

The Institutionalization of American Indian Music 1882-1920

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In 1882, the first specialized dissertation on American Indian music came into being in Germany. Theodore Baker, an American musicologist and doctorate student at University of Leipzig, came to America in 1880 and studied Indian music among the Seneca Indians in New York and Pennsylvania. Upon return to Leipzig he completed his “*Über die Musik der nordamerikanischen Wilden*”.

Twenty-seven years after Baker published his dissertation, Frederick R. Burton, preparing for the press what purported to be a “definitive study of American Primitive Music with special attention to the songs of Ojibways”, confessed that “I myself did not read [Baker’s dissertation] until this book was almost ready for the press”. This did not seem to be uncommon, in fact, when Robert Stevenson, in his 1973 article “English Sources for Indian Music Until 1882”, pointed out the pattern of “ignoring predecessors” in the study of American Indian music in the nineteenth century.

Despite this lack of connection and share of information among scholars of Indian music that Stevenson was talking about, the beginning of the decade of 1880 marked an increasing amount of interest and explorations of Native Americans on the part of the academic institutions, and the study of Native American music also began to accumulate. Meanwhile, the scholars working independently on Native Americans at this period were also in connections with each other, producing more works and more comprehensive works than ever before. Their collaboration and connection have been primarily through the establishment of several important academic institutions. In other words, the institutionalization of American Indians in the late

nineteenth century by Euro-Americans played a crucial role in the prosperity of the scholarly works in many related fields, including music, both at the time and looking into the future.

Thus, this paper looks at the historical development related to the institutionalization of American Indian music in late nineteenth century and early twentieth century, from 1880 to 1920s. The examination of institutionalization of the period is sought mainly on three levels, academic institutions, individual scholars, and the formation of academic disciplines. It is my contention that the study of institutions of this period had particularly profound significance not only on the subject itself, but contributes to our understanding on the shape and development of several American disciplines in the subsequent years, including anthropology and comparative musicology, and eventually, ethnomusicology.

Several ethnologists with serious interest in studying Native American music dominated the literature found in this period: Alice Fletcher, Francis La Flesche, Frances Densmore, Jesse Fewkes, John Fillmore, to name a few. In regarding to institutional affiliation, almost all of these scholars have association with one of the major institution at the time for American Indian studies, namely, the Bureau of American Ethnology, also affectionately known as “B.A.E”. With its original name “Bureau of Ethnology”, the BAE was established on March.3, 1879. It came into being when the Congress combined four independent government surveys to create the United States Geological Survey and at the same time, transferred to the Smithsonian Institution the results of diverse anthropological fieldworks previously pursued by those surveys under instructions from the Department of Interior.

Neil M. Judd's book *The Bureau of American Ethnology: a Partial History*, the only book on the history of BAE found in the research for the current paper, provides an elaborate account of the establishment, leaders and authors of the bureau, which has been passed to the history in 1964. According to Judd, the first director of Bureau of Ethnology, Major John Wesley Powell have had contributed most field researches in the study of American Indians. Powell's academic background and his vision for the new institution can be clearly seen in a historical document in B.A.E. File, a letter he wrote to Secretary Baird of Smithsonian Institution on April 2, 1880:

Ethnographic researches among the North American Indians have been carried on by myself and under my direction for the last ten years. During the second session of the 45th Congress, the various geographical and geological surveys were consolidated and reorganized by the establishment of a Geological Bureau in the Interior Department. In the act effecting this change it was provided that the ethnographic researches previously conducted by myself should be continued under the direction of the Smithsonian Institution and an appropriation was made therefore.

These ethnographic studies have heretofore embraced the following subjects:

1. Somatology—skeletons and especially the skull.
2. Philology—languages of North American Indians studied and tentative classification made of linguistic stocks; map of United States prepared to show original habitats.
3. Mythology—large collection, myths of various tribes.
4. Sociology—following line pursued by Lewis H. Mogan (results published by Smithsonian Institution) regarding family, clan, tribe, etc., of North American Indians).
5. Habits and customs, especially mortuary customs and religious ceremonies.

6. Technology—especially houses with reference to domestic life; their arts, implements, and ornaments.
7. Archeology—much done, especially in California, Arizona, New Mexico, Colorado, Utah, and part of Wyoming.
8. History of Indian affairs including treaties, cession of lands by Indians; removals; progress in industrial arts; distribution of lands among them; schooling.

A large number of persons including missionaries and teachers among the Indians, Indian agents, army officers, scholars connected with the colleges of the United States and others are assisting the general work.¹

It is clear from this document that the initial mission for the BAE research did not explicitly include music. Nonetheless, the ethnological documentation of the American Indians did not exclude the social respect of the study, thus music is mentioned and often recorded from time to time, especially when considering the importance of music in the religious ceremonies and mystical cosmologies of American Indians. On the other hand, one can distinctly see the presence of science in every aspect of BAE, from the geological survey of America to the scientific research of ethnology. Many publications of BAE feature the study of special plants found in the life of Native Americans. Even the study of music, as we will see later, is pursued in the spirit of Science, and many articles of Native American music in this period were indeed published in a journal called *Science*.

¹ Judd, Neil M. *Bureau of American Ethnology, A Partial History*. Norman: University of Oklahoma Press, 1967, pp. 4.

Jesses Walter Fewkes, the third BAE chief (director) from 1915 to 1928, visited the Hopi villages in northeastern Arizona in 1889 or 1890, as well as the Pueblo of Zuni in New Mexico. The sixteen wax cylinders of recordings of Hopi songs that he made during these trips are among the first, if not the very first, records ever made of American Indian music. Being recognized as one of the prominent authors of Indian music at that time, Fewkes also came from a science background. With a B.S in natural history from Harvard and A.M and Ph. D in zoology (marine biology) from Leipzig, Fewkes served as an assistant in the Museum of Comparative Zoology at Harvard before he got interested in ethnology during a trip to California. After he joined the BAE in 1895, Fewkes contributed both to archeological and ethnological works. The many recordings he made of American Indian songs are afterwards sent to one of his collaborators, Dr. Benjamin Ives Gilman, a lecturer of psychology of music at Harvard, who later published a book on the analysis of Hopi songs, as well as co-authored with Fewkes to publish on Indian music in the Journal of Ethnology and Archeology, of which Fewkes was the founder. Not surprisingly, many studies on American Indian music are quite scientific in its methodology as exemplified by Fewkes' own work as well as Gilman's analysis on Hopi songs. This will be discussed and compared with other studies of Indian music at this time in later sections.

Overall BAE was a primary institution for the immediate establishment and advancement of the discipline of anthropology before it hit musicology. The study of Native American music in the early stage of BAE was a part of the large project of ethnology and anthropology. Many of the staff researchers of BAE or its collaborators thus had close connections with the prominent figures of American anthropology at that time, such as Franz Boaz, the father of American anthropology, whose early career was at the BAE. As compared to other types of institutions at the time, such as museums and universities, Boaz viewed BAE as a distinctive institution

charged with the investigation of life and custom of Native Americans. After the sudden death of Director Powell in 1902, the Secretary of Smithsonian Institution abolished the title of director of BAE, and appointed the head curator of the Anthropological Division of the U.S. National Museum ‘chief’ of the BAE. Boaz expressed his strong objection to this appointment by arguing the distinctive nature of BAE compared to a museum, in his letter to the editor of the *Science* journal: “The methods and aims of the two institutions are fundamentally distinct. The BAE...it deals with their [Native Americans] languages, institutions, religions, customs. So far as the culture of native tribes is expressed by tangible objects, it may be illustrated in museums, but the whole domain of human culture cannot be represented by museum specimens.”² Music, being among the “intangible” aspect of Native American society, is thus subject to the full investigation in the works of BAE staffs rather than being a museum realm. Boaz himself later worked closely with a trained music specialist John Comfort Fillmore and affirmed the significance of the inclusion of the part of study done by Fillmore. Later on when Boaz was teaching at Columbia University, he also directed several graduate students with a musical background in pursuit of an anthropology degree, such as George Herzog and Helen Roberts, to be discussed in later sections of this paper.

In 1965, BAE staff and functions merged with those of the United States National Museum Department of Anthropology to form the Smithsonian Office of Anthropology. A few years later, the office became the Department of Anthropology of the National Museum of Natural History.

² Boaz, Franz. “The Bureau of American Ethnology.” In *Science*, New Series, Vol. 16, No. 412 (Nov. 21, 1902), pp. 828-831.

Although the BAE has been passed into history, the many publications it produced and its staff and collaborator founded remain among the valuable sources for studies on various aspects of Native Americans until this day. Today, a “List of Publications” can be found on the online database of the Department of Anthropology of American Museum of Natural History, among them valuable literature on the study of Native American music by various authors:

“Termination of the Bureau likewise terminated a history of distinguished publication under its imprint, dating back nearly a century, that includes the well-known Annual Reports, Bulletins, Contributions to North American Ethnology, Introductions, Miscellaneous Publications, and Publications of the Institute of Social Anthropology.”³

Various independent journals was founded around this period under examination in relation to the BAE, either with a founder who is a BAE staff, or published many papers and articles contributed by BAE staff and collaborators. Among them are *Journal of Ethnology and Archeology*, founded by Jesse Fewkes, and *Journal of American Folklore*, which carried the most publications of articles about American Indian music at the time.

Other institutions including universities and museums also played an crucial role in the study and publication of Native American music, among them the most prominent Peabody Museum of Ethnology and Archeology at Harvard University, where Alice C. Fletcher were research staff, and later the Institute of Psychology at Yale University, where Helen Roberts used to work.

³ Clifford Evans, Note to the List of Publications of Bureau of American Ethnology, Smithsonian Institution, 1970.

The scholars of American Indian music in the 1880s and 1890s are almost exclusively associated with such museum and government institutions such as the BAE, Smithsonian Institution, Peabody Museum of Ethnology and Archeology at Harvard, and Office of Indian Affairs (also known later as Bureau of Indian Affairs), among others. In many cases, as illustrated by the case of Fewkes, the ethnologists who recorded the Indian music in fieldtrips are often of science background and lack the proper training to deal with the transcription and analysis of music, and thus turned to the musicologists or composers for help. In other cases, as is the case of Alice Cunningham Fletcher, the ethnologist came from a general background to enter the field of anthropological research of Native Americans and also need to ask for help from the music scholars.

Alice C. Fletcher was one of the most important and influential scholars on Native Americans in late nineteenth century. Her name was known widely in the study of Indian music, not because she has a good training in music herself, but because of her collaboration to bring the music and music scholars into the picture, also because her influence to the later generations of scholars on Native Americans in general and on Native American music per se.

Fletcher received private education, traveled in Europe, helped to found the Association for the Advancement of Women in 1873, and had a career in public speaking, before she joined the staff of Peabody Museum in Cambridge for the research of her series of “Lectures on Ancient America” and later on anthropological research of Native Americans. At Peabody Museum, Fletcher was able to absorb the vision for anthropology and museum of the young and energetic curator, F.W. Putman. A student of Agassiz, Putman had broken with Agassiz to embrace Darwinism, but he was skeptical of the theory of social evolution of Lewis Henry Morgan.

Fletcher's fieldwork in 1881 and 1882 to various Indian territories was sponsored by William Thaw, the Pittsburgh railroad and steel magnate who had become interested in Fletcher's work which she was at his wife's guest house. Later in 1890, Mrs. Mary Copley Thaw created the lifetime Thaw Fellowship for Fletcher at the Peabody Museum, which enabled Fletcher to write up her Indian studies unhampered by the need to earn a living.

Throughout her career, Fletcher succeeded in establishing working relations with the Omaha, Winnebago, and Dakota Indians of the Rosebud Reservation. However, her most well known contribution is the most well documented and detailed study of the Omaha Indians of Nebraska, in collaboration with her life-long assistant/colleague and son of adoption, Francis La Flesche.

La Flesche was one of the very few Native Americans to have a career as an ethnology researcher and to be involved in the institutionalization of Native American culture, a primarily Euro-American endeavor. Francis was from a prominent and progressive Omaha Indian family, whose father, Joseph La Flesche was half French and half Indian. Joseph was also the last chief of the Omaha tribe, thus occupying a special position in contact with the ethnologists studying their tribe. In 1881, Francis La Flesche became the assistant and Omaha informant of Alice Fletcher, the beginning of their personal relationship, and later became her life-long collaborator.

However, before meeting Fletcher, La Flesche already had experiences working as informant and translator for ethnology researchers at Omaha. In 1878, when John Powell was anticipating the founding of the Bureau of Ethnology, he sent linguist and ethnologist James Dorsey to collect information among the Omahas, where Dorsey spent two years. Although at a young age, Francis was quite involved with the Omaha tribal rites when Dorsey was in Omaha. According to his biographer, Joan Mark of Peabody Museum at Harvard, it was likely that

Francis La Flesche got the idea of collecting songs in their ceremonial context through his work with Dorsey: “When Dorsey asked Francis about the songs connected with the ceremony of the sacred pole, Francis told him it would be very difficult to get them, for it was considered sacrilegious to sing them apart from the ceremony and only those in charge of the ceremony knew them. But, Francis acknowledged, ‘ I myself would like to know it all’ .”⁴

Alice Fletcher was appointed Special Agent of the Office of Indian Affairs in 1882, where she worked on the land allotments to the Omahas. Later La Flesche also joined the staff of the Office of Indian Affairs, which he served until 1910, when he was transferred to BAE. He served in BAE as a researcher until his retirement in 1929.

La Flesche produced two major series of studies throughout his career: first on Omaha tribe, which was the result of long term collaboration with Fletcher, published in the annual reports of BAE as well as a book entitled *The Omaha Tribe*. The second series focus on the study of the ritual life of Osage tribe, a people near in kinship to his own. *The Osage Tribe* was published also in the annual reports of the BAE as well as the Bulletin of the Bureau.

In general, three groups of people-composers, popular song writers, and ethnologists-define the major types of positive responses to Indian music by Americans with European backgrounds in the late nineteenth century. Among them are those ethnologists who took serious interest in studying Indian music, such as Alice Fletcher, Francis LaFlesche, Jesse Fewkes, to name a few.

⁴. Mark, Joan. “Francis La Flesche: The American Indian as Anthropologist”. In *Isis*, Vol.73, No.4 (Dec. 1982), pp.499.

However, as Fewkes had to ask Gilman for help in dealing with the music, it was a common practice for the ethnology researchers to go into the field and record everything and bring back the records of Native American music and songs for a collaborative music scholar to analyze.

"Pioneer ethnologists faced two problems. First, they had to eschew the musical predispositions of their own culture and hear Indian music on its own terms. They overcame this partly by going into the field to listen. Second, they had to develop techniques for describing this music in print for comparative purposes. A few quickly realized the value of mechanical recordings; Jesse Fewkes first made wax cylinders on an Edison machine in March 1890.⁷ But the recordings themselves were fragile, and variations in the speed of the machine frequently produced distortions. Lacking the skills they needed for writing down the music, the ethnologists turned to professional music scholars, who were familiar with standard notation and could transcribe what they heard. John Comfort Fillmore (1843-98), a teacher and writer of music textbooks, had the talent the ethnologists thought would help."⁵

These collaborations, dating back to 1880s, made possible the development of more specialized study of Indian music by scholars with training usually in Western art music and composition, and later both in music and anthropology. It was not until 1910s when this kind of specialized music study of Native American music became thriving, with emerging scholars such as Helen Roberts and George Herzog, who eventually are among the founders of the comparative musicology.

⁵ McNutt, James. "John Comfort Fillmore: A Student of Indian Music Reconsidered." In *American Music*, Vol. 2, No. 1 (Spring, 1984), pp. 63.

In 1888, John Fillmore was invited by Fletcher to study and analyze some Indian songs she brought back from her field trip. As Fletcher explained later, "For several years ... I had been gathering and examining aboriginal songs, and had discerned in them musical problems that required for their solution not only technical skill, but a broad and comprehensive culture. I sought long and widely to find one with the requisite attainments and the requisite courage to enter this unknown field and to grapple with its unknown problems. At last I was directed by some musical scholars to Professor Fillmore." Fletcher gave Fillmore access to her phonograph records and transcriptions, and later, Fillmore also went to the Omaha reservation in Nebraska with the company of La Flesche, to listen to the songs firsthand. After they returned La Flesche spent a week at Fillmore's home, where they worked together studying the music obtained on the trip. Not long after Fillmore began his study, he made an assertion that he continued to elaborate throughout his career on Indian music, which also received numerous critique ever since:

"It seems clear that ... the sense of key-relationship and harmonic sense...is at least subconsciously present in the Indian mind. For when the melodies are given in correct pitch and with natural harmonies the Indian soon come to recognize and enjoy them...My experience...has led me to think...that the harmonic sense is universal. It seems clear to me that the course of these melodies can be accounted for in no other way than on the assumption that the Indian possesses the same sense of a tonic chord and its attendant harmonies that we do; although, of course, it is latent and never comes clearly forward into his consciousness... At first, perhaps, there is merely a feeling for the tonic chord, arising from the complex nature of a single tone with its consonant overtones".⁶

Fillmore's background in European art music had a great influence on his approach to Indian music. A graduate of Oberlin Conservatory, Fillmore also studied music in Leipzig, Germany.

⁶ Fillmore, "Report on the Structural Peculiarities of the Music", in *Omaha Indian Music* pp.74,76,77.

Upon return to the U.S, he taught at Oberlin, and subsequently at Ripon College in Wisconsin (1868-77) and the Milwaukee College for Women (1878-84) and founded the Milwaukee School of Music in 1885. From 1895 until his death in 1898 he directed the music school at Pomona College at Claremont, California. He also published several textbooks on the principles of harmony and composition. However, according to music scholar McNutt, Fillmore's another book on the history of piano, has an indication of the way he formed his perspective later in the study of Indian music:

"*A History of Pianoforte Music* contains a chapter on the content of music in general and the relationship between music and emotion. Fillmore first argued that the expression of images, events, and abstract ideas in music requires suggestion from some other source. "There has been a great deal of nonsense written about 'the meaning of music,' by writers who wished to connect some definite scenes or events with particular pieces, thus giving them a significance wholly foreign to the composer's intention." He then defined "a musical idea" as "any succession or combination of musical sounds, the separate components of which have a definite, intelligible relation to one another." A musical idea, properly constructed and endowed with the artist's imaginative attention, results in "the embodiment of ideals of beauty." The relativistic tenor of this definition foreshadowed Fillmore's response to non-European music. Later his ability to construct harmonies from Indian melodies (as musical ideas) would lead him to think seriously about Indian conceptions of beauty."⁷

In 1893, after ten years of collaborative study, Fletcher's book *Omaha Indian Music* was published by the Peabody Museum, with "with the assistance of Francis La Flesche" on the title page. The first part of this book is written by Fletcher herself, of fifty pages long. Following a

⁷ Fillmore, *A History of Pianoforte Music* (1883; London: W. Swan Sonnenschein & Co., 1885), pp. 49-50.

brief introduction of the research work involved, Fletcher presented a contextual study of the Omaha songs, including the sociological, political and ritual aspects associated with the singing of the songs, as well as the linguistic patterns of the lyrics. Fletcher classified the Omaha songs into three categories in terms of their function: class songs, social songs, and individual songs. Examples of songs in each category are analyzed in terms of their lyrics and meanings, accompanied by a word-by-word transliteration.

The second half of the book, the musical part of the book, was written by John Fillmore, entitled "Report on the Structural Peculiarities of the Music". In this section Fillmore fully presented his argument on the sense of universal latent harmony within a short exposition of eighteen pages, accompanied by his transcription of ninety two Omaha Indian songs, fully harmonized. Fillmore elaborated his theory on the analysis of Omaha music in seven parts: (1) scales; (2) harmonies implied in the melodies of Indian songs; (3) tonality as indicated by melody and harmony combined; (4) rhythms; (5) phrasing and motivization; (6) quality of tone and correctness of intonation; and (7) The Indian flageolet, its fingering and capabilities as a musical instrument.

Today, Fillmore's theory on the universality of harmonic sense of Indian music sounds like the product of an "armchair musicologist" as it was later called. However, as odd as it may sound, Fillmore worked with Indian informants closely in his fieldwork, and he claimed to have confirmed his assertions, namely, the sense of implied harmony, with his informants, as later he published in one of his journal articles:

"First, to listen to the singer attentively without trying to note down what he sings. This gives me a good general idea of the song. The next step is to note down the song phrase by

phrase. Then I sing with him, and afterwards by myself, asking him to correct any errors in my version, of course noting down carefully all variations....I think there is no difference of opinion between Miss Fletcher, Dr. Boas, and myself, that the Indian invariably means to sing intervals in his songs corresponding to our own chord intervals."⁸

McNutt revealed another level of Fillmore's perspective on Indian music. "Fillmore agreed with many anthropologists and folklorists of his time that folk songs of primitive and "civilized" peoples alike were survivals of an earlier stage of evolution and could be studied as keys to primitive behavior....he declared that "such songs as these of the Navajos, which show us the actual process of transforming excited howling into songs with unmistakably harmonic pitch-relations, take us very far back toward primitive music-making."Fillmore worked up to a classic comparativist analogy: "The Navaho howls his song to war gods directly along the line of the major chord; Beethoven makes the first theme of his great 'Eroica' symphony out of precisely the same material." Yet while his language deferred to evolutionary dogma about the "physical and mental peculiarities of the races," he concluded boldly that "music is precisely the same phenomenon for the savage as it is for the most advanced representative of modern culture."

Fillmore's study on Indian music, as mentioned before, received much criticism as a failed attempt to impose the Western music theory to the music of others. Frances Densmore, another prominent scholar on Indian music, commented that "if Professor Fillmore had limited himself to a statement that the line of least resistance in the songs under analysis appeared to be the upper partials or overtones of a fundamental, he would not have aroused the controversy which befell his work." In particular, Densmore commented on the passage of assertion of Fillmore's theory quoted above that "the substitution of the term "major triad" for "tonic chord" would have

⁸ Fillmore, "What Do Indians Mean to Do When They Sing, and How Far Do They Succeed?" *Journal of American Folklore*, 8 (1895), 139, 141.

protected Professor Fillmore from criticism but he *meant* "tonic chord" in the sense of its meaning to a musician." Nevertheless, there are scholars like McNutt who called for a reconsideration of Fillmore's many advancements and contributions as a pioneer researcher of Native American music. He also argues that Alice Fletcher and Franz Boaz both confirmed the achievements of Fillmore, whose work made their study and ethnography more complex and their understanding of American Indians more thorough.

Besides bringing her Omaha son of adoption La Flesche into the world of anthropology and Fillmore to the investigation of Indian music, Fletcher also influenced another important scholar of Indian music in this period, the previously mentioned Frances Densmore, who produced a large amount of publications on the subject and whose works influenced other scholars decades after her. Like Fillmore, Densmore's training in Western art music was solid. She studied piano, organ and harmony at Oberlin Conservatory of Music from 1884-86, and piano and counterpoint at Harvard. Later on she received an honorary degree from Oberlin. In her early years she attended one of the lectures of Fillmore's on Indian music, and although she became disagree with Fillmore's latent harmony theory later on, she has always maintained the respect toward Fillmore. It was also Fillmore who encouraged Densmore to write to Fletcher about her interest in the study of Indian music. At the time Densmore was teaching piano and lecturing on Wagnerian music dramas, whereas Indian music was a novelty to her. Eventually Fletcher's enthusiastic encouragement made her began her research in 1893, the same year Fletcher's book *Omaha Indian Music* was published.

Densmore's fieldwork covered a wide variety of areas where Native Americans lived, and the valuable recordings she produced are among the most precious today in the archival

collections of such institutions as Smithsonian and Library of Congress. She has donated over one hundred items of cylinders to the Library of Congress, which represent the singers from various tribes of Indians she recorded, such as Chippewa, Sioux, Papago, Yuman, Yaqui, Makah, Clayoquot, British Columbia, Seminole, and Winnebago, only to name a few.

Contrary to Fillmore, Densmore's writings on Indian music consist of a more comprehensive body of literature. Besides transcription and documentation, a very important part of her work, she also wrote about the more general aspects of Indian music in addition to the more theoretical and musical analysis on the topic. Many of her writings concern aspects such as the use of music in the medical treatment of the sickness among Indians, as well as the more musical questions such as scale and interval formation and composition in Indian songs. In the mean time, the wide range of Indian tribal music that Densmore covered in her field trips and the relatively longer time of her career enabled her to acquire a more comprehensive picture of Indian music overall. Her several articles, published in 1910s and 1920s on the "Study of Indian Music in the Nineteenth Century", were among the first summary, review and critique of the study of Native American music as a specialized discipline. These continued to offer valuable information on the picture of that period's study until this day.

As seen in the study of Fillmore and Densmore, as well as other ethnologists, the scholars of Indian music in this period employ a diverse range of different approaches, paying attention to different aspects of the music, as well as adopting different methodological and theoretical tools. In this respect, the collaborator of Fewkes, as mentioned before, offers another yet radically different approach. Dr. Gilman, a lecturer on the psychology of music at Harvard, and later as the curator of Boston Museum of Art, employed the most scientific approach to the analysis of Hopi

songs, seen in his book *Hopi Songs*, published as Volume 5 of the Journal of American Ethnology and Archeology, of which Fewkes was the founder. Gilman's analysis of these Hopi songs collected focused mainly on the accurate measurement and documentation of the pitches employed. His method was called the "phonographic" method, which utilized machines to measure and mathematically calculates the accurate expression of the pitch in Hopi songs as they could not be represented properly on the staff notation. In his book, for each Indian song he analyzed, Gilman offered first an approximate transcription on staff notation, then a detailed chart with the precise representation of the pitches, and an analysis of a few pages on the measurement of these pitches.

As Densmore pointed out in her 1927 article, while Fillmore believed that the Indians have a "subconscious sense of harmony" similar to that which is developed in the music of the white race, Dr. Gilman denied the existence of even a "sense of scale" in Native American songs. Densmore quoted Gilman: " What we have in these melodies is the musical growths out of which scales are elaborated, and not compositions undertaken in conformity to norms of interval order already fixed in the consciousness of the singers. In this archaic stage of art, scales are not formed but forming." He called Zuni songs "examples of music without scale". Concerning the Hopi songs he said: "The singer's musical consciousness seems restricted to a few intervals simplest vibration ratio approximately rendered, and to melodic sequences formed by their various analysis and synthesis and rendered with a certain loose fidelity". Regarding this, Densmore commented:

“Dr. Gilman states that the intervals of the songs varied greatly in repetitions by the same or another singer. This is not in accordance with the experience of the present writer in recording about 1600 Indian songs and may have been due in part to the lack of uniform speed in the

recording phonograph, a defect which was practically corrected in the phonograph a few years later. "⁹

The radically different nature of jobs done on Indian music in late nineteenth century could probably offer one possible reason to the phenomenon that Stevenson pointed out, which I quoted at the very beginning of this paper: the pattern of ignoring predecessors and contemporaries may in part due to the often incomparable approaches to different aspects of music in studies done by different scholars. But this pattern, as we have seen in the articles of Densmore in the 1910s, had been altered since then.

The picture of study of Indian music in the first two decades has been different from before 1900, as the more specialized study began to grow and its literature began to accumulate. In the decade of 1910s, there emerged music scholars who have gone through academic trainings in both music and anthropology, who eventually made their ways to comparative musicology and ethnomusicology in the decades to come. Among them is Ms. Helen Roberts.

Helen Roberts studied music under the direction of Ernesto Consolo, Felix Borowski, Adolf Bruning, and Adolph Weidig at the Chicago Musical College from which she graduated in 1909. After graduation, she served as a music teacher for a family in Mexico in 1910, and from 1911 through part of 1913, she taught piano in Uvalde, Texas. In the summers of 1913 and 1914 she did volunteer archaeological work in New Mexico, under the direction of A V. Kidder from

⁹ Densmore, Frances. "The Study of Indian Music in the Nineteenth Century". In *American Anthropologist*, New Series, Vol.29, No.1 (Jan—Mar., 1927), pp.81-82.

Harvard's Peabody Museum. In 1916, the year of her first publication, Roberts went to Columbia University, on the suggestion of Kidder, to pursue her interest in Indians and to begin graduate work in anthropology under the direction of Franz Boas. "In about 1918, at the suggestion of Boas, she began working in what was then called 'primitive music". (Roberts 1966:1).

"According to Roberts, Boas encouraged her to continue her interest in the music of other people, telling her that if she added anthropological training to all the musical training she already had, including the ability to take musical dictation, she would have the field to herself."

After she completed her M.A in anthropology she went for fieldwork in Jamaica and Hawaii, before she became a research assistant in Anthropology at the new Institute of Psychology, which was established as a five-year Rockefeller Project at Yale University in 1924. In 1931 prominent anthropologist Sapir came to Yale and became her supervisor. Later music scholar and anthropologist George Herzog also came to Yale to teach courses on Native American music and African ethnology. Through her works at Yale, eventually, Roberts came to know Charles Seeger and others with interests similar to her own. After a number of discussions, the American Society for Comparative Musicology was founded in February 1933; the organizing committee included Henry Cowell, George Herzog, Dorothy Lawton, Helen H. Roberts, and Charles Seeger.

The career of Helen Roberts has gone beyond 1920s and beyond the North American Indians to the world of Jamaica and Hawaii, thus is beyond the scope of this paper, which attempts at illustrating the years leading to the formation of such an endeavor called comparative musicology and the crucial role institutions, especially the institutionalization of Native American music have played. However, from the works of this generation of music scholars such as Helen Roberts and George Herzog, we begin to see a picture as a beginning of the modern

study of ethnomusicology, with its approach closely related to anthropology, and its scope the music all over the world. The formation of such disciplinary study in America, as we have revealed in this paper, all stemmed from the study of American Indians in the period under discussion in the current paper.

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