Books on Old Violins and 19th-Century Playing From the Bequest of T. Wesley Mills

by Mary Cyr

Among the rare materials in the Marvin Duchow Music Library is Jacob Augustus Otto's A Treatise on the Structure and Preservation of the Violin (London, 1860), one of 44 books on music bequeathed to McGill in 1915 after the death of Thomas Wesley Mills, McGill's first professor of physiology. Several of the 44 volumes are concerned with the voice and vocal pedagogy, and 11 books deal specifically with violin playing, construction, and technique. These works can help us to trace an unbroken tradition of violin playing in the 19th century by documenting the changes that took place in the violin's construction around 1800 and by providing information about little-known performing practices.


The Marvin Duchow Music Library at McGill possesses a small collection of rare materials, including some 18th- and 19th-century editions and many items relating to musical life in Canada at the end of the 19th and beginning of the 20th centuries. A few pieces of sheet music relate specifically to McGill's history, such as a piano solo by Frances Robinson from 1904 entitled "McGill University Waltz." Although the collection now resides in tidy, well-ordered surroundings within the Strathcona Music Building, until a few decades ago financial restrictions had forced it to lie "scattered about, uncatalogued, in various nooks and crannies of the Faculty building."

It is not surprising, therefore, that a volume on the construction of the violin, Jacob Otto's A Treatise on the Structure and Preservation of the Violin (London, 1860), has gone almost unnoticed in the 75 years it has belonged to that collection (Figure 1). It first came to my attention as a source of information on the care of gut strings. Although gut strings gradually fell out of use during the 20th century, when they were replaced by more stable and durable metal strings, they are still favoured for their mellifluous tone by string players who are reviving pre-1900 playing techniques. They are used today by violin, viola, cello, viola da gamba, violone, and lute players in recordings and performances that feature "original" instruments. The use, care, and construction of gut strings is therefore a topic of considerable interest to many players who perform early music and conduct research into historical performing practices.

Otto's work, along with 43 other books on music, came to the collection as a bequest in 1915 after the death of Thomas Wesley Mills, McGill's first professor of physiology. A renowned scholar in his field, Mills was also
A TREATISE
ON THE
STRUCTURE AND PRESERVATION
OF THE
VIOLIN
AND ALL OTHER BOW-INSTRUMENTS;
TOGETHER WITH AN ACCOUNT OF
THE MOST CELEBRATED MAKERS,
AND OF THE GENUINE CHARACTERISTICS OF THEIR INSTRUMENTS;
BY
JACOB AUGUSTUS OTTO,
INSTRUMENT MAKER TO THE COURT OF THE GRAND DUCHESS OF WEIMAR.

TRANSLATED FROM THE ORIGINAL, WITH ADDITIONS AND ILLUSTRATIONS,
BY
JOHN BISHOP,
OF CHELTENHAM.

SECOND EDITION: GREATLY ENLARGED.

LONDON:
ROBERT COCKS & CO. NEW BURLINGTON STREET,
MUSIC PUBLISHERS, BY APPOINTMENT, TO HER MOST GRACIOUS MAJESTY
QUEEN VICTORIA, AND HIS IMPERIAL MAJESTY NAPOLEON III.
SIMPKIN, MARSHALL AND CO. WHITFARER AND CO.

MDCCCLX.

Figure 1. Title page from Otto's treatise on violin construction included in the Mills bequest. (Marvin Duchow Music Library, McGill University).
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a passionate devotee of music. Several volumes from his personal library are concerned with the voice and vocal pedagogy, and eleven books deal specifically with violin playing, construction, and technique. Although the 19th-century literature on violin playing has thus far received little attention from either scholars or players, it furnishes a wealth of valuable information that, along with early sound recordings, helps us to trace the as yet unwritten history of violin playing in the 19th century.

As a highly respected builder of violins and cellos, Otto excelled particularly in the restoration of old instruments. According to René Vannes, "his instruments, much prized by collectors, are considered rather like museum pieces; their construction is very fine, but their tone is thin." Born at Gotha in 1762, Otto studied at the court in that city with Frank Anthony Ernst, a well-known performer as well as director of concerts and also a luthier. He also became a builder of instruments for the grand duke of Weimar and worked at several other centers including Halle, Leipzig, and Berlin until his death about 1830. In 1817 he published a treatise entitled Über den Bau der Bogeninstrumente und über die Arbeiten der vorzüglichsten Instrumentenmacher. Eleven years later he published a revision which included information on builders and instruments. An English translation by Thomas Fardely, printed in London in 1833, failed to achieve critical acclaim. In 1848 the revised edition was newly translated with additions and notes by John Bishop and published in London, and in that form it underwent severalprintings until the fourth edition in 1891. The copy preserved in McGill's collection is the second edition of Bishop's translation, published in 1860.

Otto's volume was cited in several other 19th-century works, such as Edward Heron-Allen's Violin-Making as It Was and Is (2nd ed., London, 1885). Otto's is the earliest of the historical works mentioned by Heron-Allen, and he describes it as "well-known" and especially valuable in the translation by Bishop. Altogether, Heron-Allen characterizes it as "a useful little work, whose value is quadrupled by the translator's valuable and intelligent notes." With the interest players have shown in instruments restored to their original condition today, Otto's writings are of timely importance to builders and players alike.

It is well-known that the violin underwent many alterations in its construction after about 1780, but details about the period of transition between the Baroque instrument and the 19th-century (or modern) one are lacking. As David Boyden observes, the modern violin "had come into being by about 1800, yet it is very difficult to document exactly when and by whom the changes were accomplished." Much of the difficulty arises because nearly all old instruments were modified in order to suit the greater demands for carrying power and higher pitch. A violin by Antonio Stradivari (1644-1737), for example, would originally have had a shorter neck set straight on the instrument, a flatter, thinner bridge, and a shorter bass bar inside the instrument. Within the past twenty years, some players have had old instruments restored to their original condition, but because of the considerable value of Stradivari's instruments, few owners are willing to risk restoration.

Otto's work contains a valuable little-known account of how the changes were accomplished in the 19th century on old violins. Contrary to the widely-accepted notion that most violins had been altered by 1800, Otto relates that the changes actually came about much more slowly. Nor were the alterations necessarily considered an improvement. A violinist might request that a new, heavier bass bar be added only if the belly of the instrument had begun to sag inward, usually as a result of increased pressure as strings were tuned higher. "Really great artists," he observes, "regard this slight defect as the natural consequence of age, and in no respect detrimental to the tone, but amateurs, desirous of making improvements where none at all are required, have had their violins taken to pieces...and by the insertion of long and heavy bass bars checked the accurately calculated vibrations." In addition to reducing the string's vibration, the longer, thicker bass bar "renders the tone of the G string remarkably weak, as compared with the rest, all of which are deteriorated, though not in so great a
degree. But the chief defect occasioned by too long a bass-bar, is the want of resonance in the tone.”

Otto’s advice on the care of gut strings is of considerable interest to players today who may be unaccustomed to their susceptibility to changes in temperature and humidity. The life of a gut string (a few days for a violin E string!) may be tripled or quadrupled with proper care, and it is less likely to respond unevenly or produce squeaks. Few sources mention the care of strings, and most players today develop their own methods by experimentation. Although players may no longer wish to store extra strings in a calf’s or pig’s bladder, the remainder of Otto’s advice is eminently practical:

In order to preserve the strings a length of time in good and sonorous condition, it is necessary to keep a small piece of taffeta, moistened with almond-oil, in the bladder containing the spare strings, and, each time after playing, to rub the strings with it, from the bridge to the nut, before putting the instrument away in the case; and when again wanted for use, the oil should be wiped off with a fine linen cloth, particularly at the place where the bow is applied. The advantages resulting from this are—first, that the strings, thereby receiving nourishment, will not become dry, but always retain their smoothness of tone; and, secondly, they will not imbibe the moisture which exudes from the fingers and renders the strings dirty and false, so that they produce a grating or whistling kind of sound when the rosin is freely used; all which will be obviated by the method here proposed.

This treatment of the violin was adopted by the concert-director, Ernst, under whom I studied music; and on my recommending it to the professor and amateurs with whom I have done business, it has met with their unanimous approval. It is especially beneficial to the G-string, the gut of which dries up during the heat of summer, whatever stretching it may have received before being covered, and the wire then becomes loose. However, by the means here named, this is prevented; for the string absorbs a little of the oil, between the coils of the wire, so that it does not quite dry.

The best method of preserving the spare strings is to moisten them with almond-oil, and then wrap them up in a piece of a calf’s or pig’s bladder, and enclose them in a tin box.

Of the other volumes dealing with the violin from the Mills bequest, several are pedagogical in nature, such as those by Courvoisier (1894), Althaus (1905), Thistleton (1913), and Ritchie (n.d.). The authors, most of whom were violinists themselves, offer advice about how vibrato can be used intermittently for expressive purposes (not pervasively, as it is in modern playing), and how to adjust intonation by using unequal semitones. Authors are far from unanimous in supporting the use of a chin rest to hold the violin. Although the chin rest had been invented by Louis Spohr around 1820 and is used universally in modern playing, it apparently gained acceptance very gradually during the 19th century.

An early attempt to provide a comprehensive history of the bow is Henry Saint-George’s *The Bow, Its History, Manufacture and Use* (London, 1896), in which the author discusses the influence of folk instruments and playing techniques on its development. He includes numerous illustrations, a substantial list of bowmakers, and also relates details about 19th-century experiments with the bow such as a double-curved stick fitted with 150 red horsehairs. Among other unusual inventions were a bow that folded in two for travelling, and a “self-hairing” bow.

The volumes by Mayson (1902) and Broadhouse (n.d.) deal with aspects of violin construction, such as the choice of wood and technique of varnishing. Haweis (1905) includes chapters on violin building in differ-
Figure 2. Thomas Wesley Mills. (*Old McGill*, 1912.)
ent countries and a dictionary of violin makers that would be of use for identifying the maker of a violin from information given on a label.

With the revival of interest in performing practices of earlier centuries that has taken place recently, the volumes from Mills' library can help us to trace an unbroken tradition of violin playing through the 19th century. These and other 19th-century sources can serve to document the changes that took place in the violin's construction around 1800 and, along with early recordings, they preserve information about the little-known performing practices of the 19th century.

WESLEY MILLS AS MUSICIAN AND BENEFACCTOR

There are only a few published references to Mills' interest in music. Most biographical dictionaries omit any mention of it except in connection with his research on the voice.20 Born in Brockville, Ontario on February 22, 1847, Thomas Wesley Mills (Figures 2 and 3) obtained degrees from the University of Toronto (BA, 1871; MA, 1872) and McGill (MD, 1878 and DVS, 1890), and subsequently studied in England and Germany. He returned to Montreal to take up a position at McGill in 1882, and served as professor of physiology from 1886 until 1910. He published numerous studies based on his research and observations, especially in the areas of animal intelligence, physiology of the voice, and digestion. After the death of his first wife in 1901, he married Kate Samuels of Bendigo, Australia, an opera singer known professionally as Mme Benda. A few other records preserved at McGill provide a glimpse at his personality, as well as his musical and other cultural interests. According to a biographical sketch published in the 1912 yearbook, Old McGill, his interest in music began during his school years, and after graduating from the University of Toronto, he taught high school for one year, and then came to Montreal to continue his studies in music. It was the influence of William Osler, whom he had first met in Toronto, that persuaded him instead to resume his study of medicine at McGill. He spoke of Dr. Osler and Dr. Robert Palmer Howard (the latter a professor of medicine and dean from 1882), as two of his most influential teachers: "No man could listen to such teachers and not be in every way the better for it."21 Mills also described Osler as "my good friend" and commended him for his continuing support and guidance in a letter written in 1884 to the Montreal publisher William Drysdale.22

Mills himself was highly regarded by colleagues and students both for his research and his concern for the advancement of the arts and cultural life. In a valedictory address to the graduates in medicine in 1889, he recalled taking the "bold, perhaps rash step, and certainly unprecedented in this country, of wholly relinquishing medical practice for the teaching and culture of the department of Animal Physiology."23 His interest in music was never forgotten, however. After the music department was established in 1899 at the Royal Victoria College, Wesley Mills taught a course in the physiology and hygiene of the voice.24 He is also listed in The Musical Redbook of Montreal as a "concert goer."25 Among the concerts he would have had the opportunity to hear were two violin recitals in 1895 and 1905 by the internationally-acclaimed violinist Eugene Ysaye.26

After his retirement in 1910, Mills took up residence once again in London. Among his pursuits was the preparation of numerous topical scrapbooks that chronicled opera, theatre, concerts, and political events in London and also included notices from abroad, especially Montreal. A total of 86 bound volumes prepared by Mills between 1910 and 1915 present a fascinating account of cultural life and prominent individuals through press accounts, sometimes with annotations by Mills.27 Several scrapbooks are devoted to music, featuring concert programs and clippings from London newspapers (Morning Post and Daily Times) and from the Montreal Star. Among items of particular interest are reviews of operas performed in London (including Wagner's Ring des Nibelungen, Saint-Saëns' Déjanire, and Richard Strauss' Ariadne auf Naxos), and reviews of concerts by the internationally-acclaimed soprano Nellie Melba and the young Montreal-born soprano Pauline Donalda. Concerning a performance of Verdi's Rigoletto on July 12, 1913 in which Nellie Melba sang
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Figure 3. T.W. Mills. (Old McGill, 1912.)
the role of Gilda, Mills added comments of his own, including the observation that "Melba's voice lacked resonance." Among the other scrapbooks in Mills' collection are several devoted to history, education, and politics, in which are found numerous items about McGill. Another scrapbook is devoted to news about women and children.

Taken together, the Mills bequests reveal some of the interests of a remarkable individual, one for whom the observation in Old McGill (1912) seems especially apt: "His career and his character are unique in the history of medicine in Canada." 29

BOOKS AND SCORES FROM THE BEQUEST OF T. W. MILLS


Coward, Henry. Choral Technique and Interpretation. London: Novello, [1914].


*Holmes, Gordon. A Treatise on Vocal Physiology and Hygiene with Special Reference to the Cultivation and Preservation of the Voice. Philadelphia: Lindsay, 1880.


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1. I would like to express my gratitude to the staff of the Marvin Duchow Music Library for assistance at various stages of my research. In particular, Head Librarian Cynthia Leive, John Black, and David Curtis contributed in many valuable ways. At the McLennan Library, Michel Morin also provided assistance in tracing old records of acquisitions. A grant from the Faculty of Graduate Studies and Research allowed me to continue my research at the New York Public Library.


3. Marvin Duchow, “Canadian Music Libraries: some observations,” *Music Library Association Notes* 18:1 (December, 1960), 34. After the McGill Conservatorium was demolished in the late 1940s, the Faculty of Music occupied several buildings (as many as seven at once) until installed in 1972 in the Strathcona Music Building adjacent to Royal Victoria College.

4. I owe my initial introduction to rare items in the Marvin Duchow Music Library to a former graduate student, Edmund Brownless, who prepared a checklist of the collection in 1984 as a special project under my supervision.


8. According to a translator's note (pp. 26-27), Ernst came to Gotha in 1778. His violins were constructed after the Italian model.


14. A Stradivari violin belonging to the Smithsonian Institution (Washington, DC) has been restored and is in fine original playing condition. No others by this maker are known to have been restored.

15. According to Otto's translator, Bishop (pp. 22n-23n), pitch had risen a semitone since 1734, increasing pressure on the bridge from 63 lbs to 80 lbs, and the strings became thicker as well. Pitch rose a further half-tone after 1830, increasing the pressure to 90 lbs or more.


17. Page 32.

18. Page 43f. The G string Otto describes was overspun with metal, a technique that had been used on thicker strings since about 1675.

19. Pages 97ff.


22. Handwritten letter of T.W. Mills to William Drysdale, from the Institute for Physiological Chemistry, Strassburg-Elsaas, Germany, dated January 27, 1884. [William Drysdale Papers, MS 416, Department of Rare Books and Special Collections].

23. Wesley Mills, "Valedictory Address delivered to the Graduates in Medicine of McGill University, April 1, 1889," 2.


25. Sandwell, 144.

26. Sandwell, 196, 222. Ysaÿe performed on April 22, 1895 at Monument National Hall and March 15, 1905 at Windsor Hall.

27. The T. W. Mills scrapbooks are presently held in the Department of Rare Books and Special Collections and bear the shelf number Ms. 218, c. 1- c. 14.

28. Ms. 218, c. 1, file 5.

29. Page 16.