



Digging the **FIFTIES**

*A Curatorial Perspective on
50 Objects from the
NMM Collections*



THE SPECIAL EXHIBITION “AS GOOD AS GOLD: THE FIRST 50 YEARS (1973–2023)” is showcasing part of the history of the National Music Museum (NMM) through a small selection of treasured musical instruments, highlighting important timeline periods of its collecting process in the past 50 years.

However, the NMM collections are vast and comprehensive, and with this special occasion, the author saw the opportunity to write about some objects that are not so widely known. Therefore, in addition to the special treasures being celebrated, 50 objects from the musical instrument collection were chosen to be featured in this article. As an adequate (and “fair”) requisite, the objects were selected within the group of catalog numbers ending in **50**. The selected objects were chosen for their interesting stories, whether these relate to particulars of the instruments themselves, like unusual shapes and mechanisms, or to the people connected to their making, provenance, or

collection. This article itself is not meant to be an exhaustive essay about each instrument, but merely a brief presentation or a “curatorial perspective” on what the author thinks makes each one of these objects special in the collections of the NMM.

Catalog numbers 00050 and 15650 are respectively the first and the last current records from the musical instrument collection that fall under the selected category; and are two interesting representatives of an object from the founding collection and a new acquisition. While both instruments share a common trait in their provenance stories (both were previously collected by well-known music professors), the degree of documentation varies greatly. Revisiting objects and associated documentation (or the lack of it) recorded in the formative years of the NMM also provided for a good curatorial exercise and update of the museum database in certain instances.

The early catalog number of **NMM 00050** makes this instrument a part of the founding Arne B. Larson

(ABL) Collection assembled by Arne Baldwin Larson (1904–1988) and officially donated in 1979, which constitutes the core of the museum's holdings. No signature or markings indicate a maker for this unusual-looking violin, but records tell us that "Arne B." (how people referred to him) received this instrument from Lloyd Loar, Evanston, Illinois, in 1940. This is the same Lloyd Allayre Loar (1886–1943), who is mostly known for his important contributions to electro-

acoustic stringed and keyboard musical instruments, and work with the Gibson and Vivi-Tone companies. At that time, Loar was teaching at Northwestern University and Arne B. had studied acoustics with him. They kept in touch over the years and exchanged some correspondence. Unfortunately, there is no evidence in the archival documentation to support the theory that Loar made this instrument. However,

considering Loar's fine work output, this rather rudimentary-made violin was probably something that he acquired as a curiosity for his own personal collection.

Perhaps the rhinestones inlaid on the top of the violin captivated Loar's interest in the acoustical behavior of this instrument? Although Arne B.'s original inventory lists NMM 00050 as an "old 1500s Bavarian model violin," this folksy instrument

was most probably homemade in the U.S. by a local German immigrant in the early 1900s.

Violin, United States, ca. 1900–1940. NMM 00050.

Photo by Bill Willroth Sr.



Clarinet, G. L. Penzel & Müller, New York, NY, ca 1910–1918. NMM 15650.

Recently featured in the NMM Newsletter of Summer 2022, highlighting new acquisitions, clarinet **NMM 15650** in A by G. L. Penzel & Müller is part of the collection of Professor Thomas Ayres (1917–1990), longtime clarinet professor at the University of Iowa. Professor Ayres taught and inspired many students throughout the years, and frequently used his personal collection to teach about historical clarinets. Former student and friend of Ayres, Jerry Zinn (b. 1944), inherited the collection and donated it to the NMM in October 2021.

Companion to another clarinet in B-flat in the same collection (NMM 15649), both are the only low-pitch "Albert"-System Penzel and Mueller (PM) clarinets in excellent condition at the NMM. Established in New York as a partnership between Gustav Ludwig ("Louis") Penzel (1855–1920) and Edward Georg Müller (1869–1956) in 1899,

the company was widely known for fine woodwind craftsmanship and became a leading manufacturer in the first half of the 20th century. PM clarinets were among the best offered in the U.S. and preferred by many American early jazz- and classical-trained professional clarinetists. Made of cocus or grenadilla wood with nickel-silver keys and trimmings, this is a ca. 1910–1918 clarinet made with a simple German system, also known as "Albert" system, with 16 keys and 5 rings, including a right-hand touch on C-sharp/G-sharp key and roller, patent C-sharp key, left-hand A-flat/E-flat key, and little-finger rollers in typical PM orange-brown color.



Photo by Deborah Check Reeves



Photo by Byron Pillow

the historical epoch known as the “Golden Age of Bands” in America—the period following the Civil War through World War I. The group was composed of USD students and faculty, and both the music and the instruments featured were from the NMM’s collections. The group toured the nation and had such a great outreach impact that it made a professional record in 1973 with Mark Custom Records, a custom label based in Pipestone, Minnesota. “The Golden Age of Bands, 1850–1915” (MC-6022) was the first volume in a series of four records.

Tuba, C. G. Conn, Elkhart, IN, ca. 1904. NMM 00350.

From the ABL collection, **NMM 00350** is an average-sized, high-pitch, double-B-flat tuba made by the C. G. Conn company in Elkhart, Indiana. Made of brass that was most probably originally silver-plated, it features three front-action, bottom-sprung Périnet piston valves with mother-of-pearl touchpieces. As a result of the plating being stripped, the construction of the tuba is revealed and can be studied. The serial number 84655 approximately dates the manufacture of this tuba to ca. 1904, a period still under the dynasty of Charles Gerard Conn (1844–1931). “Tuba-like” instruments with front-action valves were first introduced in the U.S. by C. G. Conn in 1890 as the “New American Model,” and the valve design quickly became a favorite for tubists. Other than being used for research and performance/practice, this tuba was played annually in Arne B. Larson’s “Golden Age of Bands” (GAB) from 1978 to 1994. The Golden Age Band was organized by Arne B. and Ray T. DeVilbiss in 1967 when both were still professors in the Music Department of the University of South Dakota (USD). The unique ensemble performed original music on period instruments (and costumes!) from



“The Golden Age of Bands, 1850–1915” LP record cover, 1973. NMM Archives M33-068.

Picking up on NMM performance instruments and groups, the plain alto recorder **NMM 02450** is part of a set of four instruments in different sizes (including soprano, tenor, and bass) to make a recorder quartet. According to Arne B.’s inventory, he acquired these instruments in 1955 for his collection. All bear the tradename “Heidelberg” and the stamp “Made in Germany.” According to the Purchaser’s Guide to the Music Industries (PGMI), Heidelberg recorders were exclusively offered by Grossman Music Corporation, Cleveland, Ohio, from 1954 to at least 1980. In the company’s wholesale catalogs, the advertisements for Heidelberg recorders (also called “block flutes”) disappear in 1975. Established in 1922, the corporation moved to Cleveland’s downtown

Alto recorder, Germany, ca. 1950–1960. NMM 02450.

Photo by Dara Lohnes-Davies



in 1948, and was a major importer, distributor, and wholesaler of musical instruments and supplies at the time. It is quite possible that Arne B. purchased these instruments brand new soon after they came out on the market. Made in light-tan-finished pearwood, the F alto, 3-piece model featured an English fingering system, or traditional Baroque system, with two double-bored toneholes for F-sharp and G-sharp. Along with the rest of the set (and perhaps purchased with such intention), the recorders were good candidates to be used in historic performances of early music by ensembles like USD Collegium Musicum. According to museum records, this alto recorder was used in such activities between 1979 and 2000.

A more popular story can be told through bass saxophone **NMM 05750**, which was used by the Canadian vaudeville-era saxophone group, the Six Brown Brothers. Led by Thomas (Tom) Brown (1881–1950),

the various musical acts of the "Brown" Brothers were influential in introducing the saxophone into American music and transforming how it was played and perceived during the first two decades of the 20th century. According to Bruce Vermazen's research, the Brothers were the first "full" saxophone ensemble to be successfully recorded, which speaks highly of their technical skills and musicianship. Considering the many technological challenges associated with early recordings, the Brothers achieved reasonable results with Columbia in 1911 and were the only ones to do so for at least six years, which led to their popularization with the masses and contributed to what is known as the "saxophone craze" period in America (Vermazen, 2004). The

silver-plated saxophone bears an engraving with the "Buffet Crampon & Cie." logo, and "Evette & Schaeffer" with the expression of "Anc[ienne] M[aison] Buffet Crampon & Cie," address, and serial number 21315. Paul Evette and Ernest Schaeffer owned the Buffet-Crampon company between 1885 and 1926, during which time it patented many saxophone developments and innovations that became standard features on the modern saxophone. This bass saxophone made its way into the U.S. via the distributor company Carl Fischer in New York (also engraved on the instrument) and ended up in the hands of Vernon (Vern)

Brown (1887–1964), who became the bass player. This was the saxophone used in those early recordings made between 1911 and 1920. How did it come to be part of the NMM collections? Basically, through two other important, saxophone-afficionado personalities: Hewitt Allen ("Doc") Waggener (1879–1972), and Cecil Burton Leeson (1902–1989).

Doc Waggener, a physician and surgeon based in Omaha, Nebraska, during the 1910s and early 1920s, was also an amateur saxophone player and collector of musical instruments. Waggener's interest in the saxophone was such that he befriended contemporary leading professionals such as Tom Brown and Cecil B. Leeson; a pioneer saxophonist, composer, and educator, who strongly advocated for the legitimization of the saxophone as a

Photo by Tony Jones



Bass saxophone, Evette & Schaeffer/Buffet Crampon & Cie, Paris, ca. 1910–1912. NMM 05750.

concert instrument. Leeson's legacy and lifetime collection of materials such as instruments and various archives, including the Hewitt A. Waggener Collection, is preserved at the NMM. Waggener's collection had been donated in 1971 to Ball State University (BSU) in Muncie, Indiana, where Leeson was teaching. Upon Leeson's retirement in 1977, he donated his collection to BSU. Years later, the Cecil B. Leeson Collection and Archive was transferred from BSU to the NMM, in 1994. Some documentation in the Leeson archives indicates that the bass saxophone was a personal gift from Tom Brown to Dr. Waggener when the Brothers disbanded in 1933. However, the author found a few clues in the archives and Vermazen's research that may point to an alternative earlier date in which Tom gave this instrument to Waggener. In Omaha, Waggener led a local group of saxophone players that emulated the Brown Brothers, the Ak-Sar-Ben Saxaphones (sic), with whom Tom performed occasionally. Looking through the various photographs of this group preserved in the archives, dating from 1918 to 1922, discernible details identified on the bass saxophones clearly show a change of instrument in 1922. The instrument featured in 1922 has much resemblance to the NMM bass saxophone. This is around the same time that Tom received an Adolphe Sax's soprano saxophone from Waggener (a true testimony to their close friendship) and coincides with other historical details related to Tom's music store in Chicago, the purchase of new instruments for the Brothers, and a similar change of the bass saxophones in photographs of the Brothers from 1921. The author thinks it is quite possible that this bass saxophone may have been used in performances of Waggener's group, before being retired into his personal collection.

Performance groups aside, there are many other objects in the collections with a local story or connection, which enriches their value as historical objects as well. The following objects are a few tell-tale examples of such folks.

Cornet **NMM 02350** made by C. G. Conn, Ltd., was owned and played by Vermillionaire William Robert Cleland (1881–1977). Born on December 9, 1881, on a farm near Spirit Mound, Cleland was proud of his South Dakota heritage, education, and life. He attended the University Preparatory School and received a BA from USD in 1907. Soon after graduating from USD's Law School in 1912, Cleland opened his own law office in Vermillion, where he practiced until his retirement in 1975. When Cleland passed away in 1977, the NMM received this cornet from his estate along with a couple of panoramic photos of a particular event in Vermillion's history. As reported in "The Dakota Republican," the "Washington Highway Booster Meeting Drew Three Thousand People to Vermillion" on June 5, 1915: "(...) notwithstanding threatening weather conditions on Saturday morning, people from all over Clay county, and many citizens of Yankton, Turner and Union counties came to Vermillion to attend the big barbecue held on the University campus (...). The crowd assembled on [campus] some time before lunch was ready, and they were induced to pose for a panoramic picture before eating." A copy of the "crowd" picture, along with a copy of another panoramic view of the Vermillion City Band "of thirty pieces," are now part of the NMM

**Cornet, C. G. Conn, Ltd., Elkhart, IN, ca. 1918.
NMM 02350.**

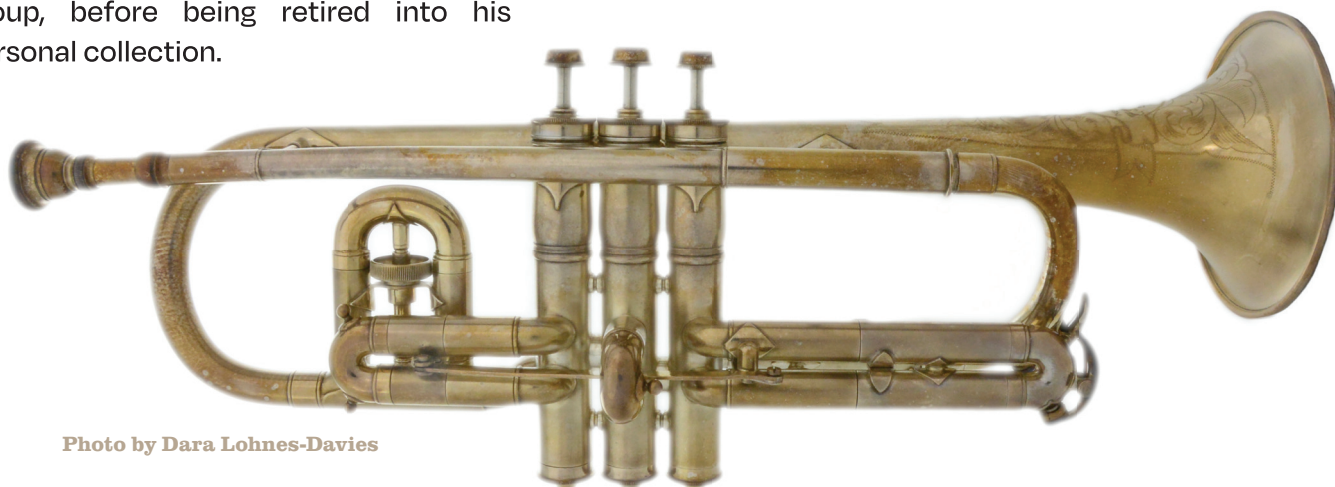


Photo by Dara Lohnes-Davies



**Vermillion City Band, 1915. NMM Archives
P-6890.001.**

archival collections. Cleland was a member of the band, and he appears in that photo holding a cornet with a similar micro-tuning device that is featured on cornet 02350 (see photo on previous page). However, the date of the event, 1915, poses an interesting question on whether the gifted cornet 02350 is the same one featured in the photo. Research on Conn New Wonder model cornets indicates that the classic cornet with the distinctive micro-tuning mechanism, also known as “opera-glass” tuning device (due to the resemblance of wheel mechanism used in opera glasses), first appears in company catalogs of 1914 as New Wonder cornet. But only in 1918 did the company receive its patent for this device and the cornet was renamed Victor New Wonder cornet. The serial number 156876, the stamp “PATENTED” in the



second-valve casing, and the “Victor New Wonder” engraving on cornet 02350 place the date of manufacturing in ca. 1918, so it is unlikely that the instrument featured on the photo is the exact same instrument. Cornet 02350 does bear an additional star stamp above the serial number, which indicates a custom order. One could make two speculations: either Cleland had an earlier version of a New Wonder cornet in 1915, by then already offered

with the micro-tuning mechanism, which could have been upgraded or custom-modified at a later date; or he purchased a newer instrument around 1918,

William Robert Cleland, 1915. NMM Archives.

as a replacement of his 1915 one. In any case, both the instrument and photos bear testimony to local history and to one of the earliest examples of C. G. Conn’s most popular cornet line.

Tenor saxophone **NMM 06050** also made by C. G. Conn, Ltd. was owned and played by Yanktonite Arthur (“Art”) Elvin Bjornsen (1907–1997). Bjornsen lived most of his adult life in Yankton working as a warehouseman, but his probable “sidekick” musical career was a prolific one. Bjornsen played saxophone, clarinet, and banjo, and was one of those musicians that probably performed in the so-called “territory bands” that would travel from town to town in the early days of South Dakota jazz history.

Bjornsen was a member of Don Fejfar’s Orchestra, directed by Willard James Fejfar (1917–1994), who was one of the popular band leaders from the Great Plains that originated in Vermillion. Bjornsen also played with the renowned Lawrence Welk’s Band, when Welk was headquartered in Yankton in the 1930s and performing live on WNAX, Yankton’s famous radio station. At WNAX, Bjornsen also had his own radio music show called “The Banjo Twins.” Other local Yankton references in which Bjornsen played were the

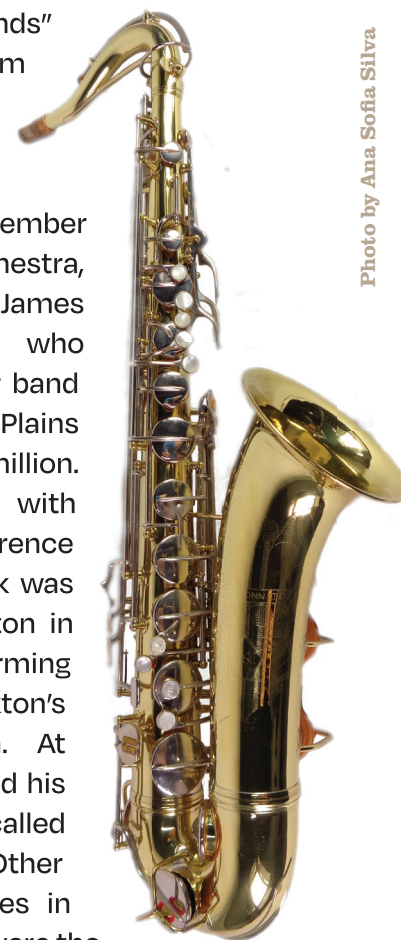


Photo by Ana Sofia Silva

**Tenor saxophone, C. G Conn, Ltd., Elkhart, IN, ca.
1947. NMM 06050.**

Loyal Order of Moose Lodge No. 1356 Band, the Stan Fritts Band, and the “dixie” group Bourbon Street Five. The NMM collections hold some archival photos of these groups in which Bjornsen appears with the tenor saxophone O6050. The instrument is in very good preservation condition, considering that it was completely overhauled in 1991 before it was gifted to the NMM through the Bjornsen estate in 1997. It is a re-lacquered brass, 10M model saxophone with an art-deco-style engraving, including the iconic “naked lady” in a pentagon, with nickel-plated keywork and mother-of-pearl touchpieces. The serial number 324912 places the manufacturing date ca. 1947, which makes this instrument an example of a post-war-made 10M, a staple tenor saxophone model that Conn had been offering for more than 25 years thus far, and a favored one among players.

Photo by Ana Sofia Silva



Bass drum, Ludwig Drum Company, Chicago, IL, 1961. NMM 06150.

The bass drum **NMM 06150** is part of a drum set that came to the NMM in 1998 along with related materials of another South Dakota band leader, Thomas (Tom) Ptak (1895–1997) of Wagner. Born in Tabor, Ptak grew up hearing Bohemian tunes played

by polka bands traveling throughout southeastern South Dakota. A farmer who was passionate about music, he taught himself to play button accordion, tuba, bells, and drums, the latter being his instrument of choice. His musical career began in the mid-1920s with fellow Wagner musicians as The Royal Serenaders, a dance band that played for several years and won a competition in the WNAX radio in 1927 (the first prize trophy is included in NMM's Tom Ptak Archive). But Ptak is probably best known in the area for his own band, the Tom Ptak Orchestra, which played all over South Dakota and down into Nebraska for more than twenty years. Although Ptak retired from his orchestra in the mid-1960s, by which time he was also in his 60s, Ptak never really slowed down in playing his favorite Czech songs whenever there was a chance. The instruments that make up the Ptak drumset donated to the NMM are not all from one single original drumset. As one would probably expect from a traveling musician such as Ptak, his “instrument” was a composite one, made with instruments and accessories that he felt fit for his performances. And it is not so uncommon for drummers or percussionists to customize their own instrument sets with different parts. The bass drum O6150 is an example of a very popular drum made by the Ludwig Drum Company throughout the 1960s and 1970s. By then, the Chicago-based company, first established in 1909 by brothers William F. Ludwig (1879–1973) and Theobald R. Ludwig (1888–1918), had been in business for more than fifty years and had a nationwide respected reputation. The drum has a Sparkling Green Pearl finish, now quite faded, and was customized with a red lightbulb on the inside, most probably installed by Ptak himself.

Now the NMM does have some all-original drumsets like the one that belonged to Betty Ruth (Ross) Moran (1922–2000), an enthusiastic amateur musician from Decatur, Indiana, who performed in small local groups throughout the 1940s until the late 1960s. The drumset **NMM 12950** is a New “Trianon” Outfit that was offered by the Leedy Manufacturing Company in the 1940s,

during the C. G. Conn ownership era (1929–1955). The complete outfit was essentially composed of a snare drum, a bass drum, a tom drum, and many accessories of choice for the price of \$96.50 in 1941, making it one of the least expensive sets offered then. The Moran outfit at the NMM is composed of a 14-in snare drum, Reliance model with a Presto strainer, which was one of the models manufactured by Leedy in Indianapolis and continued by Conn. A 28-in bass drum, Spartan model of single-tension with center posts, equipped with a “Leedy Arch Trap Rail” for the following traps, also included in the set: a Leedy woodblock, two unmarked cowbells, one 12-in, thin cymbal by Zenjian, and one 10-in, thin cymbal by Avedis Zildjian (cymbals were the only product that Leedy did not manufacture). All traps were assembled in the outfit with original Leedy holders. The bass drum setup included an “X-L” bass drum pedal made by Leedy as well, and a tunable 11-in tom drum of single-tension with “self-aligning” rods in “Beaver Tail” lugs, which could be assembled on the same arch trap rail. The drumset also includes a hi-hat cymbal setup with two small, 10-in, high-dome-shaped cymbals, and a “high-sock” pedal made by Ludwig, which was also under the same C. G. Conn ownership. Although it was not part of the “Trianon” outfit as advertised by Leedy, this hi-hat was probably sold along with the original set by the local music shop and dealer, Tom Berry Music Co. in Fort Wayne, Indiana. The Betty Ross Moran Archives at the NMM include the original cardboard box from the sale of this set and the warranty books. The Leedy and Ludwig drum pedals are almost indistinguishable except for the name placed on the foot pedal. According to provenance documentation, Moran acquired the set while she was a student at the Decatur High School (Class of 1940). After school, she remained musically active by performing in



Photo by Bill Willroth, Sr.

Drumset, New “Trianon” Outfit, Leedy Manufacturing Company, Elkhart, IN, ca. 1940. NMM 12950

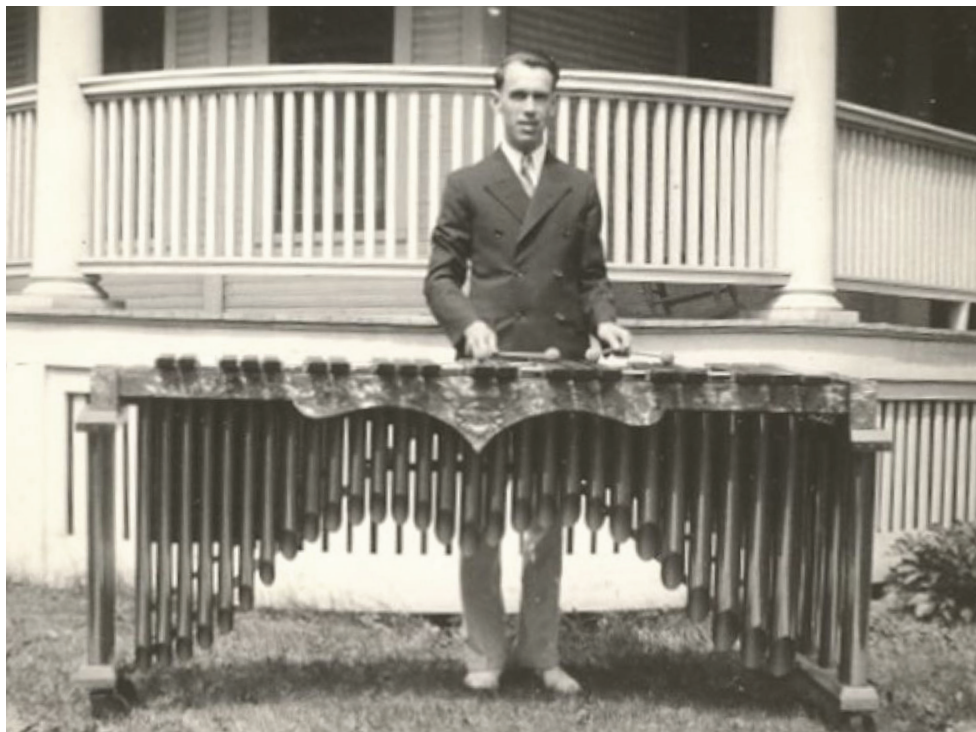
smaller musical groups that performed as Friday and Saturday night entertainment at the Decatur Moose and Elks Lodges, and private parties.

Also included in the group of percussion instruments, there is one other recent acquisition that has a noteworthy story to be told: the King George marimba, **NMM 15550**. In July 2020, the NMM acquired one exemplar of a King George style marimba designed by Clair Omar Musser (1901–1998). Musser was a marimba virtuoso, composer, conductor, music professor, educator, inventor, instrument designer, engineer, and businessman; a true marimba impresario largely responsible for introducing, developing, and promoting the instrument. In 1930, Musser joined the notable J. C. Deagan company in Chicago, as manager of the mallet percussion instrument division, and shortly after, he designed the King George marimba. This model was specifically built for Musser’s International Marimba Symphony Orchestra (IMSO), just before the orchestra went on a European tour in 1935, arranged by Musser, which included traveling to London for two scheduled performances at the Royal Albert Hall for the occasion of the 25th Silver Jubilee of the

coronation of King George V. Unfortunately, due to a British versus American musicians' union dispute in an unrelated incident earlier that year in New York, both performances were canceled, but only upon the ship's arrival in Southampton, England—a clear maneuver of political retaliation. The first leg of the IMSO Atlantic journey, which lasted for seven days, ended in Le Havre, France, instead, and the tour continued as described by percussion professor Dr. David P. Eyler (Eyler, 1985). Only 102 King George marimbas were built: 100 for the members of the IMSO, one for Musser's personal use, and one spare. After the production of these instruments, Musser had all the materials for constructing King George marimbas destroyed, so that the design could never be duplicated. Musser insisted that these limited-edition instruments, each one tailored for each performer, be the exclusive property of the members of the IMSO. Following the European tour, the marimbas were repaired and restored at the Deagan factory and then returned to their owners. But this ownership was not just given out of generosity. After a rigorous auditioning process supervised by Musser himself, each orchestra member was obliged

to purchase his own instrument at a cost of \$500, which included the instrument traveling trunks, and major expenses of the tour trip. In a way, it was an investment from all parts involved: Musser would gather a large orchestra of serious and committed musicians, the musicians would acquire high-quality, customized instruments for their professional careers, and Deagan would get business done. The NMM King George marimba was built specifically for Harvey Skewis Moen (1909–2001), a distinguished music professor and bandmaster in South Dakota, whose name is engraved on the brass shield plaque centered on the front of the marimba frame. The instrument is labeled "Cat. No. IMSO, Model FH92," meaning that it is number 92 of the IMSO set, has a four-octave, F-to-F range (F to f4), and was built at a high-frame height (H). Part of the customization of these instruments included the offer of "high" or "low" frames to better suit the height of the performers. As typical of marimba instruments, the tone bars are made of wood (rosewood probably), and the resonators are made of round brass tubes in this case. The frame structure was designed with special brass-hinged components that allowed foldability, a

much desirable requirement for these large traveling instruments. The legs of the frame structure are also built with round brass tubes, mimicking the resonators, and the frame ends and rails are decorated with a synthetic black diamond pearl finish. Like so many other IMSO members, Moen kept and used his King George marimba throughout his career, including teaching and performing as faculty at the Northern State University in Aberdeen, South Dakota. The NMM is fortunate to now have this unique piece of percussion history with a strong local connection.



Harvey Moen with his "King George" Marimba.
Image courtesy of the Moen family.

The Musser story inspired the author to seek similar examples in the pre-selected group of instruments

for this article that tell stories about like-minded individuals, who contributed to the development of musical instruments. Throughout the history of musical instruments, one clearly recognizes that while some contributed in ways that revolutionized certain musical instruments entirely, others were focused on improving certain aspects of a particular instrument.

Internationally renowned clarinet performer and teacher Rosario Mazzeo (1911–1997) was also an inventor and a collector. His passion for the clarinet led him to develop his own clarinet system, the Mazzeo System, and to amass a collection of more than 70 clarinets, primarily meant to illustrate the gradual development of clarinet mechanisms.

Correspondence between Mazzeo and NMM's founding director André Pierre Larson (1942–2017), going back as far as the 1980s, documents that both had the same opinion about the value and interest of this collection in its entirety, particularly because many of the instruments featured "modern" and unusual key mechanisms. In 1995, Mazzeo decided to officially donate the collection to the NMM but kept most of it with him in Carmel, California, for teaching and research. Although Mazzeo retired in 1976 and discontinued playing the clarinet, he remained an active teacher and writer. In his own words, he was "aiming at one hundred and twenty as an age at which (...) [he] would have probably not completed all of [his] currently planned activities." Sometime along the way, Mazzeo acquired clarinet **NMM 05850** for his collection. This clarinet is a 17-key, B-flat Boehm system with full plateau or covered keys (7 keys,

including the left thumbhole), instead of rings. All clarinet parts bear a signature stamp for "A. Grass/Paris." Achille Grass (1879–1952) was a clarinet tester for the French company Dolnet (Dolnet, Lefèvre et Pigis) in Paris, sometime during Henri Dolnet's period between 1925 and 1950. Although Henri died in 1944, there are some company brochures from 1950 (Dolnet, Paris, under the direction of André Jumelin, with distribution in the US) that still mention Grass as a clarinet tester. One "Grass A." is listed as a maker of reeds and mouthpieces, and wholesaler of wind instruments in Paris directories. Grass was a first prize winner of the Paris Conservatory, and a very active clarinetist during that time (with the likely exception during the war years): he was a member of the Société Taffanel, clarinet soloist in the revived Concerts Padeloup and the orchestra of the Radiodiffusion Française, and did the 1918–1919 American tour with the orchestra of the Société des Concerts du Conservatoire. Although most of the current research about the Dolnet company is related to their saxophone manufacture, company advertisements dating from circa 1930 confirm that Dolnet was offering Boehm system clarinets with plateau keys. The inclusion of a special B-flat tone-hole and mechanism at the register key confirms that this was a professional grade and perhaps customized clarinet. Part of Mazzeo's customizations (like so many others in clarinet history) were focused on achieving a better upper register performance and a better sound for throat B-flat. Although Mazzeo worked on many clarinets he owned, the mechanisms on clarinet 05850 appear original from manufacture. It is more likely that Mazzeo acquired this instrument as is and used it for inspiration to develop his own system.

The first Mazzeo System clarinets were manufactured in 1959 by the company Henri Selmer of Paris, which later received an exclusive license from Mazzeo to manufacture them. Over several years, more than 13,000 professional and student-line instruments were produced in both Paris and Elkhart factories. **NMM 13650** is one of those student-line models, marketed as "Bundy." The trademark name is associated with George Mosher Bundy (1886–

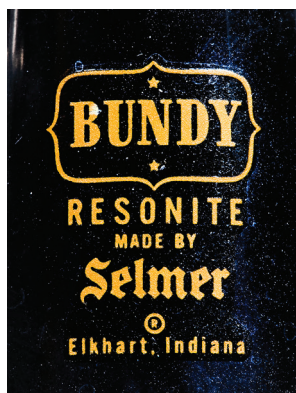


Photo by Ana Sofia Silva

Clarinet, Henri Dolnet, Paris, France, ca. 1925–1940, NMM 05850.

1951), who set up the American Selmer company (H. & A. Selmer Inc.) in Elkhart, Indiana. Although the Bundy line of instruments was introduced in the 1930s, the production of plastic clarinets only began “officially” in 1948. A promotional flyer from this year introduces the new “Bundy Resonite, No. 1400” (though it is listed earlier, in a 1947 catalog), and H. & A. Selmer, Inc. registered the “Resonite” trademark in 1954 (SN 666,137), claiming use since 1948. A stock ledger from the Conn-Selmer archives at the NMM, confirms that “#1400 Bundy Resonite clarinets” were being made in 1948 at the 50000 serial number series. Although the plastic formula may have changed throughout the years, a 1959 specs sheet from Selmer indicates that the “No. 1400 Bundy Resonite” B-flat soprano clarinet was made of molded phenolic thermosetting plastic with nylon filler. The “Bundy Resonite Mazzeo Model, No. 1400M,” which is the model seen here, was basically the same as the Bundy Resonite 1400 with the addition of the following Mazzeo features: the new throat B-flat mechanism with its own drilled tonehole, a plateau key for the left-hand thumb, and a ringless bell with a less pronounced flare. This clarinet came to the NMM in 2008 as a donation from Conn-Selmer, Inc., when their subsidiary Frank Holton & Company closed the factory in Elkhorn, Wisconsin.

Photos by Bill Willroth, Sr.



Clarinet, H. & A. Selmer, Inc., Elkhart, IN, ca. 1962–1971. NMM 13650. Detail of Bundy Resonite decal and upper joint at right.

Bass-baritone bugle, Frank Holton & Company, Elkhorn, WI, ca. 1959. NMM 13950.

The NMM was the recipient of the Holton company’s historic records, archives, and 369 instruments. The founder of the company, Frank Ezra Holton (1857–1942), was a virtuoso trombone player who began his manufacturing career in 1898, in a small shop in downtown Chicago. After experimenting with trombone manufacturing first, production of other brass instruments followed. By 1920, Holton was running an established and successful international business from the large Elkhorn factory.

The Holton Archive now preserved at the NMM is particularly strong in documentation of the early history of the company. The instrument collection includes brass and woodwind instruments of historic interest from Holton’s personal collection, as well as experimental models, prototypes, reference, and production instruments. **NMM 13950** is one such instrument from the Holton Factory Reference Collection. The company manufactured bugles from circa 1910 until 1964, but this model is not your typical bugle. This is a bass-baritone “G-D” bugle designed for the modern Bugle Corps service era in the 1950s, with a combination of piston and rotary valves. The horizontal piston valve design, incorporated into a loop of tubing, allowed to lower the instrument’s pitch from “G” to “D”; a natural evolution from the need that “two-pitch music” began to be used regularly by the corps. The rotary valve, in this design, was incorporated in the main tuning slide of the instrument, and allowed to lower the instrument’s pitch a semitone to F-sharp (if using both the piston and rotary valve at the same time, the pitch would be lowered to C-sharp). This “F-sharp” rotary valve was considered more advantageous because it

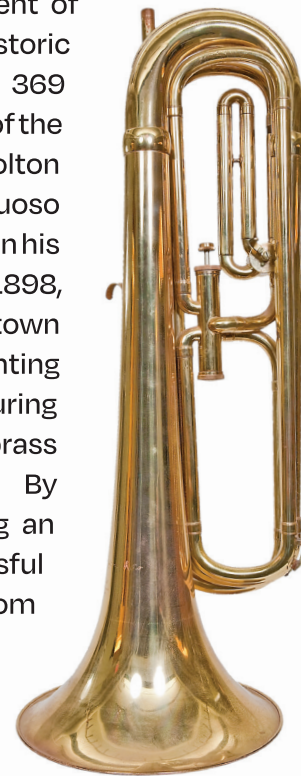


Photo by Bill Willroth, Sr.

increased the chromatic range of these bugles. While it was integral in the design of bass-baritone bugles, Holton offered the rotary valve as a separate attachment that could be assembled in other bugle sizes. When the Holton company became part of the Leblanc company in 1964, the production of bugles was phased out.

But the NMM is home to many other bugles that may look more familiar, like **NMM 01150** from the ABL collection. The signature stamp on this small U.S. duty bugle holds important elements: the manufacturer ("Millard"), the specification number ("Spec.1152"), and date of production ("7.12.17"). The presence of this signature also indicates that the bugle was manufactured for use during World War I, which is why it is also referred to as a "trench" bugle. The M1894 "trumpet" (bugle) in B-flat was a natural trumpet (no valves) designed in three small loops of brass tubing, with no tuning slides. The U.S. Army Quartermaster Specification No. 1152, dated April 25th, 1912, included the two "brass rings" on the inside of the loops for a leather "sling strap," and the mouthpiece would have had an "attaching link" and a "leather strap" too, but the attaching link and mouthpiece seen on this NMM example are not original. Millard stands for the company F. Millard & Co., which, at this time, was managed by both father Frank (1860–1943) and son Frederick Millard (1887–

1955). Both are listed as brass instrument manufacturers in directories from 1910 in Detroit, Michigan. By 1918, the company was listed in Plymouth, Michigan. This company was one of many in the U.S. who supplied the military with abundant field instruments.

Photo by Bill Willroth, Sr.



Bugle, F. Millard Co., Detroit, MI, 1917. NMM 01150.

Tenor slide trombone, F. A. Reynolds Co., Fullerton, CA, 1968. NMM 05250.

The brass R-shaped counterweight on the bell section of the next instrument, which is a slide trombone, leaves little doubt that **NMM 05250** is a "Reynolds" trombone. Foster Allen Reynolds (1883–1960) was another key figure in the history of American band instrument manufacturing. In the 1900s, after completing his apprenticeship at J. W. York and Sons, in Grand Rapids, Michigan, Reynolds went to work for the H. N. White company in Cleveland, Ohio, where he would spend the next 30 years. While an instrumental figure in transforming H. N. White's company into a leading manufacturer, Reynolds wanted to forge a path to his own legacy. In 1935, he established the F. A. Reynolds Co. in Cleveland, Ohio, with partners from Scherl & Roth (New York). After 10 years of building his successful company, Reynolds "retired" and turned F. A. Reynolds Co.

to his partners in 1946. In truth, Reynolds went on to consult and work for F. E. Olds & Son, in Fullerton, California, where he pioneered large-scale techniques for manufacturing brasswind instruments. As the years went by and different companies merged and consolidated businesses even further (a trend driven by economies of scale and increasing automation), the F. A. Reynolds Co. ended up being sold to Chicago Musical Instrument Company (CMI) in 1964, which already owned F. E. Olds & Son, and moved production to a new factory located in Abilene, Texas. While Reynolds did not live long enough to see the products that resulted from



Photo by Ana Sofia Silva

the merging of Olds and Reynolds production lines, his legacy is present in the instruments themselves. The NMM trombone is one exemplar from that era made in 1968, in the Olds factory in Fullerton. It is a Contemporas TO-11 model, serial number 236447, with a bronze alloy bell with a distinct nickel-silver rim (“tone ring”), and a chrome-plated nickel-silver slide.

Photo by Emanuele Marconi



Miniature harmonica, Wheatstone & Co., England, ca. 1946–1949. NMM 15050.

In the study of musical instruments, when one thinks of the name Wheatstone, one automatically thinks about scientist Sir Charles Wheatstone (1802–1875), who invented the symphonium (1829) and developed the English concertina. However, the history of the company bearing Wheatstone’s name can be traced far back to 1750 with other members of the family. Eventually, Charles and his brother William Dolman (1804–1862) picked up and maintained the musical instrument business through most of the 1800s. Most probably because of its prestige, the name “Wheatstone & Co.” was retained when other companies acquired the business. In the 1930s, the enterprise had been declining and was forced to suspend concertina manufacture because of the war. In 1943, part of the business was purchased by major company Besson & Co., which in turn became a Boosey & Hawkes subsidiary in 1948. Limited production of Wheatstone concertinas was maintained until 1975 when Steve Dickinson purchased the name, machinery, and stock. Today, Dickinson continues to manufacture and repair concertinas under the Wheatstone trademark. During the Besson/B&H era, the company manufactured other Wheatstone-

branded instruments, just like this miniature harmonica, **NMM 15050**. The Wheatstone “Buddy” model, 8-note mouth organs, were small diatonic harmonicas with 2 reed plates holding 4 reeds each. Among only a few other models, these were one of the first instruments allowed to be made by Wheatstone as the restrictions on non-war-related manufacturing began to ease in England after the end of World War II. This example was a gift of avid concertina collector and historian Neil Wayne (b. 1946), who presented it to the NMM in 2016, during the traditional 10-year-returning annual meeting of the American Musical Instrument Society in Vermillion.

At the NMM, one cannot talk about harmonicas without thinking of another enthusiastic collector, Alan Graham Bates (b. 1928), who donated the most comprehensive harmonica collection ever assembled in this country. Because harmonicas are small, they are easy to collect, and Bates endeavored to acquire at least one representative example of every known type and subvariant to document the cultural history of the instrument. The Alan G. Bates Harmonica Collection and Archives at the NMM includes more than 2,500 instruments and supporting research materials. So, in this collection, there are at least 25 objects with catalog numbers ending in 50, all of which could be featured in this article. However, the author chose five of the most interesting ones in this group.



Photos by Ana Sofia Silva

Harmonica, Andreas Koch, Trossingen, Germany, ca. 1910–1928. NMM 08950.

The oldest representative in this group is a typical diatonic harmonica, also known as *vamper* or *Richter* type, in which a comb is “sandwiched”

between two reed plates, each reed plate carrying single-blow or -draw reeds. **NMM 08950** was made by Andreas Koch (1844–1915), whose enterprise was the second-largest harmonica producer in the world, after Hohner company. The Koch company, also located in Trossingen, Germany, started in 1867. While sales in Europe were big, the company founded a branch in New York in 1903, and the business flourished in the 1910s and 1920s. Then, in the years preceding the economic crisis of the 1930s, the company suffered from internal management conflicts among the family members, and the business declined to the point that they made the decision to sell. The giant Hohner took possession of the Koch enterprise in 1929. "The Atlas" model (No. 251) is seen in Koch catalogs from at least 1910 until 1927, in the sections for "artists and professional players." This one has a standard rectangular shape, a wooden comb with ten holes, brass reed plates with 20 reeds (10 per plate, one draw, one blow), nickel-plated steel covers, and extra corrugated brass sheets attached to the reed plates forming sound channels for each reed, which would provide for a "strong tone." These corrugated plates resemble organ pipes, so this is also known as an organ-pipe style harmonica.

Photo by Ana Sofia Silva



Harmonica, Gustav A. Doerfel, Klingenthal, Germany, ca. 1925–1930. NMM 09150.

The second example in the group, **NMM 09150**, is an example of a sliding cover harmonica, in which the cover plates are not attached to the harmonica body and can rather slide over the reed plates through a flange-channel system construction. This way, the reeds may be easily exposed. The cover plates in this example also have two crescent-moon-shaped slots for a nail to slide the plates. The top cover plate features an embossed "Richard Wagner" inscription

with fancy script capitals, which was a registered trademark by the company G. A. Dörfel (G. A. Doerfel), located in Brunndöbra, Saxony (today Klingenthal, Germany), founded in 1848 by Gustav Adolf Doerfel (d. 1922). It has a rectangular wooden comb with rounded sides, double-chamber construction with ten holes, and brass reed plates with a total of 20 reeds. The sides of the harmonica have strips of metal attached with two large brass tacks that may indicate this instrument was probably part of a multi-sided, paddlewheel-type harmonica.

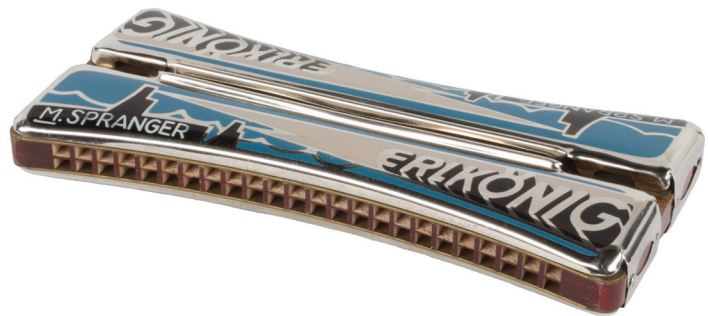


Photo by Ana Sofia Silva

Harmonica, Max Spranger, Klingenthal, Germany, ca. 1935–1940. NMM 10250.

The next example, **NMM 10250**, was also made by another maker from Klingenthal, Max Spranger, who founded his company relatively late in 1903. This is an "Erlkönig" model of unusual shape and beautiful enameled covers that were fashionable in the 1930s. The blue, black, and silver colors with a design of what appears to be some kind of mountain peaks, clouds, and perhaps a form of spectral mist probably alluding to the Germanic folklore of the "Elven" or "Alder" King. It is a double-sided harmonica, meaning two harmonicas in one instrument, both with curved or concave front edges. Each harmonica has a wooden comb with 24 holes in a double-chamber construction (48 holes total), and brass reed plates with 96 reeds total. Similar to the tremolo harmonica in design, this is actually an octave-tuned harmonica, in which the reeds for each hole are tuned one octave apart instead of being slightly off-tuned from a reference pitch. This makes the resulting sound stronger and full-bodied, without the "tremolo" effect.

The next harmonica, **NMM 08050**, also has enameled cover plates, with a simpler art-deco-type design in black and off-white colors, and the model name "Bandmaster Chromatic." The Bandmaster was a popular trademark used for several harmonica series made by the company C. A. Seydel (later C. A. Seydel Söhne, in short, "C.A.S.S."), founded in 1847 by Christian August Seydel (d. 1882) in the region of Untersachsenberg-Georgenthal (a district of Klingenthal as well). Originally a family of miners, the Seydels established their factory at the foot of the famous Aschberg mountain, and the company withstood the test of time thus becoming the oldest harmonica factory in the world still producing today (Hohner was only founded ten years later). This example is an unusual chromatic in that the slide mechanism is built within and hinged at the back of the wooden comb. The comb has 10 holes, double-chamber construction, and a total of 40 brass reeds with "wind-saver" leather valves.

Photo by Ana Sofia Silva



Harmonica, Gustav A. Doerfel, Klingenthal, Germany, ca. 1925–1930. NMM 09150.

And finally, one other example from the well-known Hohner company, founded by Matthias Hohner (1833–1902) in Trossingen, Germany, in 1857. **NMM 08450** is a triple-chord harmonica, meaning that it is composed of three individual chord harmonicas assembled together. A chord harmonica is a sub-type of the chromatic-orchestral accompaniment harmonicas, in which the reeds are clustered in groups to be played together to sound a chord. The model Polyphonia No. 8 (Orchester VIII in the German market) was introduced in catalogs from the 1950s, and it was a fairly large instrument boasting 144 brass reeds total, distributed in groups of three-

chord notes, plus a fundamental bass note. Each harmonica has 12 single holes for the bass notes, and 12 wide holes with partitioned chambers for the chords. The hinged assembly allows to adjust the angle of each harmonica to better suit the player. This model disappeared from Hohner catalogs in the 1970s.



Photo by Ana Sofia Silva

Triple-chord harmonica, Matthias Hohner, Inc., Trossingen, Germany, ca. 1950. NMM 08450.

Now, many of the harmonicas at the NMM are amongst the smallest of instruments found in the collections. Particularly, if one thinks of the miniature ones. However, there are other tiny instruments in the Margaret Martin Whistle Collection. In 1998, Margaret Hammerbacher Martin (1908–2004) donated her collection of more than five hundred whistles to the NMM. A collection she started with the purchase of four "primitives" at a small shop in Oregon, and grew from travels and gifts from around the world. Her collection includes various types of whistles and other instruments like pitch pipes, panpipes, clay vessel flutes, and ocarinas. Two of these are briefly presented next.

The first example is a beautiful "escargot" or "snail" shape type whistle, which is probably the most recognizable shape of compact whistle. **NMM 06250** is made in brass decorated in a cloisonné style, a technique that uses colored glass paste, or enamel, painted within contained partitions (French *cloisons*) of metal wire. In this case, designs of flowers and leaves in red, blue, pink, and green colors over a white

background adorn the body, sides, and mouthpiece parts of the whistle. Part whistle, part pendant, it is also attached to a blue, braided necklace cord. Margaret received this as a Christmas gift in 1983.

Photo by Ana Sofia Silva



Whistle, before 1983. NMM 06250.

The second example, **NMM 06650**, is a globular resonating duct whistle, or vessel flute, made of clay in a zoomorphic shape of an owl. The embouchure hole is located at the bottom of the figure (owl's tail), and the air duct travels the back of the owl towards the voicing edge hole. The owl is decorated in a traditional Peruvian folk-art paint with floral designs and simple feather features. Margaret purchased this one in Cuzco, Peru, in 1985.

Photos by Ana Sofia Silva



Whistle, Cuzco, Peru, before 1985. NMM 06650.

Departing from Martin's Peruvian whistle, let us explore a few more examples from the NMM's global collection of non-Western instruments. At the NMM, the collecting approach in the subset of folk, indigenous, and global musical instruments, has been mostly representative, meaning that the goal was to have evocative examples of cultural or regional variations. As such, most instruments may lack specific attribution and provenance, but there are some pockets of concentration and one-off examples of high-quality instruments as well.

The first two examples were both collected by Arne B., but unfortunately, there is little documented provenance information about them. They are both part of the founding ABL collection. The Native American flute, **NMM 04050**, is also known as a "courting" or "love" flute because that was one of its traditional uses: a man would make his own instrument and play it to court a woman. While traditionally only men played these flutes, today, the instrument is used by anyone in many musical practices and functions across a broad range of styles and tribes. The manufacture of these flutes was also refined by contemporary makers, but in essence, these are end-blown duct flutes with external blocks. The NMM example seems to be an earlier one, dating from the late 19th century or early 20th century, attributed to the Northern Great Plains. It is made in two half-pieces of wood that were hollowed out and assembled together with resin and metal wire. The block, which is secured with rawhide, was carved in a simple shape with a chimney that borders three sides of the sound hole. The flute has six fingerholes and it ends in a stylized bird head with two brass tacks for eyes, probably symbolizing a sandhill crane, which is known for its courting skills. A curious element in this flute is its mouthpiece, which is made from an empty brass bullet casing bearing the headstamp "W.R.A. CO. / 25-20 W.C.F.", which stands for a Winchester Center Fire rifle cartridge made by the Winchester Repeating Arms Company.

Photo by Dara Lohnes-Davies



Courting flute, Northern Great Plains, North America, ca. 1885–1915. NMM 04050.

The Japanese shakuhachi, **NMM 01250**, is also an end-blown flute, but it has no duct. The player blows air directly into a sharp edge at the top end, which has a diagonal notch inlaid with a piece of hard dense material called *utaguchi* (Japanese for “song mouth”). Because the flute is made of bamboo and susceptible to structural variations in humidity that can lead to damage, the *utaguchi* is an essential element to keep the blowing edge sharp. The shape of the *utaguchi* also defines a particular school of traditional Japanese shakuhachi playing. The NMM example has a curved shaped *utaguchi*, most probably made of water buffalo horn, which is typical

of the Tozan Ryu school. This school was founded by Nakao Tozan (1876–1956) in the late 1890s, which was already during the historical period that Japan was open to the world and influenced by Western power and culture (Meiji era). It was during this era that the shakuhachi became very popular as an instrument to be played in an ensemble, along with other Japanese stringed instruments. As such, the shakuhachi began to be made according to specific tuning standards influenced by Western music, which allowed it to play “in tune” with other instruments. Nakao Tozan was also influential in the movement that introduced the shakuhachi to the U.S.

Photo by Bill Wilroth, Sr.



Shakuhachi, Minzan, Japan, ca. 1930–1940. NMM 01250.

in the aftermath of the great 1923 earthquake in Japan. Aside from the *utaguchi*, the NMM instrument features other characteristics that developed from that adaptation to Western influence, such as: body joints (makers had limited pieces of the fine *madaké* bamboo that they could use to make instruments “in tune” and in conformity with the traditional aesthetic of shakuhachi making, which accounts for the position of the toneholes and bamboo nodes); and lacquered bore (makers started to work/shape the interior bore of the natural bamboo, which allowed making instruments with better tuning, stronger tones, and enhanced response more suitable to ensemble performance). The NMM shakuhachi also bears a *Yaki-in* by the thumbhole, which is the maker’s signature made with a branding stamp. In this case, the Japanese characters 眠山 (read vertically) are pronounced as “Min-zan,” which translates to “Sleeping Mountain.”

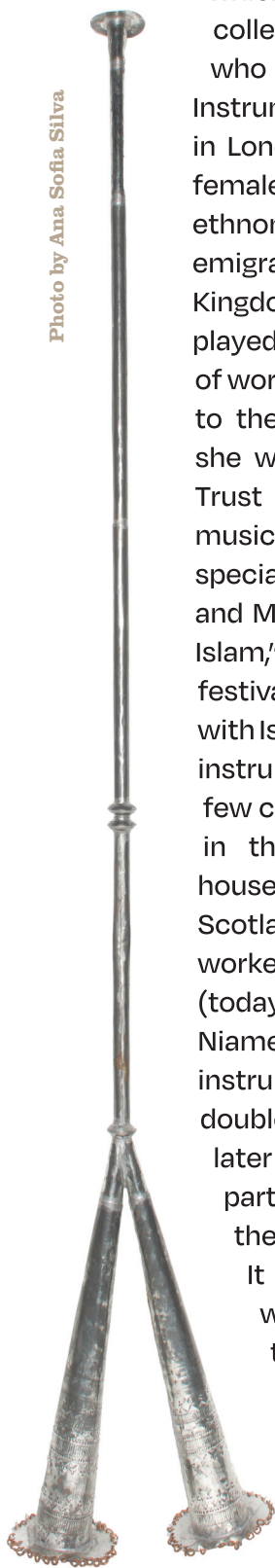


Details of *utaguchi* (left) and *Yaki-in* (right) from NMM 01250.

Photos by Bill Wilroth, Sr.

One of the most common names for a type of long natural trumpets found in West Africa is *kakaki*. These are used in traditional ceremonial music of the Hausa, one of the largest ethnic groups in West and Central Africa, with a particular concentration in northern Nigeria and southern Niger. While its origins may be older, documented history from the 16th century indicates that the *kakaki* was formerly used in military music as a signaling instrument.

Today, it is mostly associated with Islamic functions in ceremonial occasions. **NMM 02750** is a Nigerien kakaki that also has a double-bell feature, which amplifies its sound. It was collected by Jean Jenkins (1922–1990), who was the first Keeper of Musical Instruments at the Horniman Museum in London. As one of Horniman's first female curators, American-born ethnomusicologist Jenkins emigrated to the United Kingdom (UK) in 1949 and played a key role in the UK's knowledge of world music. In the early 1970s, leading to the World of Islam Festival in 1976, she was commissioned by the Festival Trust to acquire a large collection of musical instruments to be featured in a special exhibit at the Horniman, "Music and Musical Instruments in the World of Islam," which she curated as part of the festival event. Because of its association with Islam, NMM 02750 was among those instruments collected and exhibited. A few correspondence files and fieldnotes in the Jean Jenkins Collection, now housed at the National Museum of Scotland in Edinburgh, establish that she worked with the Musée National du Niger (today Musée National Boubou Hama, in Niamey) to acquire a group of Nigerien instruments for this purpose, in which the double-bell kakaki is listed. A few years later after the festival, the Trust placed part of the collection for auction, and the NMM acquired the kakaki in 1980. It is made in three main sections of white-colored metal, most probably tinplate (*fer blanc*), with an integral mouthpiece. One can blow two principal notes out of it, and it is most normally played in groups as a court ensemble. Occasionally, it can be



Kakaki, Niger, ca. 1975. NMM 02750.

played as a solo instrument to herald high officials. The conical bells are decorated with embossed geometrical motifs and the thin bell rims feature copper rings.

Photo by Ana Sofia Silva



Arched harp, Garoua, Cameroon, ca. 1988, NMM 05050.

Many types of arched harps can also be found throughout Africa, but the many regional variations share the same basic structural components: a neck fitted with tuning pegs to which the strings are attached; a resonator, which usually is a hollow body covered with animal skin that functions as a soundtable; and either a string-holder or a bridge at the other end of the strings. **NMM 05050** is of the type of arched harps that has a string-holder that lies under the soundtable, also known as longitudinal string-holders because they are parallel to the centerline of the soundtable and are in line with the neck. The body is made from a hollowed log carved into a boat-like shape, with two knob ends to which the skin is stretched and attached. The skin is also laced at the bottom of the body. The neck fits into a socket joint carved at one of those knob ends. The harp has five strings made of vegetable fibers. This instrument was collected in Garoua, in north Cameroon, by Verna Brynhilda Syverson (1924–2003), who was a former missionary for the Evangelical Lutheran Church (ELC) in the area. Born near Trail, Minnesota, Syverson attended Bemidji State University, the Lutheran Bible Institute in Minneapolis, and taught in local schools before going to parish work. She was commissioned into foreign mission work in 1960 and was assigned to the ELC Sudan Mission in Cameroon, where she worked in the orphanage in Meiganga. After serving 30 years in the mission field, she retired and returned to St. Paul, and later McIntosh, Minnesota. Syverson donated

this harp to the NMM in 1990. According to her, she obtained the harp from a local young man who made and played it in the late 1980s. As usual with African harps of this kind, the player would use the harp as accompaniment to his singing, and although there is the possibility of this instrument being made for the tourist market, the design is similar to the five-string *ganzavar* or *ganjavavar* harps used in the Mafa culture of the region.

A few of these non-Western instruments just presented were featured on display at the NMM in the former Beede Gallery on the second floor of the Carnegie building, which was officially dedicated in 1986 when the NMM completed one of its major renovation projects back then, in which Dr. Beede had played a major role. Grace Lucile Beede (1905–1990), a native of South Dakota and member of one of Vermillion's pioneer families, devoted her life to the development of the classics and support of the arts. During her tenure time at USD between 1928 and 1970, she became a notable figure in her field,

inspired countless students who had distinguished careers themselves, and contributed to the community and the arts. She was involved with the NMM from the very beginning as a founding member, a secretary in the early formative years, and later elected as an honorary trustee because of her continuous and generous commitment to the museum. She also donated some instruments, like **NMM 03050**, a set of “gurdwara” cymbals. These small brass cymbals were made in India and imported to the U.S. by S. S. Sarna, a famous company established by Sajjan Singh Sarna (1897–1978). Originally from Rawalpindi, a city in the

Photo by Ana Sofia Silva



Cymbals, India, ca. 1949–1973. NMM 03050.

Punjab region of Pakistan, Sarna came to America in 1920. In the late 1930s, he had established himself in New York as a wholesaler, specializing in bringing Indian articles to America, mostly textiles, incense, and brass items. The trademarks of “Sarna Brass” and “Bells of Sarna” were registered by him and became very popular during the 1960s. A peculiarity of this bell trade was that each bell was sold with a colorful accompanying story tag with the name of the bell, its purpose, and its history. This promotion strategy allowed Sarna to create a successful business offering many kinds of bells, but it was mainly aimed at the ornamental market of American homes. As such, most of the bells were sold in sets with hanging cords for decorative purposes rather than as musical instruments. NMM 03050 is no exception. While the tag story associated with this set talks briefly about cymbals being used in gurdwara temples for Sikh celebrations, this type of small brass cymbals would most probably be used in pairs as finger or hand cymbals, not suspended like this. The tag story continues its Indian reminiscence by providing a recipe for Indian Halwa, a typical sweet pudding—such was Sarna’s cleverness in promoting his products.



Photos by Ana Sofia Silva

Detail of promotional tags that accompanied NMM 03050.

Taking a geographical continental leap, **NMM 06750** takes us to the Chihuahua state in northern Mexico. This folk violin, also known as *raberí*, was made by the Rarámuri (Tarahumara) people of the region and it is a typical example of their traditional handcrafted instruments. Although size and proportions may vary, the *raberí* derives from Renaissance and Baroque violins brought to Mexico by the Spanish, and to the

Rarámuri by the Catholic clergy. It preserves very ancient types of violin construction, similar to how inexpensive violins would have been made in the 16th century, but made with locally harvested materials and tools. Because of that early development, these instruments are sometimes thought of as one of America's first schools of violin making. If one contemplates that the Rarámuri have been making violins since the mid-1500s, they are placed in the same timeline as some of the earliest violin makers of the Amati family in Cremona, Italy. The instruments are usually unvarnished, have metal strings (a more convenient alternative that replaced original animal gut strings), and are played with horsehair bows. The raberí is an essential element of the Rarámuri life and culture, as it is integrated into many

indigenous festivals, ceremonies, and customs such as running races—the Rarámuri also being known for their long-distance running traditions. For instance, during special running gatherings (*carreras de bola*), violinists can play particular tunes to conjure different forces to support and inspire the runners: *chomarí* (*venado*, deer) for speed, *rowí* (*conejo*, rabbit) for agility, and *shorachike* (*corazon*, heart) for endurance.

This particular example was collected by Hazel Marie (Stegen) Dempster (1917–1992) during a train tour through the Copper Canyon in the late 1980s. She purchased it from local artisans at the Divisadero station, one of the iconic train stops along the “El Chepe” route. Years later, her husband Adrian Robert Dempster (1916–2005) donated it to the NMM in 1999. They resided in Sioux Falls, where Hazel taught at Washington High School.

Raberí, Rarámuri people, Chihuahua, Mexico, ca. 1985. NMM 06750.



Photo by Bill Wilroth, Sr.

Panpipes, La Paz, Bolivia, ca. 1993. NMM 12150.

Moving further south, the journey continues with **NMM 12150**, a set of Bolivian panpipes. As one of the earliest musical instruments represented in various arts throughout history, panpipes are probably one of the most recognizable types of musical instruments that people know of. In their most simple form, panpipes consist of a number of pipes of graduated lengths assembled together usually in the form of a raft, but their worldwide distribution makes them as varied as possible. Depending on the geographical region and the associated culture, we can find them under various names, using many materials, and of diverse forms, as is typical with global instruments. In Bolivia, the panpipes one will encounter are generally known as the South American Andean panpipes, because they are spread throughout the length of the Andes Mountains chain. Though they can assume different names depending on the type of instrument (different shapes, sizes, and tunings), in general, the panpipes of the Bolivian Altiplano are known in the indigenous Aymara language as *siku*. The NMM example is made with 13 pipes assembled in a double row, or double rank, and bears an inscription “Walata/LA PAZ – BOLIVIA.” Walata Grande is a village on the highlands around the city of La Paz, known as a center of urban-dwelling flute makers from the specialized Aymara flute-making community. Although there is a musical instrument shop “Walata, El Sonido de los Andes” in the touristic Linares street in La Paz, this instrument was most probably made in the Walata region rather than “by Walata” maker. It was acquired new by collectors Paul and Jean Christian, from St. Paul, Minnesota, in the Bolivia



Photo by Ana Sofia Silva

booth of the Minnesota State Fair in 1993. As such, this instrument is most probably one of those that Hachmeyer, in his analytical work of contemporary Bolivian flute-making as a result of historical transformations, shifting markets, and sustainability of materials, identifies within the “touristic sphere” of contemporary flute-making. Many Walateño flute makers craft flutes destined for national and international tourism markets, as handicrafts. As such, these flutes often lose their musical purpose and are transformed into souvenirs, made in a semi-industrial mode of manufacture (Hachmeyer, 2021). The Christians donated this instrument, as well as a large collection of instruments and archives to the NMM in 2006.

Paul Jackson Christian (1920–2010) and Jean Loree (Dryden) Christian (1926–2011) began collecting musical instruments in the 1960s when they moved to the Twin Cities, and both taught at Bethel College (now Bethel University). Although they collected many non-Western instruments, they began with zithers, and therein lies the strength of the collection. Jean, who was an organist and music instructor, became interested in zither-like instruments because they were so varied to the point that she never saw two alike. It was not long before Paul, a professor of biology, used his taxonomy skills to organize and document the instruments in detail. Over the years, they expanded their collection interests, but the heart of the Christian Collection remained centered around their systematic assemblage of zithers, and zither-related materials and archives representing musical traditions and cultures from around the world.

Zither **NMM 11950** belongs to the group of fretless zithers also known as autoharps, which are basically box zithers with open (non-fretted) strings that have a mechanism of damper bars, or chord bars, controlled by buttons. As the player strums the strings, he presses the buttons to mute all the strings that are not part of the chord he wishes to play. As one of the earliest types of American-made zithers, the “Autoharp” was patented in the U.S. in 1882 by the German immigrant Charles Friedrich Zimmermann

(1817–1898), who built upon the design of a different chord zither (*Volkszither*) patented by Karl August Gütter (1823–1900) of Markneukirchen, Germany. Autoharps, like so many other variants of fretless zithers, became very popular instruments in the late 19th century, which led to a mass production of inexpensive instruments intended for amateurs and non-musicians. They soon became a mainstay of American mail-order catalogs and were marketed door-to-door by traveling salesmen. One of the best-known mass-producers of autoharps were the Oscar Schmidt “companies” that hailed from New Jersey. From a series of affiliations, merges, and partnerships, the company Oscar Schmidt-International Corporation (later Oscar Schmidt-International, Inc.) took over the zither-making business in the 1930s. Production rates were affected during the Depression and worsened during World War II, but afterward, the autoharp slowly came back with the expansion of the educational and school markets. During the sixties, it was again popularized with the “folk revival” and renewed interest in traditional American music. To this day, autoharps based on Zimmermann’s design and bearing the Oscar Schmidt name are still produced. This NMM autoharp example is a 12-chord, No. 73 model from the post-war period. It has 37

strings, 12 chord bars with wooden buttons, and a plain soundboard with only the music scale decal of golden color. Both the music scale and the celluloid oval labels at the bars have chord letters and Zimmermann’s musical notation figures. It also bears a four-digit batch number, #4648, in which the first two digits indicate the year of manufacture; a feature that the company only began to use by 1945.

Photo by Ana Sofia Silva



Autoharp, Oscar Schmidt-International, Inc., Jersey City, NJ, ca. 1946. NMM 11950.

Photo by Ana Sofia Silva



Psalmodikon, North America, ca. 1875–1900.
NMM 12650.

The next example, **NMM 12650**, is also a box zither, but of much simpler form and design. It consists of a narrow wooden box with an integral fretboard, having metal wire frets, and has only one gut string that is stretched with a tuning peg. So, in this case, we have a monochord (one-string) fretted zither that is usually known as a psalmodikon when it is associated with Scandinavian culture. With a concentrated presence in Norway and Sweden, the psalmodikon arose from the need to improve the quality of music within the church at the same time when musical instruments (at least the ones that were used in sinful dances) were not allowed in churches in the early 19th century. But choral singing was an important part of the Lutheran worship and for many of the rural congregations that could not afford organs, the psalmodikon presented itself as an ideal alternative and was well endorsed. Because of its simpleness and ease of playing, facilitated by numbered fretboards, the instrument not only improved the singing in church, but was also used to teach music in schools, and brought music into many homes. As such, many of the early Scandinavian immigrants took the psalmodikon and the *sifferskrift* (numerical musical notation) music along with them to America. The NMM rudimentary example has little provenance information, but considering the rich Scandinavian tradition in the Midwest, and the wood grain analysis done by former NMM Conservator, John Koster, identifying Eastern White Pine (*Pinus strobus*; a pine native to eastern North America), one can say that it was most probably made in North America, perhaps in one of those early rural settlements. The Christians acquired it at an antiques store in St. Paul in 1972.

Margaret Martin, Alan Bates, and the Christians are examples of passionate individuals who collected

extensively with the aim of building comprehensive collections of a certain instrument type so that these could be used for research and study. And that was a shared intent with both Arne B. and his son André, albeit with different nuances. While Arne B. collected as much as he could get his hands on, because he wanted to “collect their sounds” and learn as much as he could from the instruments themselves to share that knowledge as a teacher, André was more careful in his choices toward building a museum collection that would secure the NMM’s role and identity as a major cultural institution. The diverse collections and collectors represented at the NMM reflect those differences in time as well and are an intrinsic part of the museum’s history.

Perhaps the most significant mark in that history was the acquisition of the Witten collection in 1984, which placed the NMM on the international stage of musical instrument museum collections. Astute collector Laurence Claiborne Witten II (1926–1995) assembled a collection of the earliest, best preserved, and historically most important stringed instruments known to survive, as well as important archival materials to support and document the early history of violin making. Ambitiously driven by André, the purchase of this collection was made possible by USD alumni and NMM patrons Marjorie (Marge) Townsley Rawlins (1920–2009) and Robert (Bob) Ernest Rawlins (1911–1993), and so it became known as the Witten-Rawlins Collection. While some of the most important instruments from that collection are featured in the special exhibit “As Good as Gold,” **NMM 03350** (one number short of the Amati “King” cello!) is the only object in this collection that falls under the selection requisite for this article. It is a small fiddle usually known as pochette, a name that derives from the French word *poché* for “pocket,” because the small instrument, designed for easy portability, could fit into a pocket. This example has

Pochette, France, ca. 1650–1700. NMM 03350.

a typical narrow, boat-shaped body, which flourished most during the 17th century. The maker is unknown, but due to its similarity in materials and workmanship to other French pochettes of the period, which include gold-painted decoration, it was probably made in France.

Photo by Bill Willroth, Sr.



Another significant contribution that amplified the NMM's international reputation was the acquisition of the Joe R. and Joella F. Utley Collection of Brass Instruments in 1999. Similarly to what Witten wanted to do with early stringed instruments, Joe Roy Utley (1935–2001) and Joella Faye (Jordan) Utley (1935–2019) assembled an inclusive collection of more than 600 brass instruments to tell the history of high-brass instrument-making during the past 400 years. That history is being documented and written by Dr. Sabine Klaus—who curated the Utley collection for more than 20 years—in the form of a five-volume book series called *Trumpets and Other High Brass*

inspired by the instruments in the collection. For this article, the author chose three examples that not only illustrate the depth of the collection but also some of the reasoning behind the collection of certain instruments.

NMM 06850 is a soprano saxhorn in E-flat made with an upright bell and three top-action, string-operated rotary valves. As hinted in the name, saxhorns were developed by Antoine-Joseph Sax (1814–1894), better known as Adolphe Sax, the Belgian-born inventor of the saxophone. But the designation of “saxhorn” became a generic name for the family of brass instruments sharing similar features, not just for instruments made by Sax. Although this saxhorn is unsigned, and one cannot presently determine the

workshop where it originated, construction clues hint at some possibilities. Perhaps the most evident are the valves. String-operated rotary valves were an American development of the 19th century, and their increasing popularity led American manufacturers to employ them in saxhorn-type instruments with upright bells. Using the top-action variety, ensured that the players could keep the same playing position as other instruments with piston valves. However, the stylistic features of the braces (as well as comparison with other instruments) suggest German influence of the Saxon tradition in the construction, which may indicate the possibility of a Saxon import for the American market. According to Klaus, the bell-up E-flat soprano saxhorn is relatively rare compared with bell-up saxhorns in lower keys, and that speaks to the importance of collecting early unsigned instruments (Klaus, 2017).

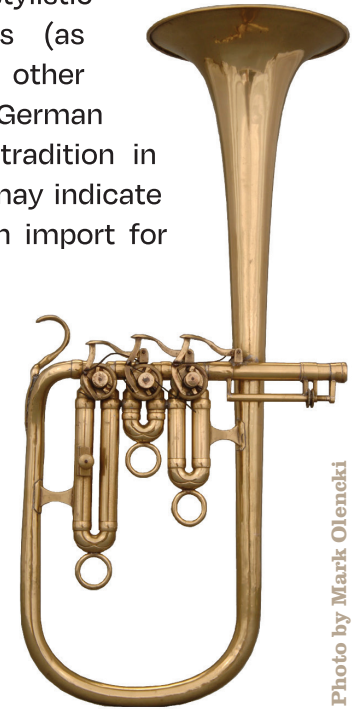


Photo by Mark Olencki

Soprano saxhorn, United States or Germany, ca. 1865–1880. NMM 06850.

The next example is placed on the opposite side of collecting modern instruments, which emphasizes the importance of buying new instruments to illustrate differences in manufacturing processes and document modern history. **NMM 07050** is a modern hunting horn with valves that Dr. Utley bought new. This small horn is built in the tradition of the Fürst-Pless Horn, which was developed in the 1870s with the standardization of Prussian military hunting horns, supervised by Hans-Heinrich XI, Fürst (Count) von Pless (1833–1907). The double-coiled horn is typically wrapped in green leather and was traditionally a natural instrument with no valves. They were equipped with valves only at the end of the 19th century. After von Pless's death, the bell of these

instruments featured an oval "Fürst-Pless" stamp or plaque. In Germany, these horns continue to be used in hunts, so manufacturers keep making both natural and valved models. The main difference between a Fürst-Pless hunting horn and the coiled post horn is in the bore profile: while the first has a predominant conical bore, like the flugelhorn, the second has a predominant cylindrical tubing, more trumpet-like.

Photo by Mark Oleneki



Valved hunting horn, Boehm and Meinl, Germany, 1990. NMM 07050.

The final example from the Utley collection, **NMM 07350**, is an unusual instrument called normaphone, which is basically a saxophone-shaped trumpet. In 1926, Oskar Richard Heber (1872–1938), from Markneukirchen, Germany, who produced brass instruments under his "Norma" brand, submitted a patent application for a "metal wind instrument with valves in saxophone shape." The design, from which an original drawing survives, was protected by a German Utility Patent (D.R.G.M. no. 51c 945 751) and Heber marketed his invention under the name "Normaphon." When jazz became wildly popular in Europe in the mid-1920s, the iconic jazz instruments, saxophones, were very expensive and hard to come by because the focus of saxophone production and development had shifted from Paris to the U.S., where it was booming. In the historical context after World War I, when there was much poverty in Germany and the newly formed Czechoslovakia, local brass

Soprano normaphone, Oskar Richard Heber, Markneukirchen, Germany, ca. 1926. NMM 07350.

manufacturers of the Vogtland and Bohemia regions made instruments that best suited their usual production. Making trumpets that looked like saxophones was less complex and such instruments could be played by the usual customers in the European market.

But speaking of unusual instruments, the NMM has its wide share of oddities in the collections. While for some of these instruments there may be substantial documentation about them, for others, the need for further investigation and research may still be present. As the years go by and access to digital media and information become more available, revisiting museum objects may lead to new discoveries (or not). Perhaps some of these less-known stories will inspire a future researcher at the NMM?

The Grand Harmonicon, **NMM 04150**, is a version of musical glasses patented in 1825 by Francis Hopkinson Smith (1797–1872), grandson of Francis Hopkinson (1737–1791), signer of the Declaration of Independence. Sets of musical glasses have been documented as early as the 15th century, but it was only in the middle of the 18th century that they reached some popularity as performance instruments. They were part of a general trend associated with the rise of modern science and technology of the time. Smith was engaged in the manufacturing and sale of his grand harmonicons in Richmond, Virginia, and Baltimore, Maryland, between 1824 and 1833. He also played it and wrote a *Preceptor for the Grand Harmonicon, or Musical Glasses*. The NMM example was purchased from Smith in 1830 by the father of

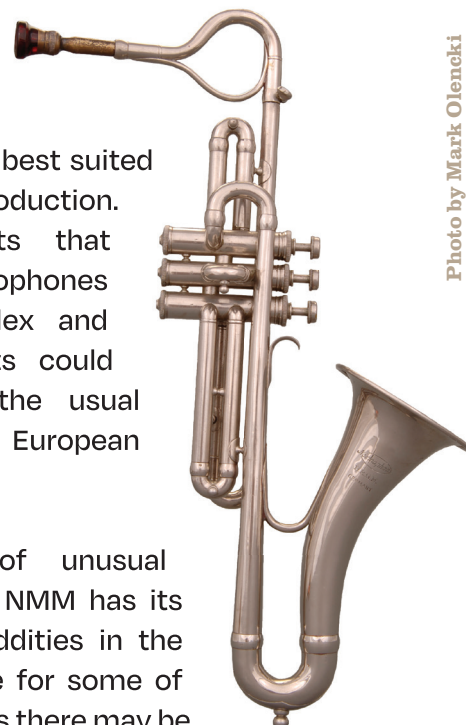


Photo by Mark Oleneki

Edward Gale Butler (1841–1917) of Dabney, Vance County, North Carolina. It remained in the same family (of last name Glover) who donated it to the NMM. Butler's daughter, Florence Margaret Butler (1891–1981) married Fred Weston Glover, Sr. (1874–1941). The instrument consists of a set of 24 bowl-shaped, flint glasses (3 are currently missing), which have blunt stems that fit into holes of a wooden soundboard assembled inside of the mahogany case. Each glass has a decal with the pitch letter. The glasses would be filled with water up to a certain level to achieve the desired pitch (though not all glasses needed water), and the player would sound them by rubbing the rims with moistened fingertips. The case sits on a pedestal column with carved claw feet at the corners of the base.

Photo by Byron Pillow



Grand Harmonicon, Francis H. Smith, Baltimore, MD, ca. 1829. NMM 04150.

Another unusual instrument at the NMM is the Stromso Star Harp zither, **NMM 04950**. In essence,

this instrument is a chord zither, with 124 metal strings grouped into 27 chords, and no melody strings. What is unusual about it is that is mostly made of metal (four triangular pieces of aluminum function as soundboards), and very little information



Photo by Byron Pillow

Chord zither, E. G. Lundquist & Co., Chicago, IL, ca. 1920–1950. NMM 04950.

has surfaced about "The Stromso Star Harp," its name as given by the manufacturer, featured on the instrument label, "E. G. Lundquist & Co.," located at 5209 Broadway, Chicago. According to information from a 1978 patent found for one Eric G. Lundquist (U.S. Patent 4,126,074) for a violin harp that is very similar to the NMM instrument, the manufacturer could probably be Eric Gustaf Lundquist (1889–1986), who was born in Sweden, immigrated to the U.S., and was naturalized in 1931. A lifelong resident of Rockford, Illinois, he is listed in U.S. directories and census as a machine operator, carpenter, and later as a musician working for a radio station. In the 1950s, he was listed at Broadway street addresses, but in Rockford, not Chicago. The 1978 Rockford city directory confirms that Lundquist, now retired, was located at the same address as the one on the patent. The author could not trace any further information about a company "E. G. Lundquist & Co." in Chicago at this point. Arne B. acquired this instrument from Fred Miller in Chicago, in 1954, so the instrument predates the patent. A second zither that is somewhat similar to this instrument surfaced years later with the Christian collection (NMM 12001), but it bears a different maker stamp for "Swedish

Harp/E. Lund" and a "patent applied for" stamp as well. As the only two instruments known to us of this type, there is some speculation that these could have been prototypes since so little information about "Lundquist & Co." and other instruments has surfaced so far.



Photo by Ana Sofia Silva

The next instrument is a "harp-guitar" of unconventional shape that is essentially a guitar because it features the same six strings on a standard neck. **NMM 04650** has no extra open or unfretted strings to pluck like the true harp-guitar instruments. Its name comes from the "Patent Harp Guitar" granted in 1831 to Emilius Nicolai Scherr (1794–1874), a Danish immigrant who established a successful factory in Philadelphia to build mostly pianos and organs. The body of the instrument includes a hollowed extension on the lower section that provides a base to rest it on the floor in a fashion similar to a harp, hence the name. Scherr wanted to increase the volume of the instrument and believed that leaning the guitar against the player's body would muffle the sound, so he came up with the idea of an upright, self-standing guitar. Scherr's patent is the earliest known U.S. patent for a plucked string instrument. Before the 1830s there were very few makers in the country and most of the guitars were imported from Europe. It was only after the arrival of Christian Frederick Martin Sr. (1796–1873) in 1833

Harp guitar, Emilius N. Scherr, Philadelphia, PA, ca. 1831. NMM 04650.

that the production of American guitars truly started. Scherr's Harp-Guitars are amongst the earliest guitar-type instruments produced in America that descend from the Austro-German making tradition. The NMM example is one of eleven extant instruments known so far, with decoration that is typical from earlier instruments in the Federal style (contemporary style of American furniture, ca. 1790–1830). Provenance history also indicates that this instrument was part of the estate collection of Sylvea Bull (Vaughan) Curtis (1907–1988), grand-daughter of the famous Norwegian virtuoso violinist Ole Bornemann Bull (1810–1880), who was friends with Scherr.

And since C. F. Martin was introduced, it seems only appropriate that we include one example of instruments from this renowned company that made the cut from the group of pre-selected instruments for this article. This is a small soprano ukulele from ca. 1920s, **NMM 14950**, which is a Style 2 model made of mahogany. By this time, the C. F. Martin company was already located in Nazareth, Pennsylvania, and flourishing under the direction of third-generation Frank Henry Martin (1888–1945). Frank Henry had the ability to sense market trends and adjust manufacturing accordingly. With the craze of Hawaiian music in the early 1900s, Americans fell in love with ukuleles and the Martin company followed suit in becoming one of the major ukulele manufacturers in the mainland. Part of that growth in demand and production was due to the making of fine instruments, which resulted from early experimentation in uke-making. The use of mahogany, for instance, allowed for the production of



Photo by Dara Lohnes-Davies

Soprano ukulele, C. F. Martin & Co., Nazareth, PA, ca. 1923–1930. NMM 14950.

more robust instruments as opposed to the light ones made with native Hawaiian koa wood. The Style 2 was a standard mid-line model that featured celluloid binding. In terms of model design, the higher the style number, the fancier the instrument. This ukulele is part of the Geoffrey Robert Rezek (b. 1941) Collection at the NMM, which includes about sixty instruments that Rezek collected and donated over the years, as well as extensive archival materials that support ukulele-related education and research. More than an ukulele enthusiast and collector, Rezek is also a player and teacher with the belief that “the ukulele is a way of life.”

The ukulele is a Hawaiian adaptation of a small Portuguese plucked string instrument called *machete de braga* or *braguinha*, which was introduced in Hawaii by Portuguese immigrants from the Madeira islands in the late 1870s. Soon, the beloved instrument became part of the Hawaiian culture. The ukulele had two peaks of popularity in the U.S. mainland. First, with the 1915 Panama–Pacific International Exposition that took place in San Francisco, California (which then led to the craze explained above). Second, with *Arthur Godfrey’s* TV shows that exposed the ukulele to millions of viewers in the 1950s. American radio and television broadcaster and entertainer, Arthur Morton Leo Godfrey (1903–1983), was a ukulele player himself. When the famous guitar designer Mario Maccaferri (1900–1993) launched the line of plastic “Islander” ukuleles in 1949, Godfrey’s enthusiastic endorsement of these led to another boost in production that reached millions of manufactured instruments.

Photo by Ana Sofia Silva



Soprano ukulele, French American Reeds Manuf. Co., New York, NY, ca. 1952–1963. NMM 14150.

Maccaferri combined his interests in musical instrument design with his expertise in plastic products he had been developing since the war times and the shortage of materials. **NMM 14150** is one of those Islander Ukes designed by Maccaferri and made by the company he started in New York (French American Reeds Manufacturing Company, which later became Mastro Plastics Corporation) when he fled the war and moved his reed manufacturing business from Paris. By 1941, Maccaferri was investing in plastic injection molding machines for his company and began to establish his successful business in plastics. Despite the millions produced, there is some consensus that few early plastic ukuleles turn up today, as most probably these were seen as “toy” instruments and were easily discarded. The NMM is fortunate to have some examples that survived in near-mint condition because they came to the museum from the Arne B. Larson Estate, which included many stock instruments from the Larson family music store in Brookings, SD. This example is also a soprano ukulele size, made of Styron® plastic with a multi-color, marbled back intended to simulate rosewood. This effect, a result of the unpredictable nature of mixing colors in the injection molding process (plastic pellets are heated, melted, and then injected with pressure into a mold), made each instrument unique in color patterns.



Photo by Bill Willroth, Sr.

Detail from back of ukulele NMM 14150.

And before moving on from the ukulele craze of the 1920s, there is one other instrument that also became popular during that time: a North American version of the tiple. Meaning “treble” in Spanish, the name “tiple” is used for many variations of instruments from the guitar family in Spain and other

countries in Latin America. The ten-string tiple that was first designed by the Martin company in 1919 took inspiration from an original tiple brought from Argentina. Martin’s redesign reduced the instrument’s size and furnished it with steel strings tuned the same as a ukulele. As such, any ukulele player could play the tiple; a new instrument with a completely different and rich sound. Soon, other U.S. companies were making and marketing their own versions of tipples. **NMM 03850**, from the ABL collection, is one of such instruments made by the Regal Musical Instrument Company, in Chicago, one of the major manufacturers of fretted, plucked-string instruments in the first half of the 20th century that competed aggressively and catered to the mail-order market. The ten strings of this tiple were arranged in four courses (or groups) of two-, three-, three-, and two-strings.

Photo by Dara Lohnes-Davies



Tiple, Regal Musical Instrument Company, Chicago, IL, ca. 1925–1940. NMM 03850.

This next instrument is another example of a near-mint condition object that Arne B. purchased new for his music store and came to the museum through the estate. **NMM 04750** is a castanet machine usually known as “concert castanets” because these are primarily meant to be used in band or orchestral performances in a mounted device or stand. As such, the construction of these instruments is quite

different from the more popular versions of handheld castanets associated with Spanish music and flamenco dance. This version of concert castanets is made with two halves of castanet cups assembled on a wooden block base. Ludwig introduced their “concert castanets” as a “new product” in April 1963. The castanets were made of bakelite and were secured with an elastic cord to a brass wire attached to a black-painted, hardwood mounting block. This design allowed the performer to play the castanets with the fingers (or soft mallets) without mounting them on the hands, which usually would take too long, and have a better feeling and control during the performance. According to Albert (Al) Eugene Payson (b. 1934), a percussionist with the Chicago Symphony Orchestra between 1958 and 1997, the Ludwig device allowed the performer to play all the fundamental rudiments, or characteristic sounds derived from the castanets, used by Spanish dancers, with the exception of the *choque* (“The Ludwig Drummer” Vol. 3, no. 2, November 1963). The *choque* sound (Spanish for “shock,” also known as “tchi” or “chi”) is made by hitting the hand castanets against each other, which obviously, was not possible to do with the concert castanets. From 1965 on, Ludwig changed the mounting block to clear rosewood, so the NMM example is representative of the first line of production.



Photo by Ana Sofia Silva

Concert castanets, Ludwig Drum Company, Chicago, IL, ca. 1963–1966. NMM 04750.

One last example from the group of instruments from the Arne B. estate that were accessioned is a representative of the many stencil instruments that can be researched at the NMM. In the context

Flute, Italy, ca. 1950–1957. NMM 14750.

Photo by Ana Sofia Silva



of musical instruments, a “stencil instrument” is one marked with a tradename or the name of a distributor company (or both). Usually, “stencils” can be imported from countries with low-cost manufacturing or ordered from manufacturers that produce low-cost instruments. Sometimes, these could be supplied to various companies in a semi- or un-finished condition with the intent that the distributing company would complete and brand them. But mostly, these affordable options were meant to be exclusively distributed by dealers, which, in many instances, did not manufacture instruments at all, but still “wanted in” in the market competition. As such, attribution of specific makers in historic instruments is very difficult. **NMM 14750** is a flute that bears the engraved tradename “A. Fontaine,” a “made in Italy” stamp, and a serial number 3926. According to the PGMI, that tradename was used by the Fred Gretsch Manufacturing Company, in Brooklyn, New York, for “clarinets, flutes, and woodwind accessories made in Paris.” This flute, however, was made in Italy. Gretsch started offering “A. Fontaine” wood and metal clarinets only at first, around 1930–40s. These, yes, from Paris manufacturers like Couesnon. At this time, Gretsch was only offering US-made flutes (under the tradenames Symphony, Commander, and American). In 1957,

Gretsch discontinued “A. Fontaine” flute and piccolo models, and introduced the new line of I. M. Grassi flutes and piccolos made in Milan for them, along with a new Grassi flyer catalog. Ida Maria Grassi started making flutes and piccolos after WWII in a small garage in Via Dezza which soon gathered the attention of the American market and led her to open a factory in Cinisello Balsamo. Although one

cannot determine with absolute certainty without further research, it is possible to consider that Grassi could have made the stencil flutes for Gretsch when she first started to export, perhaps under some initial form of partnership before Gretsch officially recognized Grassi as a supplier for their imports.

Another instrument of unconventional shape is the violute, **NMM 04350**, which is an experimental violin with a pear-shaped body. This instrument was invented and patented by German immigrant George D. Hambrecht (1867–1940) of Canajoharie, New York, in 1930 (U.S. Patent 1,773,674). According to Hambrecht’s patent, the instrument was designed to produce an improved violin tone through one large vibrating air space rather than the two spaces from the standard eight-shaped violin. The name “violute” was a contraction of the words “violin” and “flute” because the instrument produced a flute-like tone. The NMM holds two violutes that were both collected by Arne B. and he loved to use one (NMM 02522) in his lecture demonstrations. According to Hambrecht’s obituary published in the *Fort Plain NY Standard* (May 16, 1940), he came to America very young at the age of 14, and was first employed in the woodworking trade of wagon making. When he settled in Canajoharie, he kept a wagon-making and blacksmithing business with his brother Henry, until the latter passed away in 1929. From then on, Hambrecht followed his trade of general wood repair and furniture making. The obituary goes on to describe that he was “a musician for many years [and]

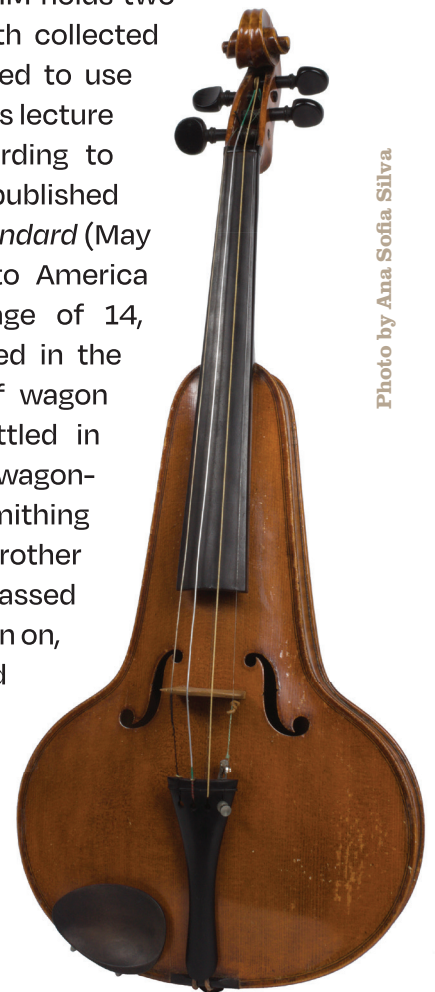


Photo by Ana Sofia Silva

Violute, Germany, ca. 1930–1940. NMM 04350.

manufactured a number of instruments, which were named violutes which were used extensively by orchestra leaders." Hambrecht was also an active member of many local music groups and orchestras. In the 1990s, Hambrecht's great-grandson, James P. Dillon (b. 1946), was undertaking a quest for extant violutes made by his ancestor and found out about the NMM examples. Dillon confirmed that his great-grandfather "was a very fine cabinet maker," because the family had "various pieces of beautifully inlay furniture" he had designed and built, and that he "also made violins and gave violin lessons, being a skilled musician in his own right." However, while the instruments that Dillon found had hand-written inscriptions inside, with serial numbers and the granted patent number, both the NMM examples do not have the same inscription. Instead, they bear a single, small paper label with "Made in Germany." Without further investigation and examination, one can hint at the possibilities that Hambrecht could have commissioned a German firm to manufacture some instruments for him, or a German firm could have built instruments based on Hambrecht's patent.

The following instrument may not be as unusual to the eye of percussionists, but it sure strikes the eye of anyone who sees it. **NMM 14350** is a form of glockenspiel known as bell-lyra, which is basically a percussion instrument with tuned metal bars (metallophone) assembled in a lyre-shaped frame. It is an instrument mainly used in military and other marching bands because it is meant to be portable. The frame is held upright and fixed to a staff that is carried by a player's belt. In earlier and lighter models, it could be handheld. When "fully dressed" the bell-lyra can have horse-hair tassels like the ones seen in this example. The frame of the lyre is made of brass, with a texturized decoration in the form of a hand-hammered, honey-comb design, and the top ends of the arms finish with eagle heads from which the tassels are suspended. At the crossbar on the top, there are remains of soft solder, which are indicative that another decorative element (perhaps a perched eagle with spread wings) is missing. This type of design and decoration is seen in other bell-lyras of German manufacture, particularly the choir bell-

lyras made by the company Josef Klier in Diespeck, Germany. Since the NMM example does not bear any maker's mark or stamp, further communication with the company that still exists today confirmed that Klier manufactured this style of bell-lyra most probably after 1948, when the company was located in Birkenfeld. The two-octave range (C-C) tuned bars are arranged chromatically in two rows, in keyboard style, and bear English system key notation (letters of notes stamped on the bars), which means this instrument was probably made for the international export market. The NMM received this bell-lyra from Vernon Clyde Harp, Jr. (1919–2011) in 2008, who said it had been used in the Bohemian Grove (Bohemian Club, San Francisco, CA) Bavarian Band since about 1977.



Photo by Ana Sofia Silva

**Bell-lyra, Josef Klier, Germany, ca. 1948–1952.
NMM 14350.**

Another oddity that used to be popular throughout the first half of the 20th century were double-bell euphoniums, like **NMM 05950**. First produced in the U.S. by C. G. Conn in the late 1880s, it was created both as a novelty instrument and to give an extra sound variant to a band without having to increase the number of players. The larger bell produces a

Double-bell euphonium, C. G. Conn, Ltd., Elkhart, IN, ca. 1924. NMM 05950.



Photo by Ana Sofia Silva

baritone-horn or euphonium warm sound, whereas the smaller bell produces a tenor-horn or trombone brighter sound. The player could easily switch bells to make two different sounds (and echo effects) or play one or the other throughout a single piece. The instruments could have both detachable and directional bells, or be like this NMM example, with the larger, upright, default bell fixed, and the second smaller bell directional, meaning one could adjust the position to

which to point the bell. This five, front-action, valve cluster model was typical of Conn's designs. The fifth valve would give access to the extra bell, and the fourth valve would extend the lower register of the instrument and simplify fingering. The interior of both bells on this silver-plated brass euphonium is gold-plated, and the serial number 217979, places manufacture circa 1924. The popularity of this instrument incited by professional soloist players during the Golden Age of Bands led to its mass production by many instrument manufacturers in the U.S., but unfortunately that popularity and usage declined throughout the years, with production ceasing in the 1960s. Perhaps one of the last

popular references to "double bell euphoniums" was in the lyrics of the song "Seventy-Six Trombones" from the 1957 musical *The Music Man*, by Meredith Willson (1902–1984). More recently, the double bell euphonium has seen a rebirth in interest through the modern "Duplex" B-flat euphonium made by Wessex Tubas in the UK.

The NMM is also home to many European and American stringed keyboard instruments that span from the early 16th to the late 20th century. In the collection of square pianos—so called because of their rectangular shape and square corners—**NMM 14650** is an early 19th-century piano made by John Osborne (c. 1792–1835), one of the finest early American makers who was active in Boston, and later in New York. This example is a representative of Osborne's culmination style of early square piano manufacturing before he introduced a more massive style around 1824. However, according to Kuronen, Osborne incorporated considerable variety in the decorative elements of his instruments, so one seldom finds two alike (Kuronen, 2016). It is made in the standard English style with double action, in which there is an intermediate lever that pushes the main hammer towards the string, and an

Square piano, John Osborne, Boston, MA, ca. 1823. NMM 14650.



Photo by Byron Pillow

adjustable setoff in the hopper (or jack) that provides escapement (mechanism that permits the hammer to disengage and rebound away from the string). In this action, there is no check (or back check), which is the mechanism that catches the hammer to prevent its rebounding against the string. It has a keyboard with 68 keys and a compass (range) from FF to c⁴. The mostly mahogany-veneered case has rounded front corners, with two drawers between the front legs, and an inlaid brass nameplate. The instrument has six turned legs with brass casters and top collars, and one pedal in the form of a slender lyre for the damper mechanism. It came to the NMM in 2012 via the Rotch-Jones-Duff House and Garden Museum in New Bedford, Massachusetts.

The next keyboard example, **NMM 13550**, is a Viennese grand piano made by Ignaz Bösendorfer (1794–1859), who established a distinguished firm of piano manufacturing in 1928 that still exists today and makes prime instruments. One of the most eminent artists of the 19th century who endorsed Bösendorfer pianos was Franz Liszt (1811–1886), and many of their early instruments, like this NMM piano, were designed with Liszt and his passionate playing in mind. As expected, this piano uses the Viennese action (*Prellzungenmechanik*), in which the hammer is assembled to the key lever by a hinged mechanism called kapsel, the escapement mechanism is built separately at the back of the keyboard rail, and there is a check to catch the hammer. It has a keyboard with 85 keys and a compass from AAA to a⁴. The case is veneered in mahogany and has the typical grand-piano, S-shaped bent side incorporating the tail. The inside of the fallboard is painted black and bears the maker's inscription and decoration in gold. There are three hexagonal-shaped legs with brass casters, and two brass pedals are assembled in a wooden lyre-shaped frame. One pedal is for the damper mechanism, and the other is for "una corda," or keyboard shift. The latter shifts the whole piano action sideways so that the hammers only strike "one string," instead of all three strings this piano has per note. While this instrument shows elements of the increase in size and weight, compass and

stringing, the simpler Viennese action, which was more sensible to the player's touch and expression, could not keep up with the desire for more volume as musical tastes changed and concert halls became bigger during the 19th century. As such, it gave way to the complex English action that continued to evolve into the modern piano action of today.

Photo by Bill Willroth, Sr.



Grand piano, Ignaz Bösendorfer, Vienna, Austria, ca. 1845–1849. NMM 13550.

To complete the article, the author chose an example of a recording device that is also represented in the collections. Although the NMM no longer actively pursues collecting recording/reproduction devices, it retains selective examples from its formative years like **NMM 00850**, which is an Edison phonograph. American inventor Thomas Alva Edison (1837–1931) unveiled his cylinder phonograph in 1877, a device that could record sound and play it back. Despite

his congenital deafness, Edison's vision of the phonograph would redefine the recording industry, but it was a flawed novelty at first, and the "Wizard of Menlo Park" turned his focus on electric light and the electrification of New York. Partially influenced by others who were making improvements to his invention, and determined to make those himself, Edison only resumed his work on the phonograph when he organized his own recording company in 1887, The Edison Phonograph Company. This model, the Edison Home Phonograph, was first introduced in 1896, the same year Edison started the National Phonograph Company, which would manufacture phonographs for home entertainment use. Built into a "new style" oak case with a carrying cover and decorated with the trademark golden banner decal in black lettering, the mechanism is a Home model B, serial number H171619, dating ca. 1905–1910, retrofitted with an improved gearing lever to play both 2- and 4-minute records that were wax cylinders. Before Edison released the Home model D in late 1908 (the same year he introduced the 4-minute Amberol cylinders) that came with a 2/4-minute combination gear mechanism from factory, previous models could only play the 2-minute speed. Therefore, many machines were retrofitted with various gear mechanisms afterward.

The mechanism in this example was an improved version of earlier designs that made use of a casting accessory with a lever switch, assembled in the set-screw pillar of the back-rod. Although this NMM example does not have an original horn associated, the case is also fitted with a bracket accessory that allows installing a crane to suspend horn resonators of a larger format than the standard 14-in size.

THE AUTHOR HOPES THIS ARTICLE was interesting enough to illustrate how the NMM's vast and diverse collections are fundamental for documenting and preserving history, and tell many different stories of music, culture, and people. One could look at it as a small virtual catalog of musical instruments. The author tried to select as much as possible for a varied representation of musical instrument types but recognizes that many were not featured at all—an oboe or bassoon being a few examples—which merely happened because their catalog number did not end in 50. One must, however, keep in perspective that the featured 50 objects constitute less than 0.5% of the entirety of the musical instrument collection at the NMM.

Photo by Dara Lohnes-Davies



Phonograph, Thomas A. Edison, Inc., Orange, NJ, ca. 1905–1910. NMM 00850.

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- Kuronen, Darcy. "Early Pianomaking in Boston, 1790–1830." In *Boston Furniture, 1700–1900*, edited by Brock Jobe and Gerald W. R. Ward, 315–334. Boston, MA: Colonial Society of Massachusetts, 2016.
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ADDITIONAL RESEARCH MATERIALS

- NMM Archives, NMM Musical Instrument Manufacturers Archives (MIMA), NMM Newsletters
- Jean Jenkins Archives, National Museum of Scotland
- Tai Hei Shakuhachi, Monty H. Levenson
- Contempora Corner
- Grove Music Online

NMM INSTRUMENTS CHECKLIST

00050. Violin, United States, ca. 1900–1940. Ex coll.: Lloyd Loar, Evanston, Illinois. Arne B. Larson Collection, 1979.

00350. Tuba in BB-flat (HP) by C. G. Conn, Elkhart, Indiana, ca. 1904. Serial number 84655. Arne B. Larson Collection, 1979.

00850. Phonograph by Thomas A. Edison, Inc., Orange, New Jersey, ca. 1905–1910. Edison Home Phonograph, model B (retrofitted), serial number H171619. Arne B. Larson Collection, 1979.

01150. Bugle in B-flat (HP) by F. Millard Co., Detroit, Michigan, 1917. U.S. Army Quartermaster Specification No. 1152. Arne B. Larson Collection, 1979.

01250. End-blown flute, shakuhachi, in F-sharp or G by Minzan, Japan, ca. 1930–1940. Tozan Ryu school. Arne B. Larson Collection, 1979.

02350. Cornet in B-flat/A (HP/LP) by C. G. Conn, Ltd., Elkhart, Indiana, ca. 1918. Victor New Wonder model, serial number 156876. Gift of the W. R. Cleland Estate, 1977.

02450. Alto recorder in F, Germany, ca. 1954–1955. "Heidelberg" tradename, distributed by Grossman Music Corporation, Cleveland, Ohio. Arne B. Larson Collection, 1979.

02750. End-blown trumpet, kakaki, Niger, ca. 1975. Double-bell. Ex coll.: World of Islam Festival Trust (U.K.). Board of Trustees, 1980.

03050. Cymbals, India, ca. 1949–1973. Set of "Gurdwara" cymbals from "Bells of Sarna" trademark, distributed by S. S. Sarna, Manhasset, New York. Gift of Grace L. Beede, 1982.

03350. Pochette fiddle, France, ca. 1650–1700.

Ex coll.: Emil Herrmann, New York. Witten-Rawlins Collection, 1984.

03850. Tiple guitar by Regal Musical Instrument Company, Chicago, Illinois, ca. 1925–1940. Model 37. Arne B. Larson Collection, 1979.

04050. Courting flute, Native American people, Northern Great Plains, North America, ca. 1885–1915. Arne B. Larson Collection, 1979.

04150. Grand Harmonicon by Francis H. Smith, Baltimore, Maryland, ca. 1829. Gift of Carter Taylor Glover, in memory of her husband, Fred Weston Glover, 1987.

04350. Violute, Germany, ca. 1930–1940. Gift of Arne B. Larson, 1988.

04650. Harp Guitar by Emilius Nicolai Scherr, Philadelphia, Pennsylvania, ca. 1831. Ex coll.: Ole Bull, Norway. Purchase funds gift of Stella Anker, 1989.

04750. Concert castanets by Ludwig Drum Company, Chicago, Illinois, ca. 1963–1966. Arne B. Larson Estate, 1988.

04950. Chord zither by E. G. Lundquist & Co., Chicago, Illinois, ca. 1920–1950. Stromso Star Harp, serial number 4.0F.1.Ch. Arne B. Larson Collection, 1979.

05050. Arched harp, Garoua, Cameroon, ca. 1988. Gift of Verna Syverson, 1990.

05250. Tenor slide trombone in B-flat by F. A. Reynolds Co., Fullerton, California, 1968. Contempora TO-11 model, serial number 236447. Gift of James S. Patterson Estate, 1991.

05750. Bass saxophone in B-flat by Evette & Schaeffer/Bufet Crampon & Cie, Paris, ca. 1910–1912. Distributed by Carl Fischer, New York. Ex coll.:

Hewitt A. Waggener, Los Angeles, California. Transfer from Ball State University, 1994.

05850. Clarinet in B-flat by Dolnet, Paris, ca. 1925–1940. “A. Grass” tradename, distributed by Achille Grass, Paris, serial number 5581. Rosario Mazzeo Collection, 1995.

05950. Double-bell euphonium in B-flat by C. G. Conn, Ltd., Elkhart, Indiana, ca. 1924. Model 94-I (LP) or 95-I (HP), serial number 217979. Gift of Jim Maxey, 1996.

06050. Tenor saxophone in B-flat (LP) by C. G. Conn, Ltd., Elkhart, Indiana, ca. 1947. Model 10M, serial number 324912. Gift of Arthur Bjornsen, 1997.

06150. Bass drum by Ludwig Drum Company, Chicago, Illinois, 1961. Ex coll.: Tom Ptak, Wagner, South Dakota. Gift of Phoebe J. Orton, 1998.

06250. Whistle, before 1983. Margaret Martin Collection, 1998.

06650. Whistle, Cuzco, Peru, before 1985. Margaret Martin Collection, 1998.

06750. Raberi violin, Rarámuri (Tarahumara) people, Copper Canyon, Chihuahua, Mexico, ca. 1985. Gift of Adrian Dempster, 1999.

06850. Soprano saxhorn in E-flat, United States or Saxony, Germany, ca. 1865–1880. Joe R. and Joella F. Utley Collection, 1999.

07050. Valved hunting horn in Bb by Boehm and Meinl, Geretsried, Germany, 1990. Fürst-Pless Horn, model no. 325. Joe R. and Joella F. Utley Collection, 1999.

07350. Soprano normaphone attributed to Oskar Richard Heber, Markneukirchen, Germany, ca. 1926. Normaphon model, serial number O117. Joe R. and Joella F. Utley Collection, 1999.

08050. Chromatic harmonica in G by C. A. Seydel

Söhne, Klingenthal, Germany, ca. 1935–1940. Bandmaster Chromatic model. Alan G. Bates Collection, 2000.

08450. Triple chord harmonica by Matthias Hohner, Inc., Trossingen, Germany, ca. 1950–1970. Polyphonia No. 8 model. Alan G. Bates Collection, 2000.

08950. Diatonic harmonica in G by Andreas Koch, Trossingen, Germany, ca. 1910–1928. “The Atlas” model, organ pipe style. Alan G. Bates Collection, 2000.

09150. Harmonica in C by Gustav A. Doerfel, Klingenthal, Germany, ca. 1925–1930. “Richard Wagner” model. Alan G. Bates Collection, 2000.

10250. Double harmonica in C/G by Max Spranger, Klingenthal, Germany, ca. 1935–1940. “Erlkönig” model, octave-tuned. Alan G. Bates Collection, 2000.

11950. Autoharp zither by Oscar Schmidt-International, Inc., Jersey City, New Jersey, ca. 1946. Model No. 73, serial number 4648. Paul and Jean Christian Collection, 2006.

12150. Panpipes, siku, Walata Grande, La Paz, Bolivia, ca. 1993. Paul and Jean Christian Collection, 2006.

12650. Psalmodikon zither, United States, ca. 1875–1900. Paul and Jean Christian Collection, 2006.

12950. Drum set by Leedy Manufacturing Company, Elkhart, Indiana, ca. 1940. New “Trianon” Outfit model, distributed by Tom Berry Music Company, Inc., Fort Wayne, Indiana. Gift of Mary (Brinksneider) Hertel and Richard Hertel, 2006.

13550. Grand piano by Ignaz Bösendorfer, Vienna, Austria, ca. 1845–1849. Viennese action, serial number 2726. Gift of Davidi Gilo, 2007.

13650. Clarinet in B-flat by H. & A. Selmer, Inc., Elkhart, Indiana, ca. 1962–1971. Bundy Resonite Mazzeo Model 1400M, serial number 361922. Gift of Conn-Selmer, Inc., 2008.

13950. Bass-baritone bugle in G/D by Frank Holton & Company, Elkhorn, Wisconsin, ca. 1959. Model no. 368, serial number 319193. Gift of Conn-Selmer, Inc., 2008.

14150. Soprano ukulele by French American Reeds Manufacturing Company, New York, New York, ca. 1952–1963. Islander Uke model. Arne B. Larson Estate, 1988.

14350. Bell-lyra glockenspiel by Josef Klier, Birkenfeld, Germany, ca. 1948–1952. Chor-Lyra model. Gift of Vernon C. Harp, 2008.

14650. Square piano by John Osborne, Boston, Massachusetts, ca. 1823. English style with double action, serial number 344. Gift of The Rotch-Jones-Duff House and Garden Museum, 2012.

14750. Flute in C, Italy, ca. 1950–1957. Boehm system, "A. Fontaine" tradename, distributed by Fred Gretsch Manufacturing Company, Brooklyn, New York, and Chicago, Illinois, serial number 3926. Arne B. Larson Estate, 1988.

14950. Soprano ukulele by C. F. Martin & Company, Nazareth, Pennsylvania, ca. 1923–1930. Style 2 model. Geoffrey Robert Rezek Collection, 2014.

15050. Miniature harmonica by C. Wheatstone & Co., Ltd., London, England, ca. 1946–1949. "Buddy" model. Gift of Neil Wayne, 2016.

15550. King George marimba by J. C. Deagan, Inc., Chicago, Illinois, 1934. International Marimba Symphony Orchestra (IMSO) FH model, no. 92 of limited edition of 102. Gift of Katherine A. Moen, 2020.

15650. Clarinet in A by G. L. Penzel & Müller, New York, New York, ca. 1910–1918. "Albert" system, German-style with 16 keys and 5 rings. Thomas Ayres Clarinet Collection, 2021.



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