

Andrew H. Woods in China and the United States: A Medical History Study at the Rockefeller Archive Center

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Early experiences of Andrew H. Woods in China and the United States

In 2017, my research goal at the Rockefeller Archive Center (RAC) was to study archival material on American neurologist Andrew H. Woods (1872-1956). At the core of my research was an investigation of the relationship between Woods and the establishment of Chinese neurology.

In 1872, Andrew H. Woods was born in Hartwood, Virginia. He obtained a medical degree from the University of Pennsylvania in 1899 and became a resident at the University of Pennsylvania Hospital after graduation. In 1900, he arrived in Canton, China, for the first time. He worked as a surgical trainee, neurologist and dermatologist at Canton Hospital. Then, he returned to the United States in 1907 and worked as an intern at a private hospital in Bryn Mawr, Philadelphia. In 1908, Woods transferred to the Pennsylvania Hospital as an anesthesiologist and also served as a neurological assistant physician at the Philadelphia hospital.¹ Between 1908 and 1911, Woods had multiple responsibilities. He was a lecturer in neurology at the Pennsylvania Medical School, an assistant physician in neurology and an assistant physician in psychiatry at the Philadelphia Hospital. Having various roles became a feature of many clinicians in that era. Although medical science was divided into distinct subjects, the boundaries between clinical subjects were not strictly defined, especially in non-surgical departments. So, it provided a space for many doctors to change their clinical roles. By the 20th century, clinical medicine sub-divisions were based on the organ system, and no longer classified according to clinical symptoms. Therefore, diseases in different department may show the same or similar symptoms. For example, neurological diseases could show skin symptoms. A neurologist was also a dermatologist, which was relatively easy to understand.

In 1912, Andrew H. Woods came to Canton again, where he served as principal of the Canton Christian College and at the same time he was a neurologist and dermatologist at the Canton Hospital. From 1913 to 1915, Woods, as the chairman of the management committee of the Canton Hospital, once worked with Henry S. Houghton at Harvard Medical College of China (hereinafter referred to briefly as Harvard Medical School in Shanghai) until 1917, when the Harvard Medical School in Shanghai closed due to the lack of funds. Woods had to return to the United States. At that time, he worked at the Neurology Department of the General

Hospital of Philadelphia. Until 1919, Woods participated in the Rockefeller Foundation's project to invest in the construction of Peking Union Medical College in China. In the materials submitted to Rockefeller Foundation by Woods, he clearly stated that his personal professional specialty or preference was neurological diseases. Woods' career changes can be reflected in Table 1.

Table 1: Employment History of Andrew H. Woods in China and the United States (1900-1919)

Time	Location	Position
1900	Canton, China	Surgical trainee doctor, neurologist and dermatologist
1907	Philadelphia, Bryn Mawr	Intern
1908	Pennsylvania Hospital	Anesthesiologist
1911	Pennsylvania Hospital	Neurology Lecturer, Neurology Assistant Physician, Psychiatric Assistant Physician
1912	Canton, China	Principal of Lingnan Medical School, neurologist and dermatologist at Canton Hospital
1913	Shanghai, China	Harvard Medical School of China
1917	Philadelphia General Hospital	Neurosurgeon
1919	Peking Union Medical College	Neurosurgeon

From the work experience of Andrew H. Woods, we can see that, between 1900 and 1911, his career was full of uncertain choices, working at surgical, neurology, dermatology, anesthesiology, or psychiatry departments. This reflected on the fact that the division of clinical medicine was relatively confusing at that time. Meanwhile, it was difficult to make a strict distinction between different subjects. For the neurological and mental diseases, there were many similar symptoms and the pathogenesis was also difficult to reveal. Therefore, in the early 20th century, the clinician had to play multiple roles at the same time.

Andrew H. Woods' main work could be found in his published papers (see Table 2). While completing the clinical work, Woods wrote many clinical research papers. In 1907, he returned to the United States and in 1908 he wrote his first report on work in China. From 1908 to 1918, his papers were published almost every year, focusing clinical disease discussions, such as multiple sclerosis of syphilis, neurological manifestations of Hodgkin's lymphoma, amyotrophic lateral sclerosis, muscle hypertrophy with weakness, habit tics, or traumatic sciatic nerve transection. The content of the paper showed that Woods gradually turned his attention to neurological diseases. From 1912 to 1914, Woods worked in Canton and Shanghai. The shift of the work place made his work become unstable during that time. Therefore, there was no publication of his papers. After 1908, the professional research direction of Woods was basically defined as neurology. From 1900 to 1907, Woods worked in China most of the time, so it could be said that working experience in China laid the foundation for the professional direction of Woods.

Table 2: Bibliography of Andrew H. Woods' Papers (1908-1918)

No.	Title	Periodical	Pub. Date
1	Medical Practice in Canton, China	<i>The University of Pennsylvania Medical Bulletin</i>	1908.8
2	The Syphilitic Form of Multiple Sclerosis	<i>Interstate Medical Journal</i>	1909
3	The Nervous System in Leukemia and Hodgkin's Diseases	<i>The Pennsylvania Medical Journal</i>	1910.4
4	Trauma as a Cause of Amyotrophic Lateral Sclerosis	<i>Journal of the American Medical Association</i>	1911.6.24
5	Muscular Hypertrophy with Weakness	<i>Journal of Nervous and Mental Diseases</i>	1911.9
6	Segmental Distribution of the Spinal Root Nucleus of the Trigeminal Nerve	<i>Journal of Nervous and Mental Disease</i>	1913
7	Habit Tics, With a Case	<i>China Medical Journal</i>	1915.2

8	Traumatic Severance of Sciatic Nerves	<i>Journal of the American Medical Association</i>	1915.12
9	Beriberi (in Chinese). Special	by a Chinese organization	1917
10	Diseases of the Spinal Cord among the Chinese.	<i>China Medical Journal</i> 116	1918

Andrew H. Woods and Peking Union Medical College

In 1914, after the Rockefeller Foundation made its first visit to China, it made clear its intent to invest in the establishment of two medical schools in China, "one was in the south and the other was in the north," of which "South" was Shanghai and "North" was Peking.² At this time, Andrew. H. Woods was working at Harvard Medical School in Shanghai, which was in line with his recommendation to the Chinese Medical Board (CMB) to go to Harvard Medical School of China in Shanghai.³ In 1917, due to the war and financial constraints, the Rockefeller Foundation eventually cancelled the idea of establishing a medical school in Shanghai.⁴ It decided to invest all of its financial resources in the project of establishment of the Peking Union Medical College.

With the planning and implementation of the Peking Union Medical College project, the constructions of the Peking Union Medical College and the setting up of the hospital department were formally put forward.

In the 1910s, neurology and psychiatry were separate disciplines in the United States. However, in view of the need to establish medical schools and hospitals in China, the Executive Committee of the Medical Faculty had different opinions about how to establish hospital departments. The founding director of the Peking Union Medical College Hospital department was almost an American expert. As an American doctor, Andrew H. Woods worked at the Harvard Medical School in Shanghai, China, and he was already a famous neurological expert. Therefore, the administrative board sought and contacted with Woods on the one hand and on the other hand, pondered on how to deal with the positioning of neurology.

In 1918, as a member of the CMB,⁵ Andrew H. Woods was still at the General Hospital of Philadelphia. However, Woods wrote a letter to Franklin C. McLean, stating his experience and achievements in neurology, and wanted to return to China to continue his clinical teaching in neurology. The desire for practice was based on his previous work experience at Harvard Medical School in Shanghai.⁶ Woods clearly stated that he was willing to travel to Shanghai, China because he knew that Shanghai had a weak neurological program and there were vacancies in research. However, as mentioned earlier, the CMB at this time canceled the Shanghai project. Therefore, in his reply, McLean suggested that Woods could go to the Peking Union Medical College, and also explained that the administrative board did not make any definitive decisions on the establishment of neurology at the hospital or in relation to the psychiatric department in Peking. Therefore, McLean could not give him a concrete reply.

After that, Mclean recommended Andrew H. Woods for a meeting in Baltimore with Adolph Meyer, a famous psychiatry professor in the United States. From the reply of Meyer to McLean, it could be seen that Meyer held a positive attitude towards the clinical and technical capabilities of Woods, and supported him to conduct research in neurology and psychiatry. With an acknowledgement from a prominent American expert in hand, McLean immediately wrote to Woods, hoping that he would travel to Peking, in the fall of 1920. At the same time, McLean sent a letter to the Rockefeller Foundation and said that Woods had the ability to pursue neuropsychiatric work in Peking. He recommended Woods take a position as a four-year associate professor of neuropsychiatry at the Peking Union Medical College. After discussions with the administration and members of the Board of Trustees, McLean officially informed him of the appointment decision and explained that although Woods would be an associate professor, he was actually responsible for the administration of the neuropsychiatric department of Peking Union Medical College Hospital. At that point, the appointment of Woods as the director of neuropsychiatry at the Union Medical College was very clear.⁷

In 1919, after the Board of Directors issued a formal appointment notice, Andrew H. Woods asked the Board about the travel, rent, salary and allowances in Peking, and about issues of children's education in Peking. He inquired with the Board of Directors: Does the position of "assistant professor" denote that people with that title have full management authority to the department? Woods believed that in the complex field of neuropsychiatry, the position of "professor" should be established. If the board thought that he was not qualified for the

professor, he would not accept the appointment.⁸ Besides, in terms of the setting of disciplines and departments, questions raised by Woods were mainly concerned with the fact that the school placed neuropsychiatry within the internal medicine department. Because of the joint management of the medical school and the hospital's neuropsychiatric department, Woods thought the positioning of neurology was very unclear.

Regarding whether the neuropsychiatric department was to be separated from internal medicine, the Board's reply was:

The establishment of departmental posts should be slowed down. Before establishing an independent neuropsychiatry in China, there is still a large amount of basic work to do. In this way, the budget for the PUMC will increase dramatically. Therefore, neuropsychiatry cannot be separated from internal medicine.

On the issue of neuropsychiatric management, the Administrative Board believed the question of whether neuropsychiatry should be developed in Chinese medical schools or not still needed further discussion. Giving Andrew H. Woods the position as an associate professor of neuropsychiatry was not because of any insufficient academic credentials, but because of the necessity of setting up neuropsychiatry in PUMC. In this regard, McLean also commented on the status of Chinese neuropsychiatry.

In neurology, we can ensure that there are a large number of cases of neurological diseases. Neurology teaching and clinical practice are in urgent need of an expert to lead the appointment. Woods is hoping to play its teaching and research expertise in neurology; in the spirit of In terms of science, there are few achievements in China. There are still many problems. It is difficult to get started. It takes many years of effort to develop to a satisfactory stage, and there is currently a shortage of clinically experienced psychiatry professors.⁹

After learning about the circumstances of the position, Andrew H. Woods sent a letter to McLean, expressing that he accepted the appointment as an associate professor of neuropsychiatry at the Peking Union Medical College. To ensure his success at his new post, he decided to go to the neurology department of the Pennsylvania Hospital for a period of time before he went to work in Peking in 1920, to increase his knowledge and skills in neurology. Woods also actively put forward the requirements for building the neuropsychiatric department in Peking in terms of human, financial, and physical needs,

provided a purchase list of teaching and experimental equipment, and proposed funding applications for neurological systems teaching and research. He hoped to appoint the department members by himself.

A.H. Woods and Neuropsychiatry

In the autumn of 1920, Andrew H. Woods arrived in Peking and joined the Neuropsychiatry Department of Peking Union Medical College Hospital. In the following two years, Woods sent letters to the Rockefeller Foundation's New York headquarters to express his frustration over repeated delays in appointing a neurological assistant.¹⁰

In fact, the New York side greatly appreciated the ability of Andrew H. Woods to serve as a neurologist and teacher. The administrative board was aware that the objective conditions for the development of neurology in China were immature. At the same time, board members worried that if they did not attach importance to the construction of neuropsychiatry in the Peking Union Medical College Hospital, Woods might leave China. Therefore, the board of directors decided that it was not necessary to separate neurology from neuropsychiatry for the time being. Furthermore, they were considering that Woods might be appointed as a professor of internal medicine.

However, according to the final result, Andrew H. Woods did not compromise on the professorship of internal medicine. In 1923, the Executive Committee of the Peking Union Medical College Trustees informed Woods:

First, from June 1, 1923, the Department of Neurology would be separated from the Department of Internal Medicine to establish an independent department of neurology. Although the name was neurology, a neuropsychiatry course had to be established. Second, since the above-mentioned date, Woods was promoted to be a professor of neurology and served as a director of neurology, but he taught both neurology and psychiatry.¹¹

Departing from the Department of Internal Medicine, Neurology staff, under the guidance of Andrew H. Woods, carried out clinical work and a number of studies. Starting in 1922, Woods had mastered hydrotherapy and physical therapy (including electrotherapy, heat therapy, massage therapy, etc.) in the treatment of neurological and mental diseases.¹² In

1924, Woods participated in a survey in Northern Shantung of a local epidemic of acute lenticular degeneration. This work aroused the interest of Simon Flexner, the director of the Rockefeller Institute for Medical Research. These two persons exchanged a number of letters to discuss the matter. The contents of the letters mainly revolved around an academic discussion of the autopsy results.

On the issue of academic leave, Andrew H. Woods once said he hoped to have a short break every two years instead of a one-year vacation every four years. He believed that it was difficult to find a person more suitable than himself who could combine American neurological research skills with Chinese clinical practice, let alone handing over this work to a "substitute" young man. During his vacation, he visited famous experts in neurology to participate in the Annual Meeting of Neurology to improve neurological knowledge.

In 1924, Andrew H. Woods took a vacation and temporarily left the Peking Union Medical College. Director Roger S. Greene arranged for a neurological assistant physician to perform neurology. However, shortly after being hired, the assistant had to resign due to his wife's serious illness. This presented the neurology department of the Union Hospital with a severe test. Woods had not yet returned from vacation, and at the same time, the temporary "substitute" also had to leave.¹³ Greene contacted Woods in a timely manner, recommending to the board of directors to approve the assistant's departure. Woods made it clear that he would not hire this assistant again in the future.

In early 1925, Andrew H. Woods took the opportunity to return to work at the Neuropathology Laboratory of the Philadelphia General Hospital in the United States. He then traveled to Europe to study at the University of Munich and conducted research with Professor Walther Spielmeyer, a well-known German neuropathologist. Woods was deeply influenced by Spielmeyer's teacher, Emil Kraepelin, a famous German psychiatrist.

In addition to carrying out clinical work in China, Andrew H. Woods wrote a number of research papers (see Table 3 for details). From the published papers, it can be seen that at the time, the category of neurology overlapped with psychology and psychiatry, and many diseases were difficult to distinguish. Woods' papers included: "The early stages of neuropsychiatry," "The map of sudden deafness combined with syringomyelia, tumor formation, snoring, and spinal syphilis," "The occurrence of neurological diseases in China," and "Four infectious spinal cords." The case of poliomyelitis and the case of cerebrospinal

fluid fistula in the frontal sinus show his neurological achievements. In addition, Woods also planned to complete surgery to remove histological incidences of ependymoma. Woods not only published his research results in journals, but also actively presented papers at academic conferences such as the academic meeting of the Chinese Medical Association.

Table 3: Summary of Academic Papers Published by Andrew H. Woods from 1919 to 1926¹⁴

No.	Title	Publication	Time
1	Misleading Motor Symptoms in the Diagnosis of Nerve Wounds	<i>Archives of Neurology and Psychology</i>	1919. 532
2	Problems in the Diagnosis and Treatment of Injuries of the Peripheral Nerves (with C.A.Elsberg)	<i>Archives of Neurology and Psychology</i>	1919. 645
3	Hand and Arm Movements in Peripheral Nerve Injuries	<i>Journal of Nervous and Mental Diseases</i>	1919. 522
4	Deceptive Hand and Forearm Movements in Patients with Nerve Wounds	<i>Archives of Neurology and Psychology</i>	1919. 243
5	A case of Hemiparesis with Choreiform Movements	<i>Archives of Neurology and Psychology</i>	1920. 456
6	The Menace of Insanity to Popular Government	<i>National Medical Journal of China</i>	1921. 306
7	Occipital Lobe Embolism	<i>Journal of Nervous and Mental Diseases</i>	1922. 81
8	Types of Cerebro-spinal Syphilis in China	<i>China Medical Journal</i>	1922. 206
9	Syphilis of the Nervous System. Addresses and Paper	Dedication Ceremony and Medical Conference. Peking Union Medical College,	1922. 413
10	The Medicolegal Aspects of Insanity	<i>National Medical Journal of China</i>	1923. 203

11	Encephalitis Epidemica.	<i>China Medical Journal</i>	1924. 1
12	Fourteen simultaneous cases of an acute degenerative striatal disease; necropsy in one case revealing gross necrosis of the globuspallidus (symmetrical) and substantianigra. (With Lois Pendleton)	<i>Archives of Neurology and Psychology</i>	1925. 549
13	Psychoneuroses Fostered in Infancy	<i>China Medical Journal</i>	1926
14	Sudden Paralysis, Tumor and Hysteria complicating Syringomyelia	<i>China Medical Journal</i>	1926
15	The Incidence of Nervous Diseases in China. (Read at China Medical Association Conference as “Incidence of Organic and Functional Nervous Diseases in China”)	<i>China Medical Journal</i>	1926
16	Four Cases of Polioencephalitis with Apparent Contagion. (Read at China Medical Association Conference as “Four Cases of Poliencephalitis following Pharyngitis”)	<i>China Medical Journal</i>	1926

At the end of 1927, at the invitation of the University of Iowa, Andrew H. Woods tendered his resignation. And in 1928, Board of Directors approved his departure from Peking Union Medical College. In 1929, when he started the University of Iowa, he took a position as professor of psychiatry.

Woods’ Post-PUMC Career

- In 1929, Andrew H. Woods was a professor of psychiatry at the University of Iowa.
- In 1934, Andrew H. Woods was the dean of the Iowa City Psychiatric Hospital.

- In 1943, Andrew H. Woods retired, but still maintained a medical practice in Iowa City.

Significance of the Project

On the whole, before 1908, Andrew H. Woods encountered the academic confusion at a young age. From 1900 to 1907, his work experience in Canton, China, gradually determined the professional direction of neurology. From 1920 to 1926, when Woods worked at the Peking Union Medical College, he dedicated to make neurology become independent. Although he did not completely succeed, he still separated neuropsychiatry from internal medicine, and he himself chose to adhere to the direction of neurology. In 1925, after studying in Germany, Woods changed the academic direction again and gradually turned to psychiatry research.

The contribution of Andrew H. Woods to the establishment of Chinese neurology and neuropsychiatry still requires in-depth research through the sources. His learning experience in Germany also needs to be investigated before we can answer why he eventually chose the direction of psychiatry. Woods' academic work experience in China still needs to be further explored. My thanks to RAC for providing me with the opportunity to complete my medical history research.

Personal Impressions about Visiting and Studying at the Rockefeller Archive Center

My first opportunity to conduct research at the Rockefeller Archive Center (RAC) in Sleepy Hollow, New York was in the summer of 2011. At that time, I was collecting the materials which were used for my nursing history research project. When I studied here, I could deeply feel that RAC, far away from the hustle and bustle of the New York City, provided a beautiful and quiet research environment. In the summer of 2012, I returned with my colleagues. Although the time was very short, I was very fortunate to explore the collections of the Archive Center as a professional scholar, and reviewed a great number of letters, telegrams,

photographs, books and journals which were collected over one hundred years. In the winter of 2017, I visited the RAC for the third time to study the history of neurology.

Each time I came to RAC to investigate various kinds of information and materials, the visits were an emotional experienced. Not only was I very impressed by the collections, storage, and preservation of the archives, but I was moved by the chance to meet with historical figures from more than 100 years ago. The experience reinforced for me the importance of protecting historical data, preserving the history of the words and deeds of individuals and institutions. The RAC has set a perfect example in this regard.

The information age changes society and our lifestyles. It also impacts work in archives. The RAC has complete facilities and good logistical support. The network speed of the Center is extremely fast which provides a convenient way to download all kinds of files, including WORD documents, PDF documents, audios and video files. Studying there has been a pleasure, and one can experience the joy of immersing oneself in historical literature.

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