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# A Study on Library Development Practice and Thought of Notabilities Whose Native Places Are Xiangshan — From "Yung Wing's Paper" to "Four-corner Indexing System"

Xiaohui Zhang
Library
Zhuhai College of Jilin University
Zhuhai, China 519000

*Abstract*—By studying documents such as "Yung Wing's Paper", Tsai Ting Kan's "Lao Jie Lao" (a book of annotation of "Lao Tzu"), Zheng Guanying's "Shengshi Weiyan: CangShu" (a book of exploring the way to save the country), and Wang Yunwu's "Four-corner Indexing System", the article selects the excellent practice of most famous sages of Xiangshan in Guangdong in library business, while extracting the essence of their ideas. From the perspective of literature analysis, it can be seen that notabilities whose native places are Xiangshan devoted a lot of effort to the library cause in modern China, which is of special value to the research and construction of the "Greater Bay Area with Humanities" of Xiangshan culture, and has special historical status in China's library cause, deserving the attention of academic circles.

*Keywords: person whose native place is Xiangshan, library science, literature*

## I. INTRODUCTION

According to historical records, Yung Wing had a long history with libraries. His interest in the spread of Chinese culture in the United States gave him the opportunity to appreciate the idea of early American public libraries. His experience and related documents have played a significant role in the rise of the modern and modern library cause in China; the "Lao Jie Lao" edited by Cai Tinggan from Xiangshan, applied the emerging foreign indexing technology at that time. It was the earliest word indexing for Chinese ancient books in China, which had an important impact on the collation of Chinese ancient books and Chinese indexing technology; Zheng Guanying's article "Shengshi Weiyan · Cangshu" expresses his book collection thoughts and reform concepts, and puts forward the idea of building a Chinese-style academy. Zheng Guanying's library ideas have certain advanced significance in the history of modern Chinese library science; the four-corner indexing system invented by modern publisher and library scientist Wang Yunwu from Xiangshan is a very convenient and excellent Chinese character indexing method. It has many advantages over other word check methods, and has made a

significant contribution on the indexing of ancient books in China. This article only discusses the library theory and practice from "Yung Wing's Paper" to "Four-corner Number Checking Method", and reveals the main academic viewpoints and contributions of library industry in modern China.

## II. "YUNG WING'S PAPER"

In Yung Wing's residence in his old age, 16 Edwood Road, Hartford City, he completed the English autobiography "My Life in China and America", which mentioned in Chapter 5 "My College Days" that, at the end of the second and third academic years, Yung Wing held the position of "an assistant librarian", a position of librarian for the Delta Kappa Epsilon, which was one of the two student debating societies of the school at that time. In 1915, the Chinese translations of Yun Tieqiao and Xu Fengshi, the position was compiled as "book-charger", and Yung Wing still held this position in the fourth academic year. In a message from Yale University's 1854 graduate for Yung Wing, William Kautchisow wrote to his friend Yung Wing, "As classmates and librarians, we were close." In the autobiography, it was also mentioned: "which was one of the two college debating societies that owned a library, and of which I was a member ". In the Chinese translation, the "library" was compiled into "藏书楼", and Yung Wing also got the membership. Coincidentally, the author found in Yung Wing's diary of September 14th in 1902, that he recorded as "paying 3.5 dollars for the lifetime membership of the Tabard Library". Sorting out 13 letters from friends of Yung Wing in Yale University's collection, it can be found that Yung Wing was addressed a total of 6 letters to the professor of Yale University, Yale University Library curator Addison Van Name and Yale University librarian J.C. Schwab, which were mainly about donating books to Yale University and donating lecturer seats of Sinology of Yale professors. The list of books includes "Complete Compilation of the Rules of the Qing Dynasty", "Essentials of the Outlines of History", "The Three-character Classic",

"The Book of Family Names", "Thousand Character Classic", "The Four Books" (The Great Learning, The Doctrine of the Mean, The Analects of Confucius, Mencius), "The Five Classics", "The Classic of Mountains and Seas", etc., and donated his autobiography "My Life in China and America" to the Yale University Library through librarian J.C. Schwab. In the letter, Yung Wing hoped that these books can arrive successfully and become the core books of the Chinese library that has met expectations. Donating lecturer seats of Sinology of Yale professors was that Yung Wing urged Addison Van Name to open a "Chinese Language and Culture Lecture" in the Yale University Library as soon as possible.

The above-mentioned core content comes from Yung Wing's autobiography "My Life in China and America" (generally translated as 《西学东渐记》 or 《我在中国和美国的生活》), Yung Wing from various academic institutions Documents, Yung Wing's documents held by academic institutions in the United States and Yung Wing's documents held by Chinese research institutions. It can be concluded as the following:

- As the first Chinese graduate of an American university, Yung Wing was one of the few pioneers in modern China to go abroad to see the world, and the first Chinese librarian in modern America. From various types of literature, it can be seen that Yung Wing's love for books, and he had also reached many people through this position; there are not only librarians but also assistants in the library building, which implements a membership system, employs staff, and has job subsidies. These are some of the characteristics of modern public libraries, and the library building is also the precursor of the formation and development of modern libraries in China.

- Book donation is one of the channels for library book interviews and also an important channel for enriching the collection. Yung Wing donated many traditional Chinese books to the Yale University Library, and actively maintained close ties with the Yale University Library. The role of Chinese culture and inheritance of knowledge has also added a rich connotation and laid an important foundation for Yale's Sinology research. In 2006, the president Levin of Yale University presented a portrait of Yung Wing's oil painting and a rare version of Yung Wing's "Compilation and Annotation of Chinese Traditional Philology" to the then President Hu Jintao. This fully reflects Yung Wing's great practice in promoting the culture of China and the United States, especially the modern library cause and construction.

- The first Confucius Institute in American university history — "Chinese Language and Culture Lecture" was urged and operated by Yung Wing. In a letter

dated February 26, 1877, to the director Addison Van Name of the Yale University Library, Yung Wing advocated as this: "If the donation to the Yale sinology professor's lecturer seat is confirmed, I will be very happy and be prepared to make my Chinese books available to (Yale) University at any time. I hope that Yale is not delaying till Harvard would hold the chance." Library lectures are a library business work for library workers to spread and publicize advanced socialist culture and improve readers' information literacy through planning, organization, dialogue, education, and training. The implementation of lecture services has become one of the core businesses. It can be seen that Yung Wing had a deeper understanding of the role and importance of libraries, and had a rational, open, and conversational library spirit.

### III.    TSAI TING KAN'S "LAO JIE LAO"

The old name of the index is general inspection, preparation for inspection, or indexing. It is a tool that facilitates readers to search for books and materials. The basic unit of the index is the index entry. Tsai Ting Kan, a naval general and diplomat of the Xiangshan, Guangdong Province, edited a verbatim index of "Lao Tzu Tao Te Ching" for several years (beaded), and proclaimed "Lao Jie Lao" in 1922 (when he was 60 years old) and published it by himself. The book is indeed the earliest verbatim index of China. Due to the rarity reservation in the world, it was not widely circulated, and it was only sent to colleagues. It is difficult to find its original appearance. It can be indexed in the Peking University Library and the National Library of China. However, according to Wang Yage's "Visiting Record of 'Lao Jie Lao'", the "Lao Tzu Index" (Ye Tinggan) is exactly the reprinted "Lao Jie Lao" (by Tsai Ting Kan). The content is completely copied, unchanged, but the layout and font sizes have changed. The editor Tsai Ting Kan had become the author "Ye Tinggan". This does not affect the research. The researchers sincerely thank Dr. Wang Yage for his hard work on the book "Lao Jie Lao". Retrieved by the author, published by Taipei Literature, History and Philosophy Publishing House, the "Lao Tzu Index" by Ye Tinggan is available in Peking University Library, Chinese Academy of Social Sciences Library, Shenzhen University Library, Nanjing University Library, Ningxia University Library, etc. It is more collected by libraries in Taiwan, such as National Taiwan University Library, National Taiwan Normal University, National Sun Yat-Sen University Library, Taiwan National Central University, Academia Sinica Fu Sinian Library, etc. The author also found that "Lao Tzu Index" (1973 mimeograph) and "Lao Jie Lao" (photocopy) can be purchased at online dealers. Here, the author focuses on the analysis of the index readings and examples of the original work of "Lao Jie Lao" (by Tsai Ting Kan), with the beaded index of the original book for explanation. ("Fig. 1")
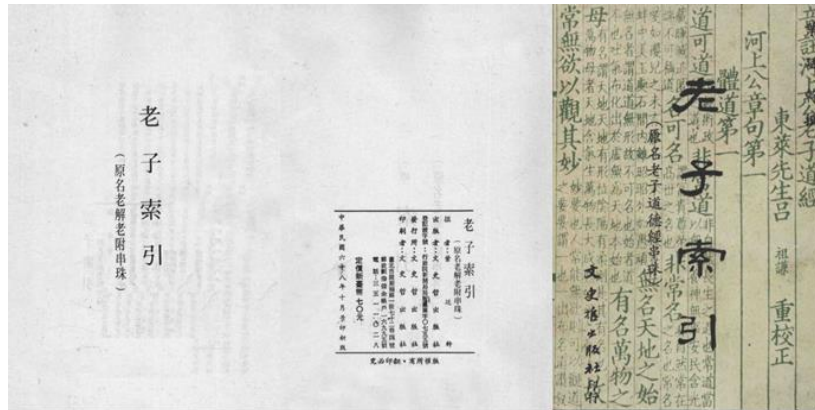
Fig. 1. Title page, copyright page, back cover page, etc., of "Laozi Index" [original name "Lao Jie Lao (beaded)"].



Fig. 2. Examples and the beaded index entries (character 兮) in the original photocopy of "Lao Jie Lao".

From the examples in the "Fig. 2" above, it can be concluded that "Lao Jie Lao" mainly implements the word-by-word indexing technology with single words (retrievable by the number of strokes) as the target. Taking the word "兮" (xī) as an example, the number of strokes of "兮" is 4. In the number of 4 strokes pointing to the single-word directory (Bu'er catalogue), the number below the word "兮" is "一〇六" (106 yī líng liù), which represents the retrieval code, and then people can see the word "兮" in the bead index item "一〇六". The following is "共用二十六次" (being used for 26 times) and a beaded index composed of the order in which the index text appears in the original text. "共用二十六次" is the word frequency statistics of the word "兮" in the original text of "Tao Te Ching". As it shown in the beaded index entry of "Fig. 2", one of the index entries of "兮" is "〇二十一 惚兮恍兮〇恍兮惚兮〇窈兮冥兮〇二十五寂兮……", "〇" is the end identifier of the index sentence. "二十一" (21) is the chapter number of the index sentence in the original text, identifying the source of the sentence, and the order of appearance of the index sentence of "二十五" (25) in the original text. There is no index sentence with a number after "〇", which indicates that it appears in the same chapter number as the original sentence in the "Tao Te Ching". It can also be found from the beaded index item in "Fig. 2" that "共用二十六次" already included the number of repeated occurrences of "兮" in the same index text sentence, instead of the case that "兮" was only counted for once in the same sentence. The words "熙" (xī), "昭" (zhāo), and "闷" (mēn) that appeared repeatedly in the same index sentence in "Lao Jie Lao" were also counted as such.

Tsai Ting Kan's "Lao Jie Lao" has two groundbreaking contributions in the library indexing:

- Verbatim indexing of single words (retrievable by the number of strokes) as the heading is the earliest word indexing in China that uses single words as the heading. It concatenated the number of times each word appears in the original text of "Tao Te Ching" and the text of the chapter in which it is located, and the identifiers ending with "〇" are, like beads, which enhances the degree of detail of the index and helps readers to read and retrieval also provides shortcuts for researchers of Lao Tzu's theory. This identifier is used in the famous "Sinological Index Series". As Ren Rongdi wrote in the postscript of "Lao Jie Lao", "其释首章于有无两者，明其句读，独得真谛，道前人所未道。至于串珠，萃而聚之，会而通之，以经证经，不解自解。诚为读是书者之南针也。(His interpretation on the first chapter is based on the presence or absence. The sentence is read clearly, and the truth is gained, which pointed what the predecessors haven't said. As for beading, they are gathered together, to explain each other, prove the classics with classics, and interpret the content. Sincerely it is the compass for the readers.)" It can be seen that the verbatim indexing technology in Tsai Ting Kan's "Lao Jie Lao" has made great achievements, which greatly promoted the exploration and development of modern Chinese indexing, and also laid the foundation for the construction of Chinese indexing.

- The essence of indexing is sorting, which is also one of the foundations of indexing and compiling. The index entries are arranged according to the order of their index words. The sorting method strives to be concise and fast, and improves the efficiency of index retrieval. "Lao Jie Lao" sorted the index headings in

the index, such as "兮一〇六" (xī yī líng liù), "似一〇七" (sì yī líng qī), and "宗一〇八" (zōng yī líng bā) in the beaded index entry of "Fig. 2" can also represent the order in which the words appear in the original text of "Tao Te Ching"; "Lao Jie Lao" also sorts the index entries under the same heading, as "二十一" (21), "二十二" (22) and "二十三" (23) shown in "Fig. 2"; "Lao Jie Lao" also quotes 804 key words in the original text of "Tao Te Ching", and sorts the number of these words by the number of strokes, and uses the number of strokes to point to the words, such as "四画共四十字" (there are a total of 40 characters with 4 strokes), "五画共四十六字" (there are a total of 46 characters with 5 strokes) and so on. Tsai Ting Kan's "Lao Jie Lao" pointed out the method of indexing and ordering, provided a screening method, and improved the retrieval efficiency, reflecting Tsai Ting Kan's in-depth literature research. He also played a role in promoting the birth of later books such as "Sinology Index Series", "Sino-French General Inspection Series", and "Thirteen Classics Index".

## IV. ZHENG GUANYING'S "SHENGSHI WEIYAN: CANGSHU"

Zheng Guanying was a famous politician, educator, and writer in the late Qing Dynasty of Xiangshan in China. He was also a leader in modern reform thinking. He compiled the book "Shengshi Weiyan" in Macao, which is regarded as having high value and status in modern Chinese history. In terms of educational thinking, there is a chapter "CangShu" in the book. He emphasized that "广置藏书以资诵读者之为功大也 (it is a great virtue to widely collect books for the readers)". He put forward the method of cultivating talents in the library, the system of collecting books, and proposed to draw on the western library cause and technology to apply to China. He emphasized the necessity of establishing a modern library and strongly advocated the development of the library cause, and regarded the establishment of a library as an important means of enlightening the wisdom of the people and changing the law. Zheng Guanying's new-type library concept and modern reformist ideas had promoted the evolution of China's library to modern libraries.



Fig. 3.   The third volume "CangShu" of the book "Shengshi Weiyan".

Zheng Guanying's "Shengshi Weiyan: CangShu" has contributed to the following aspects of library thought:

- Adding book-buildings and management

In terms of adding book-buildings and management, people can learn from the "CangShu" in "Fig. 3": "宜饬各直省督、抚于各厅、州、县，分设书院，购中外有用之书，藏贮其中，派员专管。无论寒儒博士，领凭入院，即可遍读群书。至于经费，……所有新书，随时添购。(It is advisable to seed supervisors to the direct provinces, departs, states, and counties, and to set up academies to store the purchased useful books from China and foreign countries, and send professional officers to manage it. No matter you are a poor Confusion or a scholar, you can get a credential to go into the building to read all the books. As for funding, … all new books neeed to be purchased at any time.)" "Aspiring readers need to obtain credentials from the local managers first, listing their names and addresses, and then the credentials will be sent to the directors to exchange for licenses in the academies. Next, the readers will be granted to get in the academies and read, and they are limited to read only in the academies. The licenses will be updated every six months. ... The chief-manager will be set up to manage these things." Zheng Guanying put forward specific ideas and thoughts on the establishment of public colleges, book collection, social services, fund management, admission and borrowing rules. Here the prototype of a modern Chinese library can be found, and the importance of Zheng Guanying's thinking is self-evident.

- Literature attention and protection

In "Fig. 3", the "CangShu" is read as: "……海内藏书之家指不胜屈。然子孙未必能读，戚友无由借观，或鼠啮蠹蚀，厄于水火，则私而不公也。乾隆时特开四库，……而所在官吏奉行不善，宫墙美富，深秘藏庋，寒士末由窥见，及寇乱涤經付之一炬。(... The families of book collection in China are countless. However, their descendants may not be able to read the books, and there is no relative to borrow the. Or the rat gnaws and the worms eat the books, and the books are damaged by the water or fire. So the collection is not for the public. During the Qianlong period, he ordered to open all the book-buildings. ... However, the officials didn't implement the order well. They used the money to beautify the walls outside and to flatter the rich, hide the collection in the buildings so that the poor scholars wouldn't be able to read.

When the bandits come, the books were burnt or flooded.)" It can be seen that the ancient documents in the book-buildings are destroyed or damaged to the degree that couldn't be repaired due to the reasons such as water, worms, war, or sail and so on. The loss is serious, and it is hard to escape the fate of a library without a book. Documents are protected for the purpose of inheriting culture and for future generations to make full use of them. Regarding the rescue and protection of ancient books in China, Zheng Guanying was deeply worried and helpless. He knew the importance of a country's book collection culture and inherited excellent traditional culture. He called on the country to provide scientific guidance on the effective use and management of ancient books.

- Book reading and cultivating people

Zheng Guanying mentioned in the "School" chapter in "Shengshi Weiyan" that the establishment of a book library is the most basic and most important way to cultivate talents, and it is a wise way. In the "CangShu", he mentioned: "海内之士多有枕经葃史、博览群书者 (Many people in the country study hard and read books a lot)". "知藏书之为遍多，而广置藏书以资诵读者之为功大也。(There are many people who know to collect books, and it is a great virtue to widely collect books for the readers.)" "枕经葃史" refers to the fact that the scholars also leaned on the classics of the sutra scriptures when they slept. It is to indicate the scholars' hard-studying to describe the scholars' obsession in the books. The "广置藏书" is for the convenience of the people to read. It is the purpose of book collection to enlight the wisdom of people. Zheng Guanying's two sentences pointed out that those who have a history in the past, who have made great contributions to the society and have a far-reaching influence, are all passionate about reading and love books. Book recitations are helpful for intellectual development, acquiring abilities, improving knowledge, and inheriting culture. In the "CangShu", there is a translation of "On the Regulations of the Museum of the British Museum in London", and he also mentioned: "英国近数十年来，人但诩其称雄宇内，人才辈出，而不知其培植人才之法，有以致之也。此正所谓人才得而国家兴矣。(In the past few decades, people in the United Kingdom have been proud and talented, but we don't know their way to cultivate talents. If there were, we would apply it in our country. This is the so-called talents for the country's prosperity.) However, the establishment of academies of classical learning, ... can be imitated and followed, and the experience of cultivating talents will be thriving along with the academies. I put great hope on it.)" It can be seen that Zheng Guanying believed that the rise and fall of the country is closely related to the books and people-cultivation, emphasizing the virtue of books to cultivate people. And he hoped that China can attach importance to the social value of the cause of the library and fully play the educational function of the library.

- Directly pointing out the insufficiencies and judgment

In the "CangShu" in "Fig. 3", Zheng Guanying promoted the role of the "Western Countries" library undertakings in social education. He also pointedly criticized the feudal library buildings in China, pointed out its disadvantages, and looked directly at the insufficiencies and limitations. He pointed out: "如法兰西书楼五百所，藏书凡四百五十九万八千册，俄罗斯书楼一百四十五所，藏书凡九十五万三千册；……罗马大书院除刻本外更有钞本三万五千册，细若蝇头，珍如鸿宝，洵数典之巨观，博学之津梁也。(For example, there are 500 libraries with 4,598,000 books in France, 145 libraries with 953,000 books in Russia .... In addition to the engraved book, there are 35,000 copies of transcripts in Rome Academy. The books are comprehensive in categories, and are precious as treasures. They are the great achievements of the classic-collection, and the core of the knowledge.)" "独是中国幅员广大，人民众多，而藏书仅此数处，何以遍惠士林。(Even if China has a large territory and a large number of people, there are only a few of them collecting books. So how can we benefit all the scholars?)" He added: "然子孙未必能读，戚友无由借观，或鼠啮蠹蚀，厄于水火，则私而不公也。(However, their descendants may not be able to read the books, and there is no relative to borrow the. Or the rat gnaws and the worms eat the books, and the books are damaged by the water or fire. So the collection is not for the public.)" "所在官吏奉行不善，宫墙美富，深秘藏度，寒士末由窥见，及寇乱洊经付之一炬。(However, the officials didn't implement the order well. They used the money to beautify the walls outside and to flatter the rich, hide the collection in the buildings so that the poor scholars wouldn't be able to read. When the bandits come, the books were burnt or flooded.)" This shows that Zheng Guanying had compared modern Chinese feudal collections with libraries in western countries, and had also recognized the hindrances of feudal libraries to the dissemination of modern Chinese literature and enlightenment of people's wisdom, such as "私而不公 (for private rather than public)" and "奉行不善 (didn't follow the order well)". He directly pointed out the disadvantages and crux of the book culture in the feudal era of China. Zheng Guanying's thoughts on the improvement of the new-style library have played an important role in the establishment of modern libraries in China. At the same time, he deeply believed that "若合天下之才智聪明，以穷中外古今之变故，标新领异，日就月将，我中国四万万之华民，必有出于九州万国之上者。(If the wisdom of the world is combined to study on the changes in the ancient and the modern, to create and guide, to update the knowledge, there must be someone to be the best one of the world in the forty million people of China.)"

## V. WANG YUNWU'S "FOUR-CORNER INDEXING SYSTEM"

Wang Yunwu (1888-1979), a native of Xiangshan, Guangdong, a modern publisher, general manager of Commercial Press, and a library scientist. He was also the former president of Zhenqun Society, dean of Zhabei Preparatory School for American Studies, secretary of the president of the Nanjing Provisional Government, editor-in-Chief of the "Democratic News", director of the Commercial Press Translation Institute, member of the Index Committee of the Chinese Library Association, chairman of the Shanghai Library Association, preparatory member and vice chairman of Shanghai Library, and director of Oriental Library.

In 1924, feeling the inconvenience of using the radicals-indexing method, and being inspired by the telegram code,

Wang Yunwu began to be enthusiastic about the word-checking method. So, there was the "Number Indexing Method" published in "Oriental Magazine", Volume 22, No.12, in May 1925. After innovation and perfection, a separate edition of the "Four-corner Indexing System", with Cai Yuanpei and Hu Shi writing the preface, was published in September 1926. In 1928, adopted by the National Education Conference, the National Order promoted the use of the four-corner indexing system. In December 1933, the "Four-corner Indexing System: Attached Character-indexing Lists"" was published. In 1934, Wang Yunwu said in his report to the students of the first business workshop of the

Commercial Press: "Reading without a reading method can easily ruin time and spirit. So how do you start reading? I thought that we should study library science first, and then we could get guidance when we were reading." In 1964, the four-corner indexing system became one of the four index methods proposed by the Chinese character search method group. At that time, various party and government agencies, libraries, schools, and publications in the country also rushed to use the four-corner indexing system for book classification. Even Chinese books in the libraries such as the Library of Congress and Harvard University Library used the four-corner index for classification.
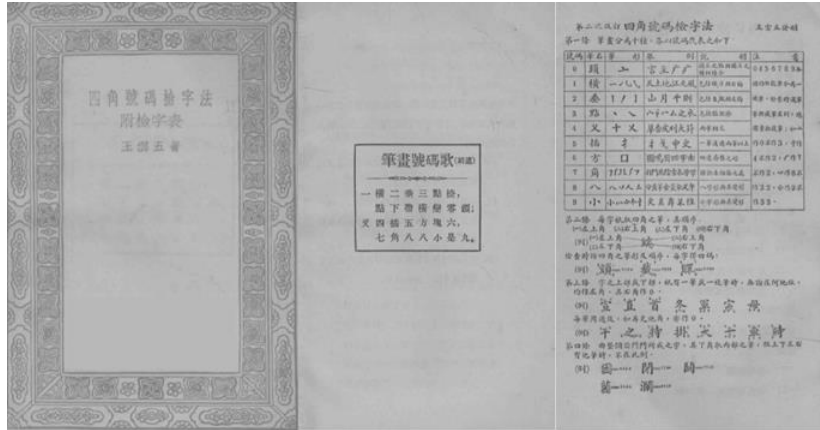


Fig. 4. Title page and foreword page of "Four-corner Indexing System".

As shown in the third small figure in "Fig. 5", the four-corner indexing system divides the strokes of Chinese characters into ten types: 头 tóu, 横 héng, 垂 chuí, 点 diǎn, 叉 chā, 插 chā, 方 fāng, 角 jiǎo, 八 bā, and 小 xiǎo, represented by the corresponding one of the ten digits 0-9. (After each stroke is used, if it refills another corner or no stroke shape is available, it needs to be written with a "0".) Each Chinese character is numbered in the order of the upper-left, upper-right, lower-left, and lower-right four-corner pen strokes, which means that a Chinese character is represented by four numbers. The second small picture shows the formula in verse of four-corner indexing system: 一横二垂三点捺，点下带横变零头；叉四插五方块六，七角八八小是九。 [1 for 横 (héng, horizontal stroke), 2 for 垂 (chuí, vertical stroke), 3 for 点捺 (diǎn nà, point and right-falling stroke), and it will be 0 called 头(tóu, point with a horizontal stroke) when there is a point with a horizontal stroke; 4 for 叉 (chā, cross), 5 for 插 (chā, sticker), 6 for 方 (fāng, "口" shaped strokes), 7 for 角 (jiǎo, angel), 8 for 八 (bā, a left-falling stroke with a right-falling stroke), and it will be 9 when it is shaped as 小 (xiǎo, strokes shaped like the character 小).] The author makes a simple combing of the word detection method of Wang Yunwu's "Four-corner Indexing System", as shown in the following "Table I":

TABLE I. EXAMPLE OF WORD DETECTION IN THE "FOUR-CORNER INDEXING SYSTEM"

| Number | Name of the stroke | | Shape of the stroke (Examples) | Explanation | Indexing examples |
|---|---|---|---|---|---|
| 0 | Complex strokes | 头 tóu | 亠<br>停 tíng、市 shì、高 gāo、立 lì… | A point with a horizontal stroke<br>Numbered as 0 | 方 0022, 死 1021 |
| 1 | | 横 héng | 一、丿、乚<br>元 yuán、非 fēi、玩 wán、至 zhì… | horizonal stroke, rising stroke, right hook<br>Numbered as 1 | 一 1000, 非 1111 |
| 2 | Single stroke | 竖 shù | 丨、丿、亅<br>岂、何、行、商…… | vertical stroke, falling stroke, right hook<br>Numbered as 2 | 制 2220, 能 2121 |
| 3 | | 点 diǎn | 丶、㇏、宀<br>穴 xué、恶 ě or è、状 zhuàng、逃 táo… | point, right-falling stroke<br>Numbered as 3 | 河 3112, 室 3010 |
| 4 | | 叉 chā | 十、乂、ナ<br>花 huā、化 huà、什 shén、付 fù… | two strokes cross with each other<br>Numbered as 4 | 待 2424, 安 3040 |
| 5 | | 插 chā | 㞢、扌、主<br>或 huò、更 gēng or gèng、我 wǒ、城 chéng… | Getting through two or more than two strokes<br>Numbered as 5 | 掉 5104, 拜 2155 |
| 6 | Complex strokes | 方 fāng | 口、囗、甲、由<br>兄 xiōng、西 xī、里 lǐ、百 bǎi… | Neat sides, square (rectangle), square with other strokes on the up or down sides<br>Numbered as 6 | 指 5106, 四 6021 |
| 7 | | 角 jiǎo | 厂、门、乛<br>刀 dāo、用 yòng、反 fǎn、军 jūn… | Where horizontal and vertical strokes meet<br>Numbered as 7 | 朋 7722, 包 2771 |
| 8 | | 八 bā | 八、𠆢、丷、人<br>遂 suì、父 fù、午 wù、走 zǒu… | 八 shaped strokes and its variants<br>Numbered as 8 | 答 8860, 欲 8768 |
| 9 | | 小 xiǎo | 小、忄、⺌、个<br>料 liào、亲 qīn、秒 miào、木 mù… | 小 shaped strokes and its variants<br>Numbered as 9 | 咪 6909, 精 9592 |

The contents of "Table I" are far from enough to cover the entire contents of the "Four-corner Indexing System", such as "cut corners", "fifth corner", appended corners, special "行" shaped characters, and other index methods and examples. With the popularization of pinyin sorting and indexing, the four-corner indexing system has been ignored for a long time, with the shortcomings that "there are many repeated codes, and it is inconvenient for the computer input; the demand is small, and it is not necessary unless when reading ancient books." It is far from enough in society's attention and practical use, and the current utilization rate is extremely low. However, the "Four-corner Indexing System" has affected China's library and material retrieval and information retrieval for more than half a century, and has made great contributions to the scientific and academic research of document information.

- It is not necessary to know the radical, the strokes, and the pinyin. This system avoids the difficulty in accessing the classification and order of radical divisions, the time-consuming and laborious stroke calculations, the rare words for difficult retrieval, the controversial stroke order, and the pinyin indexing that reduces the recognition due to the indistinct distinction between the various local dialects or consonants and other issues.

- "Getting code according to shape, and searching word by code". Depending on the type and characteristics of the stroke shape, the characters are checked by numbers, so that each character has its own fixed number and position. It does not need to be combined with other word detection methods. Even the complacated or rare characters are easy to find, and it has a large superiority, which makes the retrieval of Chinese characters from disorder to order.

- High retrieval and strong sequence are conducive to the unified cataloging of documents, as well as librarians' guidance and readers' review, readers' specific retrieval needs, facilitating the centralized arrangement of books and documents, and the retrieval and identification of digital documents.

- Wang Yunwu himself was an expert in library science and a library professional. In library theory, the "Unified Classification of Chinese and Foreign Libraries" and the "Four-corner Indexing System" created by his research on library classification are important contributions to the development of library classification and retrieval methods. The "Four-corner Indexing System" is an important invention of Chinese characters following the radical check method and stroke check method, which solves the big problem of fast and accurate positioning of Chinese characters in Chinese character retrieval. It can be said that his "Four-corner Indexing System"

laid the foundation for the classification of modern Chinese bibliography.

## VI. CONCLUSION

In the past hundred years of modern and contemporary China, a group of pioneers from Xiangshan, from Yung Wing to Wang Yunwu, broke through the dark cage and made important contributions to the library cause in China in the process of exploring the way to save the country and the people. This article intends to make a preliminary exploration of this, hoping to attract more scholars to study the history of the library in China, the construction of the humanities bay area and the history of the development of Xiangshan culture.

## REFERENCES

[1] Yung Wing, My Life in China and America [M]. Changsha, Hunan People's Publishing House, 1981.

[2] Gao Zonglu, Correspondence from Chinese Children in the United States (C) [M]. Taibei: Biographical Literature Press, 1992. (in Chinese)

[3] Yung Wing, My Life in China and America [M]. Xu Fengshi, Yun Tieqiao, trans. Hunan People's Publishing House, 1981: 23. (in Chinese)

[4] Wu Yixiong, Yun Wenjie, ed. and trans. A Collection of Yung Wing's Paper in the U.S. [M]. Beijing: Social Sciences Academic Press(CHINA), 2015. 1. (in Chinese)

[5] Zhang Kaiyuan, Trails of the Pioneers: A Review of the Yung Wing's Literature Collected by Yale [A]. Yung Wing and China's Modernization [C]. Zhuhai: Zhuhai Publishing House, 1999. (in Chinese)

[6] Tsai Ting Kan, Lao Jie Lao [M]. Photocopies of the Original, 1922. (in Chinese)

[7] Ye Tinggan, Lao Tzu Index (formerly known as: Lao Tzu Tao Te Ching Beads) [M]. Taiwan: Taipei Literature, History and Philosophy Publishing House, 1979. 10. (in Chinese)

[8] Zheng Guanying, Shengshi Weiyan vol.3 [M]. 1898. (in Chinese)

[9] Zheng Guanying, Shengshi Weiyan [M]. Beijing: Huaxia Publishing House, 2002. (in Chinese)

[10] Wang Yunwu, Four-corner Indexing System [M]. Beijing: Commercial Press, 1933: 1. (in Chinese)

[11] Gao Mengdan, Preface [A]. Wang Yunwu, Four-corner Indexing System [M]. Commercial Press, 1933. (in Chinese)

[12] Ding Mu, Zhong Yun, How to learn Four-corner Indexing System [M]. Beijing: Commercial Press, 1955. (in Chinese)

[13] Pan Shuguang, Introduction on the Indexing of Ancient Books [M]. Beijing: Bibliographic Literature Publishing House, 1984. (in Chinese)

[14] Chang Minglin, Study on Wang Yunwu [D]. Hebei Normal University, 2008. (in Chinese)

[15] Pan Shuguang, "Needlework", "Beads" and Dictionaries [J]. Study on Dictionaries, 1980 (04): 230-235+277. (in Chinese)

[16] Wang Changming, Textual Research on Two English Letters from Yung Wing [J]. Lingnan Culture and History, 2018 (02): 59-64. (in Chinese)

[17] Tsai Ting Kan, "Lao Jie Lao" Excerpts [J]. Corpus Linguistics, 2014, 1 (02): 81-90+115. (in Chinese)

[18] Wang Yage, Yung Wing and Library [J]. Journal of Academic Library and Information Science, 2006 (05): 90-93. (in Chinese)

[19] Wang Yage, Hou Hanqing, On the First Chinese Concordance Dao de ring Concordance [J]. Journal of The Library Science in China, 2007 (02): 81-85. (in Chinese)

[20] Cheng Huanwen, Chinese Investigation of Western Libraries in the Late Qing Dynasty [J]. Library Theory and Practice, 2004 (3): 87-91. (in Chinese)

[21] Chen Zhenwen, He Jinchuan, Invention and Development of the Four-angle Number Indexing System for Chinese Characters [J]. Journal of Handan College, 2013 (4): 75-80. (in Chinese)