patents Charles Mason, certain of the plants were sent to Professor Asa Gray of Harvard for description and classification. Mr. W. S. Sullivant reported on the mosses; Professor William H. Harvey of Dublin University, Ireland, on the algae; Dr. Boott of London on the carices; and Mr. Daniel C. Eaton of Yale on the ferns." Allan B. Cole, ed., "Introduction," *A scientist with Perry in Japan: the journal of Dr. James Morrow*, pp. xx-xxi. On 3rd March 1855, Charles Mason (1804-1882), the Commissioner of Patents then, wrote to Morrow that, "Please deliver to Professor Gray of Boston the dry specimens in Botany procured by you in Japan with a request that he will examine and classify the same if he can do so without expense to the Government ... The specimens are to be returned to this office after the classification by Prof Gray." Charles Mason to James Morrow, Mar 3, 1855, in James Morrow, *A scientist with Perry in Japan: the journal of Dr. James Morrow*, pp. 260. In the same year, Williams also wrote to Gray that, "I am glad to learn that the plants reached you in such order that you can examine them, and learn somewhat of the flora of Simoda & Hakodadi ... Do you propose to draw up any description of them, or make a memoir on them, or put any drawings in any Periodical? It will be a good opportunity perhaps to get drawings of *Icones Plantarum* made at good expense." Samuel Wells Williams to Asa Gray, September 13, 1855, "Asa Gray correspondences files."

*Squadron.*⁶⁰

According to the “Descriptions of the botanical specimens,” there were 254 genera, and a total of 356 species (with a Cichoraceous plant which Gray was unable to determine from materials at that time⁶¹) recorded.⁶² These specimens were principally collected in five areas, Simoda (now: Shimoda-shi 下田市), Yokohama (now: Yokohama-shi 横浜市), Hakodadi (now: Hakodate-shi 函館市), Webster Island (now: Natsushima-chō 夏島町) and Yedo (now: Tōkyō 東京). Certainly, several plants were discovered in

60 Perry printed a few of letters before “Descriptions of the botanical specimens” that why this article would record in *Narrative of the Expedition of an American Squadron*. According to these letters, Lewis Cass (1782-1866), the Secretary of State of the United States then, sent a letter to Perry that with Morrow’s report, and if Perry would like to use it, pleased Perry to transmitted to Gray. On the other hand, both Morrow and Gray recommended Perry to use Gray’s article in the books. Last Perry replied Cass that, “I have thought it advisable to urge upon the Superintendent of Public Printing the propriety of inserting the valuable papers of Professors Gray, Sullivant, and Harvey, as well out of respect to these scientific gentlemen as because of the very great interest which is attached to the natural productions of a country hitherto so little known; fortunately this can be done without inconvenience, as the printers are now engaged upon the department of Natural History.” Order of the government of the United States, “Correspondence,” *Narrative of the Expedition of an American Squadron*, Vol.2, pp.299-301. However, for the specimens that collected during the Perry Expeditions, there were some difficulties to Morrow and Perry. According to John Dryden Kazar, Jr.’s (?-?) descriptions, “Studies of the plants they brought home were delayed when Morrow and Perry disagreed on the method of studying and publishing the collections...His [Perry] idea was to publish the description of the new species of plants in his own *Narrative*. Gray, of course, wanted to publish any new discoveries in a scholarly journal. Morrow just wanted the study published, so he could complete his assignment and get paid,” also “Perry needed Morrow’s journal of the voyage for his *Narrative* but Morrow worked for the State Department, not the Navy, and there was no way Perry could order the journal to be surrendered. The journal was needed for the botanical study and this debate was hindering progress in the workup of the collections.” Originally, Gray’s “Descriptions of the botanical specimens” would be published by Smithsonian, however, Morrow guaranteed that the plant collection belonged to the State Department, and he would return the plants to be reimbursed for those specimens he had bought in Japan. Later, Perry “twice reminded Gray of the “strictly naval” character of the expedition and said he [Perry] wanted the report on the Japan plants as an appendix to his narrative. So when Gray was able to do so, he forwarded a descriptive list of the plants to Perry who had it published in the *Narrative*.” See, John Dryden Kazar, Jr., “The United States Navy and Scientific Exploration, 1837-1860,” pp.171-173.

61 Asa Gray, “Descriptions of the botanical specimens,” p.315.

62 Koyama Tetsuo mentioned that total 353 species were collected. Koyama Tetsuo, ed., “Kurofune ni yoru Nihon oyobi sono fukin de no shokubutsu saishū 黒船による日本及びその付近での植物採集 [Plant collecting in Japan and its adjoining territories by the Black Ships]” in *Kurofune ga mochikaetta shokubutsu-tachi* 黒船が持ち帰った植物たち [Japanese Plants Carried by the “Black Ships” to the United America], p.11.

more than one place. And through the collections, nearly forty new species of plants, and one new genus of plants were found.⁶³

The Perry Expeditions were undertaken between 1852 and 1854, and Williams joined the expeditions in 1853 and 1854 as the Chief Interpreter. Unlike when Perry and Williams were negotiating with the Japanese during the first visit, *Vandalia*, the ship that Morrow traveled on, was anchoring in Singapore then sailed to Macao.⁶⁴ Williams met Morrow after the first visit. However, it did not mean that Williams collected nothing in the first visit. Conversely, he found several plants around Port Lloyd of Peel Island (now: Hutami Port 二見港, Chichi-jima 父島) in the first visit. On 15th June 1853, Williams noticed that:

“Here two species of palm, one of them producing a kind of cocoa-nut, the tree-fern, the plantain, papaya, sugar-cane and pandanus, all show the tropical affinities of the flora. I found two beautiful species of Hibiscus, a Sida, of which the berry is good eating, a fern or two and a kind of iuniper. Most of the plants are new to me, but the variety is small. Few gynandrous or syngenesious plants came under my eye. In the damp or winter months there is probably more variety of flowering plants in the underbrush than at this season. Few mosses or ferns appeared, the ground being grassy and dry. Seaweed is not plenty, and the species resemble moss, covering the stones at high water.”⁶⁵

There was no further description about the types and genus that Williams gathered there, but his son noted that:

“The occasion found in Mr. Williams so eager an amateur in arranging and classifying the minerals and flora brought on board, that the Commodore exclaimed delightedly: “Why, our interpreter is as good an interpreter of nature as he is of the people of these regions!” The lack of a professional botanist and geologist connected with the expedition lessened its contributions to science in these branches, but Mr. Williams' unabated love of nature supplied every moment which he could spare

63 Asa Gray, “Descriptions of the botanical specimens,” p. 305; However, Koyama Tetsuo mentioned that 34 new species were found. Koyama Tetsuo, ed., “Kurofune ni yoru Nihon oyobi sono fukin de no shokubutsu saishū 黒船による日本及びその付近での植物採集 [Plant collecting in Japan and its adjoining territories by the Black Ships]” in *Kurofune ga mochikaetta shokubutsu-tachi* 黒船が持ち帰った植物たち [Japanese Plants Carried by the “Black Ships” to the United America], p.11.

64 James Morrow, *A scientist with Perry in Japan: the journal of Dr. James Morrow*, ed. Allan B. Cole, pp. 18-23.

65 Samuel Wells Williams, “A Journal of the Perry Expedition to Japan (1853-1854),” p.30.

from his duties with delightful and congenial occupation, and in the end the flagship returned with very creditable collections.”⁶⁶

Perry was surprised about Williams’ plant collecting. But it also meant that Williams certainly collected numerous specimens in the first visit.

Among the specimens that related to Williams, three specimens are worthy of attention. On 14th March 1854, seventeen days before the Treaty of Kanagawa was signed, after Williams finished his errand, he “had almost nothing to do, and after luncheon⁶⁷ Dr. Morrow and I slipped out behind the house and reached the nearest hills beyond Yokohama without attracting the notice of any our officials. Having attained this ridge, we started off into the country, selecting the copses and wooded hillsides as most likely to afford flowers and new plants.”⁶⁸ Not many plants were collected there, but a kind of fern was found, which Williams never saw before.⁶⁹ This fern was a new plant, which Gray named *Clematis williamsii* (Figure 1) for Williams.⁷⁰ However, if Williams had a choice, he would have preferred to be the namesake for another new species. Unlike Williams, there were three plants named for Morrow after the Perry Expeditions. These were *Lonicera morrowi* (figure 2), *Carex Morrowi* and *Polysiphonia Morrowii*. Williams preferred the *Lonicera*, which had been named for Morrow already. He noticed that, “for I think the *honeysuckle* would have been more likely to be known, as well as the handsomer plants.”⁷¹

66 Frederick Wells Williams, *The Life and Letters of Samuel Wells Williams*, pp.190-191.

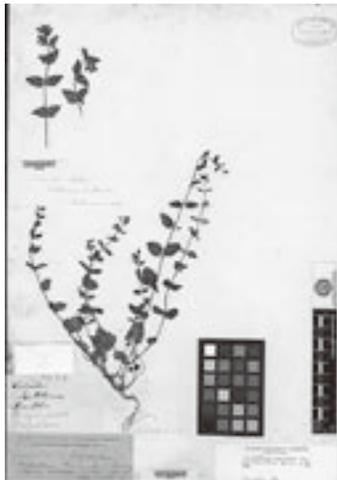
67 Morrow mentioned the time was after dinner. James Morrow, *A scientist with Perry in Japan: the journal of Dr. James Morrow*, p.130.

68 Samuel Wells Williams, “A Journal of the Perry Expedition to Japan (1853-1854),” p.135.

69 Ibid.

70 “The species is named for one of the collectors, S. Wells Williams, Esq., of Canton, a cherished friend and correspondent, author of one of the best works that have appeared upon the Chinese empire, and a good naturalist, as well as a learned oriental scholar.” Asa Gray, “Descriptions of the botanical specimens,” p.306.

71 Samuel Wells Williams to Asa Gray, July 23, 1858, “Asa Gray correspondences files.”

Figure 1. *Clematis williamsii*⁷²⁾Figure 2. *Lonicera morrowi*⁷³⁾Figure 3. *Tricercandra quadrifolia*⁷⁴⁾Figure 4. *Scutellaria guiliklmi*⁷⁵⁾

72 *Clematis Williamsii*, Gray Herbarium, Harvard University, GH: 00038181. http://kiki.huh.harvard.edu/databases/specimen_search.php?mode=details&id=12423 (accessed November 14, 2018.)

73 *Lonicera morrowi*, Gray Herbarium, Harvard University, GH: 00056620. http://kiki.huh.harvard.edu/databases/specimen_search.php?mode=details&id=59607 (accessed November 14, 2018.)

74 *Tricercandra quadrifolia*, Botany Collections, Smithsonian National Museum of Natural History, 00105023. <https://collections.nmnh.si.edu/search/botany/?ark=ark:/65665/3e3947175a4d143d99011f2526b659f43> (accessed November 14, 2018.)

75 *Scutellaria Guiliklmi*, Gray Herbarium, Harvard University, GH: 00001994. http://kiki.huh.harvard.edu/databases/specimen_search.php?mode=details&id=26700 (accessed November 14, 2018.)

On 20th March, several plants were gathered. Among these specimens, a new genus was found. Gray named it *Tricercandra quadrifolia* (figure 3). According to Gray's description, it grew "on steep and shaded hill-sides ... A well-marked new genus, evidently allied to *Chloranthus*, from which it is distinguished by the style, and especially by the stamens. The latter organs naturally suggest the name, each flower bearing as it were three outstretched tails."⁷⁶ For Williams, although he recognized that it was a new genus, he could not ensure his guesswork. Williams reminisced that, "I have been trying to remember the books of the new genes, the *Tricercandra*, from the description of it, but cannot assure myself whether it is the anomalous looking herb I found at both ports, & told Morrow that I guessed it would be a new genus if there were one at all."⁷⁷ Although Williams realized the plants were a new genus, the professional knowledge was not enough for him to make his decision.

The third, without description about the collecting date, was from Simoda. "*Scutellaria Hederacea*, Kunth. *Ind. Sem. Hort. Berol.* 1845, *ex Benth. L. c.* p.426? Simoda. Leaves resembling those of *Veronica hederæfolia*, but on very petioles, the lower, however gathered."⁷⁸ This plant was not determined as a new genus at first, however, Gray confessed his misunderstanding about two decades later. In a footnote of a new species *Scutellaria Guiliklm* (figure 5), Gray mentioned that:

"*Scutellaria Guiliklmi* n. sp. *S. hederacea*? Gray, in Perry's Japan Exped. iii. p.316, & Bot Contrib. Proc. Amer. Acad. viii. p.370, not of Kunth and Bouché. It appears from a note by Vatke, in Bot. Zeit., 1872, p.717, that *S. hederacea* is identical with the Tasmanian *S. humils*, and its nutlets were originally described as echinulate-tuberculate, and by implication wingless. So our plant may be named in honor of Dr. S. W. Williams, who first collected a little of it at Simoda, Japan. Better and fruiting specimens were gathered on the Loo-Choo Islands, by Charles Wright."⁷⁹

Nevertheless, *Scutellaria Hederacea* was not renamed, and there was only one plant named for Williams, which he collected during the Perry Expeditions.

76 Asa Gray, "Descriptions of the botanical specimens," p.318-319.

77 Samuel Wells Williams to Asa Gray, July 23, 1858, "Asa Gray correspondences files."

78 Asa Gray, "Descriptions of the botanical specimens," p.316.

79 Asa Gray, "Address of Professor Asa Gray, Ex-President of the Association," *Proceedings of the American Association for the advancement of science. Twenty-First meeting, held at Dubuque, Iowa. August, 1872* (Cambridge: Joseph Lovering, 1873), p.25.

For Gray, the specimens collected in other expeditions by Charles Wright (1811-1885), added to those collected by Williams and Morrow, were all in hand by 1857.⁸⁰ Wright was American botanist and a friend of Gray, who had joined the “North Pacific Exploring Expedition,” which was conducted between 1853 and 1856, under Commodore Rogers (1812-1884). Wright also collected numerous specimens in Japan, in addition to those collected by Williams and Morrow. For Gray, the flora of Japan was meaningful. In 1846, he had already described a phenomenon about the similarities of flora that grows in Japan and the eastern North America.⁸¹ Although the specimens from the Perry Expeditions should have been useful for Gray’s comparative study, he chose to wait for Wright’s specimens. Hung Kuang-Chi 洪廣冀 described in his Ph. D. dissertation that, “Though it revealed some interesting aspects of Japan’s flora, he [Gray] thought that the collection merely confirmed the floristic similarities between Japan and that of eastern North America, which he had known about for many years.” Hung further explained four reasons why the collection’s scientific value was diminished. (1) Neither Williams nor Morrow had enough plant collecting experience before the expeditions, (2) most of the specimens were fragments, making them difficult to analyze, (3) the “timing” was not right for botanical research in Japan, (4) Perry aimed to sign the treaty but was concerned that the collecting would generate unnecessary anti-American reactions.⁸² As Gray expected before, the specimens from Wright were more intensive.⁸³ Notwithstanding, a species was named for Williams, a new genus was found, and a species was nominated for Williams; these three specimens showed the main botanical contributions of Williams under the Perry Expeditions.

After the Perry Expeditions, Williams kept trying to find some plants for Gray, but this time, he felt the gathering was much harder than before. In September 1858, Williams visited Nagasaki 長崎. Two months before, when Williams was still in Shanghai, he was afraid that there were no new plants

80 A. Hunter Dupree, *Asa Gray 1810-1888*, p. 249.

81 Asa Gray, “Analogy between the Flora of Japan and that of the United States,” *The American Journal of Science and Arts*, 2nd series, Vol 52 (Nov. 1846), pp. 135-136.

82 Hung Kuang-Chi, “Finding Patterns in Nature: Asa Gray’s Plant Geography and Collecting Networks (1830s-1860s)” (Ph.D. dissertation, Harvard University, 2013), pp. 558-560.

83 See, Asa Gray. “Diagnostic Characters of New Species of Phænogamous Plants, Collected in Japan by Charles Wright, Botanist of the U.S. North Pacific Exploring Expedition. (Published by Request of Captain John Rodgers, Commander of the Expedition.) With Observation upon the Relations of the Japanese Flora to that of North America, and of other Parts of the Northern Temperate Zone.” *Memoirs of the American Academy of Arts and Sciences*, New Series, Vol. 6, No. 2 (1859), pp. 377-452.

in Nagasaki any more because Siebold⁸⁴ had already collected them all. Moreover, he thought the temperature there was not convenient to botanize in.⁸⁵ Williams did not believe that he could collect fruitful specimens in this journey. On the other hand, Williams gave himself a pressure that only the “new forms & stages good” could be sent to Gray. He thought Gray has complimented him so high, therefore he was bound to show how good a naturalist he was.⁸⁶ As a result, Williams changed his plant collecting methods, and he would send the specimens that were better than before.

After that, in the spring of 1875, Williams went back to America temporarily for a vacation. Between 1875 and 1876, Williams visited Gray’s Herbarium. During that visit, Williams recognized that there was few or no plants from Peking and its vicinity in this Herbarium. Thus, Gray hoped that Williams could bring some plants or seeds from China to enrich the Herbarium. Williams did indeed. However, he did not bring back many plants and seeds. In a letter dated 7th April 1877, Williams explained:

“On my [Williams] return to Peking last summer [1876] ... They were fewer than usual, partly owing to my late arrival at the city, May 29th, often the vernal flowers had mostly passed away; but more owing to the lateness of the rains on 7th July which caused a me[a]ger flora during the next 60 days, as the parched ground had nearly killed a good portion of the grasses and succulent plants in that particular region where I spent the summer vacation ... I have had much pleasure in collecting them for you, and my chief regret is that the variety is so scant.”⁸⁷

With the letter, two packages of seeds were sent. Among these, Williams especially recommended the “novelty and beauty” of the bladder tree and “fragrant” *Vitex* to Gray. Williams retired and went back to America in 1877. He visited “Prof. Henry”--Perhaps Joseph Henry (1797-1878)--in Washington, and left some seeds of *Boea hygrometrica* for Gray, which Williams collected primarily for the Kew Gardens. Although Williams left the seeds of *Boea hygrometrica* for Gray, he doubted that Gray could grow it successfully, because of the dryness that was necessary, fearing that a sudden rain in June

84 Philipp Franz Balthasar von Siebold (1796-1866), a German physician and botanist, who had served the Dutch military as an army medical officer. Siebold had collected numerous specimens in Nagasaki, and then published his great work, *Flora Japonica* (1835-1870) in 30 volumes.

85 Samuel Wells Williams to Asa Gray, July 23, 1858, “Asa Gray correspondences files.”

86 Ibid.

87 Samuel Wells Williams to Asa Gray, April 7, 1877, “Asa Gray Correspondences files.”

might hinder the growth.⁸⁸

After Williams was back in America, it was no longer necessary for him to send Gray seeds or specimens anymore, as the plants there were more familiar to Gray. On the other hand, because Williams had a deep relationship with the Chinese, he was also knowledgeable about Chinese botanical works. There is not much evidence about which Chinese botanical works Williams shared with Gray. But Francis P. Knight (?-?), the first American consular official of Newchwang 牛莊 (now Yingkou 營口), had received a note by Williams, which he then enclosed to Gray on 8th May 1877.⁸⁹ In this note, Williams mentioned a Chinese botanical work called 植物名實圖考, with a transliteration name *Chih Wuh Ming-shih Tu-Kao* [Researches into the Names and Virtues of Plants]. This book series was created by Wu Ki-sun 吳其濬 (1789-1847), and published a year after the author passed away by Luh Ying-kuh 陸應穀 (?-1857), contained about 1800 woodcuts of plants, and “the rest of it is agricultural, giving directions about cultivating grains, vegetables, and herbs.” Williams praised it highly, stating: “it is incomparably the best book on botany by a native Chinese. Though not an ancient work, its superiority has caused it to be sought after by native scholars.”⁹⁰ He also introduced this book series in his *The Middle Kingdom*,⁹¹ which was published six years later. And after 1877, Williams stayed in America until he passed away. If he had time, perhaps he would share this books or other Chinese botany works to Gray by his own words.

4. Williams' contact with Ko Kun-hua through Gray

On 15th September 1879, a letter was sent. Williams wrote to Gray that, “I have received two notes from Mr. F. P. Knight at Shanghai, strongly requesting me to go to Harvard College to see his protégé the Chinese teacher Ko.”⁹² “The Chinese teacher Ko” referred to Ko Kun-hua 戈鯤化 (1836-1882), the first Chinese professor at Harvard College, who Williams did not know before.⁹³ Ko was born in Anhui 安徽 in 1836. Between the

88 Ibid.

89 Francis P. Knight to Asa Gray, with Williams, S. Wells undated description, May 8, 1877, “Asa Gray correspondences files.”

90 Ibid.

91 S. Wells Williams, *The Middle Kingdom*, Vol 1, 2nd ed., p.377.

92 Samuel Wells Williams to Asa Gray, September 15, 1879, “Asa Gray correspondences files.”

93 About the life and achievements of Ko Kun-hua, there are some related investigations before. See, Zhang Hong-sheng, *Zhong Mei wenhua jiaoliu de xianqu: Ge Kun-hua de shidai, shenghuo yu chuanguo* 中美文化交流的先驅: 戈鯤化的時代、生活與創作 [the herald of cultural interaction between China and America: the age, life and creations of Ko kun-hua], rev. and enl. ed. (Nanjing: Fenghuang chubanshe, 2016); Stephen

1850s and 1860s, Ko had joined the Xiang Army 湘軍 as a staff 幕僚, during which, he took part in the war to quell the Taiping Rebellion. After that, Ko worked at the U.S. Consulate General in Shanghai in 1862. Two years later, after the expiration of the term, Ko moved to Ningbo 寧波, and then worked at the British Consulate.

In 1877, Knight suggested that Harvard establish a Chinese course. Through Chinese learning, he expected that Harvard could cultivate more talent for serving in the Sino-American communication. Knight thought it was necessary to hire a local Chinese at Harvard, to enable students to acquire enough knowledge before they went to China. Since Yale College was intending to appoint Williams to be the professor of Chinese language and literature at around the same time, Knight did not want to see Harvard outdone.⁹⁴ At last, Harvard hired Ko as the first Chinese professor with a three-year appointment. However, just a half year before the expiration of the term, Ko fell ill with pneumonia, and passed away on 4th February 1882.

Williams was the first sinologist at Yale College, and Ko was the first Chinese professor at Harvard College. Their contact also reflected an aspect of Sino-American relations. About Williams and Ko's relationship, in an interview in 2001, Zhang Hong-sheng 張宏生 (1957-) said,

“After Ko Kun-hua came to America, he soon got to know Samuel Wells Williams. For Ko, he was glad to meet a foreigner, who had the same profession and was so proficient in Chinese learning. He was also grateful to Williams, because the English-Chinese dictionary that Williams presented to him made it much easier for him to acquire English. Similarly, Williams was also pleased to meet Ko. Because of that, after he got his professorship at Yale, he also hoped to interact with the Chinese scholar and get help. The relationship between Williams and Ko was significant in the Sino-American relations in terms of cultural exchange and the development of American Sinology. Even nowadays, Yale and Harvard are still two significant centers of sinological study in America. At about a hundred years ago, these two universities successively established the Chinese language (literature) chairs. Also, there was another coincidence that the first sinologists at these two colleges, one was American, and another was Chinese. Furthermore, their rela-

R. Platt, “The Mandarin of Cambridge,” *Yale Review*, Vol.92, No.1 (January 2004), pp.85-103; Gu Jun, *Wei San-wei yu Meiguo zaoqi hanxue* 衛三畏與美國早期漢學, pp. 118-120; Xu Guo-qi 徐國琦, “Ge kunhua: America's First Chinese Language Teacher,” *Chinese and Americans: a shared history* (Cambridge, Mass.: Harvard University Press, 2014), pp.105-135.

94 Stephen R. Platt, “The Mandarin of Cambridge,” pp.86-87.

tionship was out of the ordinary. However, the previous scholars had not entirely recognized the meaning of that.”⁹⁵

Similarly, Gu Jun (1972-) thought that, “Williams’ relationship with Ko Kun-hua, the first professor of sinology at Harvard College, was not just the pleasure in his late life, but also a favorite anecdote in the history of American Sinology.”⁹⁶ These descriptions, however, always tending to be positive, could only be applied to their later relationship, while the gap and the early relationship between them had never been noticed.

In 1879, Williams had been already appointed professor at Yale College for two years. In the same year, Ko signed a contract to teach at Harvard for three years, with Knight in Shanghai on 26th May. He and his family arrived in New York on 28th August 1879, then reached Cambridge in the following day. Williams probably received Knight’s two notes at the same time. Even with Knight “strongly requesting” Williams to meet Ko, Williams had no wish to accept the request. Williams explained himself in the following manner.

“I have hardly had time to think the matter over, and I was in hopes to have seen some gentleman connected with the College at Saratoga, who could tell me more about its surroundings and expectations. It does not seem to be work while to go there, unless there are students under Mr. Ko who may be pleased to get some general directions as to this course of study, some information as to the books in using acquiring Chinese, or hints on the dialects which might guide them in their choice.”⁹⁷

95 “戈鯤化來到美國以後，很快就結識了衛三畏。對於戈鯤化來說，他很高興能在美國碰到一個洋人同行，而且這麼精通中國學問。他也很感謝衛三畏，因為衛三畏送給他的英漢辭典，使得他在學習英文中少走了不少彎路。同樣，衛三畏也很高興能認識戈鯤化。因為他在耶魯獲得這個教職以後，也很希望能和一個中國學者互相切磋，得到幫助。他們二人的交往在中美關係史，尤其是中美文化史和美國漢學發展史上，都是重要的一筆。直到今天，耶魯和哈佛仍然是美國漢學研究的兩大重鎮，而在一百多年前，正好這兩個學校先後設立了中國語言(文學)教席，更巧的是在這兩大名校執教的中文教師，一個是美國人，一個是中國人，而且兩個人之間的關係非同尋常，這其中的意義至今仍然沒有被學者們所充分認識。” Hong Wen 洪文, “Zhongguo fu Mei renjiao diyiren — Ge Kun-hua: Nanjing daxue zhongwenxi Zhang Hong-sheng jiaoshou da jizhe wen” 中國赴美任教第一人—戈鯤化:南京大學中文系張宏生教授答記者問 [The first Chinese who took up the teaching position in America — Ko kun-hua: An interview of Professor Zhang Hong-sheng of Nanjing University Literature School], *Zhonghua dushu bao* 中華讀書報, February 21, 2001, p. 10.

96 “衛三畏與哈佛第一位漢學教授戈鯤化的交往既是他晚年的一大樂事，也是美國漢學史上的一段佳話。” Gu Jun, *Wei San-wei yu Meiguo zaoqi hanxue* 衛三畏與美國早期漢學, p. 118.

97 Samuel Wells Williams to Asa Gray, September 15, 1879, “Asa Gray correspondences files.”

Williams thought the visit should be intended for a student, but not aimed for Ko. However, “I [Williams] have not learned anything as to the prospects of Mr. Ko getting any students.”⁹⁸ Which meant that Williams was unwilling to visit Ko. On the other hand, when Ko was still in China, Robert Hart (1835-1911), head of the Chinese Maritime Customs Service, had already worried about Ko’s dialect and his teaching materials.⁹⁹ Like Hart, the same thought was in Williams’ mind. Furthermore, Williams was also suspicious of Ko’s English proficiency. “I [Williams] see in our notices of his arrival that he knows very little or no English. This deficiency will rather force him to become a student in our language. I should think, than to expect students in his own.”¹⁰⁰ Despite that, Williams did not totally object to have a contact with Ko. “I [Williams] am quite willing to go to Cambridge in this venue, if there is any present adequate reason for the trip of the sorts I have indicated. Merely to make Mr. Ko’s acquaintance will not be much of a return for the time it will take.”¹⁰¹ For Williams, there was a lifelong friendship with Gray. Moreover, Gray was the professor at Harvard College. Therefore, Williams was willing to listen Gray’s views. Despite this, he believed Harvard’s hiring had failed already.¹⁰²

Williams’ indifference was known not only by Gray, but a few others as well. Three days after Williams sent his letter, another letter was sent from Manchester, New Hampshire.¹⁰³ This letter was from Charles William Eliot (1834-1926), the president of Harvard College. To Williams’ attitude, Eliot wrote to Gray that, “Dr. Wells [Williams] is quite sight in thinking that it is not worth while for him to visit Mr. Ko until some pupils appear. Then, I think Dr. Wells could very materially assert Mr. Ko and his pupils.”¹⁰⁴ Although Eliot once disagreed to hiring Ko, but here, he confessed that he was receiving “misdirections.” Eliot noticed that both Edwards Bangs Drew (1843-1924), a Chinese customs official, and Walter Caine Hillier (1849-1927), a British consular official, “express the hope that Dr. Wells [Williams] will give Mr. Ko some assistance at the start.”¹⁰⁵ Eliot had not mentioned that

98 Ibid.

99 Xu Guo-qi, “Ge kunhua: America’s First Chinese Language Teacher,” *Chinese and Americans: a shared history*, pp.115-117.

100 Samuel Wells Williams to Asa Gray, September 15, 1879, “Asa Gray correspondences files.”

101 Ibid.

102 Ibid.

103 The year of this letter was not noticed, however, considering the contents that about Williams and Ko, this letter supposed to be sent in 1879.

104 Charles William Eliot to Asa Gray, September 18, n.d., “Asa Gray correspondences files.”

105 Ibid.

he wished Williams to give Ko some suggestions in this letter, although he also partly agreed with Williams that, "doubtful whether any students of Chinese appear at once. The notice of the provision made by the University was very late to living students that year. No undergraduates should take much a difficult study."¹⁰⁶ Nevertheless, Eliot still wished to see Williams at Harvard later.

According to the existing evidence, it is conceivable that Gray persuaded Williams to visit Ko. Williams had expected Gray to come to his house in winter,¹⁰⁷ when he would listen to Gray's opinions. But to Gray, he might visit Williams earlier than the winter if he was impatient for it. In the letter from Williams dated 15th September 1879, there was Gray's note.

Dear Barnes:

Please give me some information for Prof. Williams' guidance. I should like a visit from him.

A. Gray¹⁰⁸

Gray forwarded the letter to "Barnes" for guiding Williams. He probably got what he needed and visited Williams thereafter.

Apparently, Williams had changed his attitude towards Ko. In Williams' biography, there were a few lines that indicate this.

"Professor Ko, a genial and cultivated gentleman, whose eminently kindly nature and personal qualities are not yet forgotten in Cambridge, exchanged visits with Mr. Williams during first year of his brief residence in this country, and in the course of their further acquaintance seemed to have cherished a warm attachment to Mr. Williams."¹⁰⁹

After Gray's persuasion, there was a meeting between Williams and Ko. Although it is not clear when and where the meeting took place, considering a letter sent in March 1880 from Williams, their contact should not be later than March 1880. In this letter, Williams wrote to Gray that, "I have just received a few copies of a photograph from San Francisco, and send you one as a souvenir. I venture to inclose one for Prof. Ko, whose dwelling I do not know the number of, with the request that you will hand it to him."¹¹⁰ Williams used the different title to call Ko. In the letter on 15th September

106 Ibid.

107 Samuel Wells Williams to Asa Gray, September 15, 1879, "Asa Gray correspondences files."

108 Ibid.

109 Frederick Wells Williams, *The Life and Letters of Samuel Wells Williams*, pp.450-451.

110 Samuel Wells Williams to Asa Gray, March, 1880, "Asa Gray correspondences files."

1879, Williams called Ko “Mr.,” but here, he addressed Ko as “Prof.” Although it was just a professional title, it still reflected Williams’ recognition of the fact that Ko was a professor. Moreover, although Williams had no idea about Ko’s address, Williams was trying to give the presents to Ko through Gray, which meant Gray was undoubtedly helpful to Williams’ contact with Ko.

Although there was no clue about whether Williams ever visited Ko at Harvard, he had received letters and poems from Ko afterwards. And Ko had revisited Williams at the end of 1881, then sent Williams a New Year’s greeting card in the following years.¹¹¹ Before long, Ko passed away at his Cambridge home. There was no record of whether Williams attended Ko’s funeral. Comparing their early and late relationships, Williams obviously changed his attitude to Ko after Gray’s persuasion.

5. Conclusion

In conclusion, Williams had a lifelong friendship with Gray, and there was a close friendship between their wives. Although it is unclear as to how their friendship started, their initial contact should be related to botany. After Williams was sent to China by ABCFM to work for the printing press, he sent Gray plants and seeds occasionally until he retired and went back in America in 1877. And because of his relationship with the Chinese, he also shared his opinion about Chinese with Gray. For the Perry Expeditions, if Williams did not accept Perry’s appointment at first there would have been an entirely different result with regard to not only the negotiations but also the gatherings. Despite Williams’ achievements in the Perry Expeditions, for the plant collecting, Williams felt pressure from Gray, which caused Williams to change his plant collecting methods. Williams tended to send Gray more “new forms & stages good” than before. According to Williams’ lifelong friendship with Gray, although it was insufficient to indicate that Williams was a specialist in botany, it was enough to identify Williams as an amateur botanist. In addition to the botanical relationship, the influence of Gray towards Williams’ contact with Ko Kun-hua was also important. Notably, with regard to Williams’ early view of Ko, there was not a good experience at the beginning. If Gray had not persuaded Williams, Ko might never have gotten Williams’ help. It could be said that, besides botany, Gray was also an essential figure in the history of Sino-American cultural exchanges.

111 Xu Guo-qi 徐國琦, *Chinese and Americans: a shared history* (Cambridge, Mass.: Harvard University Press, 2014), pp. 126-128.