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## THE TOSCANINI LEGACY

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### ***Don McCormick and Seth Winner***

This article<sup>1</sup> concerns the collection of documents and recordings forming a special part of the holdings of the Performing Arts Research Center of The New York Public Library at Lincoln Center in New York that is now entitled "The Toscanini Legacy." Described by The Library's President, Dr. Vartan Gregorian, as "one of the greatest archives ever to document a single career," this collection of scores, books, letters, pictures, films and recordings was developed and expanded from the Maestro's own personal collection by his late son, Walter, who spared neither effort nor expense to make the archive as comprehensive as possible. During the 1940s, 50s and 60s, it filled ever larger portions of the 28-room Villa Pauline, the family home in Riverdale, New York. In amassing the collection, Walter devoted much of his time to searching out existing dubbings of his father's broadcast and "live" non-broadcast performances and rerecording and restoring as many of them as possible. That Walter realized the importance of documenting his father's performances throughout his life is well demonstrated by the existence in the Legacy of six single-sided shellac discs of Toscanini rehearsing the La Scala Orchestra in 1926. Knowing that his father had an aversion to early recording techniques, yet realizing the importance of the recently developed microphone, Walter himself made these rare, fragmented excerpts from a box in the theatre.

In the last years of his life, Walter searched desperately for a home for this great collection. After a severe stroke led to events that created financial difficulties for him, he was forced to sell his beloved Villa Pauline in 1970, and it was later demolished. The New York Public Library had already expressed interest in the Toscanini archive and agreed to store its entire contents in the library at Lincoln Center. More than 700 crates, boxes and file cabinets of material were transferred there in early 1970. And there it sat, inaccessible to anyone for fifteen years while the Toscanini family negotiated with the Library on a suitable contract for transferring ownership.

As these negotiations approached fruition in 1985, funding was obtained by The Library to conduct a full scale inventory and appraisal of the entire collection. With this achieved, a contract was signed between the heirs and The Library in December 1986, at which time "The Toscanini Legacy" became a part of the holdings of The Library. Wanda Toscanini Horowitz then contributed \$100,000 to begin work on processing and preserving the archive.

What follows is a broad, general outline of the contents of this collection. The 1985 inventory consists of some 55 folders filled with reams of pages containing detailed listings, but space obviously prohibits detailing them here. Instead, a list of categories which was prepared in the early 1970s when negotiations first commenced is presented.

### Pictorial material

- Photographs, black & white and color, of Toscanini
- Paintings, lithographs, sketches, sculptures
- Kinescopes of ten NBC-TV performances
- Ten reels of 35mm film, including the master copy of *Hymn of the Nations*
- More than thirty reels of 16mm home movies from 1929 to 1957
- Twelve reels of miscellaneous newsreel material, including Toscanini's funeral

### Printed documentation

- Newspaper and magazine clippings dating back to the review of Maestro's 1886 debut
- Books, biographies, and critical evaluations containing any mention of Toscanini, many annotated and corrected by Walter
- Theatre and concert programs
- Press releases, circulars, and pamphlets relating to Toscanini's life

### Personal mementos

- Files of letters, autographs, and telegrams
- Toscanini's scores with his personal annotations, as well as annotated orchestral parts used
- Personal collection of compositions he himself had written
- Financial and business records, and contracts
- A large range of material as diverse as Debussy's baton, Toscanini's own batons, his handwriting on record labels as he was commenting on whether or not to release the recordings, and rare early printed music

### Sound recordings

- 4,600 acetate discs (16-inch and 12-inch) of rehearsals and performances (both broadcast and not), including air checks from other sources such as the Ed Walther, the Kennedy, and the O'Neill collections. Also, a number of fairly unique recordings with the Palestine Orchestra in 1938, the Lucerne Festival in 1938 and 1939, and the Philharmonic-Symphony Orchestra of New York from 1932 to 1936
- Six shellac 78 rpm discs of the La Scala 1926 rehearsal
- 1,789 test pressings (78 rpm, 45 rpm, and 33 1/3 rpm) of released performances
- 799 test pressings of unreleased performances
- About 3,000 commercial discs of his own performances (78 rpm, 45 rpm, and 33 1/3 rpm)
- Walter's personal record collection
- Recordings of other conductors and soloists from the Maestro's personal collection

## Toscanini Legacy

- 358 tape reels of NBC rehearsals (original recordings)
- 570 tape reels of same (derived from other sources)
- 167 tape reels of concerts and broadcasts (originals)
- 2,756 reels of same (derived from other sources)
- 506 tape reels derived from his commercial recordings (reference copies for radio stations)
- 106 tape reels (musical selections only) of the radio series *A Critic's Toscanini* with complete program typescripts
- 220 tape reels of the series *Toscanini: The Man Behind the Legend*, including music and interviews
- More than 100 tapes of the family, including interviews with Toscanini by Walter
- 35 reels of nitrate-based 7mm film, known as Selenophone film, containing the sound portion of his 1937 Salzburg performances of *Die Meistersinger*, *Die Zauberflöte*, and *Falstaff*, and Bruno Walter conducting *Nozze di Figaro* and *Don Giovanni*
- The Selenophone machine to reproduce the above

To close this introduction, here is a report on the current status of this mammoth collection. With the initial funding provided by Wanda Toscanini Horowitz, the Music Division and the Rodgers and Hammerstein Archives of Recorded Sound of The Library have begun working on processing and preserving these materials. A description of the ongoing project on the sound portion of this collection follows below. The Music Division is creating a finding list of all the print and pictorial material. It also has developed a plan for the archival processing of this collection including cataloging, indexing, and microfilming. The Library will need to raise at least \$500,000 in additional resources to complete the processing and preservation of the two segments of this unique archive.

As defined by the extant contract, The New York Public Library has committed itself to accomplishing 15 goals with respect to "The Toscanini Legacy":

- the perpetuation of the memory, spirit and works of Toscanini;
- the Legacy will be maintained as a special collection within the two stated library divisions;
- the provision of adequate staff and funds to maintain and preserve the items;
- periodic inspection of the items and repair or replacement of deteriorated or damaged items;
- the initiation of a program of educational activities with respect to the items;
- the cataloging, processing and storage of items, and provision for study/audition space;
- restoration and protection of the items, with special emphasis on perishable sound materials;
- provision of audio/visual playback, microfilm, and dubbing equipment necessary for the use of the material by scholars and the public;
- designation of a special listening room named after Arturo Toscanini with an appropriate plaque;

- the holding of a major exhibition celebrating the acquisition of the collection and the scheduling of an appropriate event or exhibit annually;
- the preparation of a detailed catalog of the Legacy and its publication;
- an effort to prepare and publish a "Toscanini Almanac" with source material drawn from the collection;
- making available the items for exhibitions both in The Library and in other institutions;
- the scheduling of exhibitions in the Lincoln Center library of material from the Legacy including sound supplements;
- the assurance by The Library that the items, including the sound material, will be available to individuals for research and special project work.

The Rodgers and Hammerstein Archives received a New York state grant in 1987 to conduct a cooperative preservation program on acetate recordings with several other state institutions. Seth Winner was hired at that time to work on the transfer of selected deteriorating recordings to archival tape stock. In July 1988, when funding for this project was depleted, he was assigned the immense task of beginning similar work on "The Toscanini Legacy" utilizing the resources provided by Wanda Toscanini Horowitz.

The first assignment in the preservation of this collection was to establish priorities, once the discs (acetate, shellac, and metal parts) were unpacked. Any boxes having acetate discs were opened and their contents removed.

The 16-inch discs were packed in either wooden crates or cardboard boxes, and grouped in paper packages or metal tins. The wooden crates contained mostly broadcasts, either NBC lacquers or RCA "Victrolac" pressings, in chronological order. However, the existing rehearsals to *La Bohème*, *La Traviata*, *Romeo and Juliet*, *Otello*, *Aïda*, and *Falstaff* were stored in the same crates. The cardboard boxes contained Ed Walther air checks dating from 1938 to 1950. Walther was an engineer in Washington, D.C. who recorded the NBC broadcasts from a telephone line at a local radio station. The discs in metal tins were primarily RCA glass-based discs of World War II concerts and a few rehearsals. The remaining discs, wrapped in paper, were rehearsals and broadcasts recorded by NBC and/or RCA. All of these discs were placed on shelves in chronological order, one section for rehearsals and another for broadcasts or "live" performance recordings.

All the 12-inch acetates then were removed from their packing cartons and placed on temporary shelving in chronological order according to concert or rehearsal dates. Accessibility to these items would be important if the "primary" 16-inch sources proved imperfect. Most of the 12-inch discs, recorded at 78 rpm, were either the Ed Walther source, NBC dubs of 16-inch discs, Lucerne Festival concerts, miscellaneous odds and ends from rehearsals, or off-the-air sources from private collections.

Once this unpacking and arranging was accomplished, a survey of other collections in the Rodgers and Hammerstein Archives was made for any additional sources of rehearsals and concerts. Those found were added to the Legacy collection.

Using the extensive inventory sheets compiled in 1985, Curator Don McCormick and Sound Engineer Seth Winner concluded that the New York Philharmonic, Lucerne Festival, and Palestine Orchestra discs were unique and of high priority. However, most of these discs were found to be in excellent condition and could probably continue to be stored for preservation taping in the future. The discs for one

Lucerne concert showed signs of possible flaking and these were slated for immediate preservation transfer.

Analysis of the various components of the collection indicated that the rehearsals were the other most important and valuable items in the collection, and should be given high priority for a number of reasons.

- The regular NBC broadcast and non-broadcast concerts, in most cases, existed in duplicate in the collection; indeed some concerts were found in quadruplicate, all from the same source.
- The rehearsal acetates and tapes were unique. They never were broadcasted, and rarely did more than three copies exist.
- The rehearsal discs also were deemed in the worst shape when the collection was unpacked. Glass-based discs were badly cracked, broken, or had missing pieces. Several suffered severe deterioration resulting from oxidation (white powder) on the surfaces, or, even worse, from “pitting” of the grooves. Heat damage was evident on the exposed surfaces of the discs still in their original paper sleeves.

Given this abundance of material to work with, the next decision involved selecting those copies which should be cleaned, transferred, and cataloged. The importance of the material suggested that two copies of the primary sources of broadcasts, and all copies of rehearsals from the Legacy, should be processed. For example, if a specific concert had one set of NBC lacquers, two sets of off-the-air dubs (one AM, one FM), and RCA lacquers/pressings, then the NBC and RCA sources would be processed. The remaining sources would become part of a “B” collection. These “B” discs were repacked into the wooden crates and placed in an area adjacent to the work studio set up for the project, providing ready accessibility to alternative copies if needed as the work progressed.

In cleaning and assigning classification to the discs, several procedures were followed. The glass-based items were cleaned on a Keith Monks machine using distilled water. \*LJ-16 classmarks (shelf location numbers) were secured to the first sides as well as to the upper right-hand corner of the Shield-Pak envelopes used for resleeving the collection. These envelopes are excellent for archival purposes. They consist of three layers: acid-free paper outside, aluminum foil in the middle, and a non-reactive polyester coating on the inside. They can be sealed airtight with applied heat. A color code noting the condition of each disc was affixed to the sleeve: red tape for glass-based, blue if broken or cracked, and white if there were signs of oxidation or other deterioration. Specific remarks were written if necessary.

Aluminum-based discs similarly were cleaned and marked, with a further cleaning process applied to aluminum-based acetate discs showing signs of deterioration. This process involved first an application of mineral oil to the surface with a lint-free towel. The disc was then washed in a solution of liquid soap and Kodak Photoflo 200. The soap solution was applied with the Monks machine brush and the wet surface vacuum-dried on the machine. A sticker was placed below the classmark on the sleeve, indicating the date that the disc had been treated with mineral oil. This was done so that future monitoring of the effects of this cleaning procedure would be possible. The cleaned and sleeved lacquers were then reshelved in their chronological sequence. To date, all the rehearsal discs have been cleaned. The performance/

broadcast discs will be attended to later, once the rehearsals have been completely transferred.

Chronologically, the first rehearsals in the collection are from October 1926. There are six 12-inch shellac pressings of excerpts from Beethoven's Second, Fourth, and Sixth symphonies. Maestro Toscanini conducted a Beethoven cycle with the La Scala Orchestra in Milan to commemorate the centenary of the composer's death that season. The excerpts, captured on five sides (one is a duplicate), were recorded from a box seat in the La Scala Theatre with equipment provided by "Voce del Padrone," the Italian branch of "His Master's Voice." The most interesting side, where Maestro stops the orchestra and "instructs" them, is cracked in two places. It took two days to transfer it because of tracking problems.

The rehearsals jump next to 1940, where excerpts for the concerts of April 13th, 20th, and 27th exist. The wonder here is the fact that the sound is superb, despite noisy (scratched) surfaces. One can also hear every word spoken by Toscanini, probably due to the good microphone placement in NBC's Studio 8-H.

The complete rehearsals begin more or less with the 1946-47 season. Unfortunately, not every rehearsal of each broadcast is in the collection. Some broadcasts have none, while others have the two working and final dress rehearsals. The sequential transfer order of rehearsals has been determined by a collection of tape dubs of the rehearsal discs and tapes made by John Corbett. Mr. Corbett was the engineer who worked on Walter Toscanini's Riverdale Project from 1953 to 1965. His sequence of tape dubs provided a good road map of work to be done on the acetate discs. These dubs also can be used as alternate sources if discs turn out to be unplayable. An example of this is cited below.

The transfer equipment used in this project was as follows:

- Technics SP-15 turntable, 3-speed, variable pitch +/- 9.9%, mounted with an SME 3012 arm set with an overhang which accommodates discs up to 20 inches
- Owl audio products: OWL I, Multifilter, and styli in sizes ranging from 1.5 mil to 3.8 mil, truncated conical and/or elliptical
- Stanton 310 pre-amp used in conjunction with the Packburn 323A noise reduction unit
- Urei 565 Filter Set.
- Tascam M-30 mixing board
- Klarktechnik DN 60 Spectrum Analyser
- Leader 310A oscilloscope
- PJ-390 balanced patch bay
- Otari 5050B reel-to-reel tape deck
- Teac A-3440 reel-to-reel tape deck
- AGFA 468 archival 1/4-inch tape on reels

The first step in the transfer/restoration process concerns selection of the correct playback stylus. A signal must be produced that has as little surface noise as possible, without picking up excessive clicks, pops, and groove wear. During the pre-transfer test, all the filters are bypassed, and the turnover and rolloff switches on the Owl I are set to the flat position.

The second step involves determining correct playback equalization. The turnover

(or bass boost) is chosen by switching from one setting to another on the Owl I, until the lower frequencies sound correct (i.e., not too "thin" or "boomy"). Unwanted rumble can be detected if the turnover frequency is set too high. The rolloff is chosen so that the upper frequencies don't sound "shrill" or "dull." Most of the discs in the collection are marked "Orthacoustic." According to the standards of the day, the cutting curve was 1KHz for the turnover point, and -16dB for the rolloff at 10KHz. It was found that a more "realistic" playback curve could be achieved with a 750Hz turnover, and a -14dB rolloff, for the discs transferred so far.

The third step entails noise reduction processing. The spectral analyser shows visually where certain inherent problems are found in the recording undergoing transfer. Rumble, hum, and whistles can be seen quite clearly. The Urei 565 and the filter network on the Owl I seem to clear up most of these problems. The important thing to remember is that a filter, when used properly, should not affect the overall sound of the signal being processed, even while removing unwanted frequencies. Once something is taken out, it cannot be put back in. The use of the Packburn Noise Reduction unit is determined by the condition of the grooves, which could cause noisy playback. The blanker section remedies most of the clicks and pops that are present. The switcher section is particularly helpful in processing worn discs.

In the actual transferring process, all the archival copies generated are preserved on AGFA 468 1/4-inch tape with a 1KHz test tone, 0dB VU, for thirty seconds, placed at the start of each reel. Leader tape is spliced in at this point. The music is recorded after the leader tape. All works are noted in real time on information/technical data sheets. These are affixed to the finished tape boxes. All settings, comments, problems, and source information are indicated on these sheets. The faders on the mixing board are used to set the record levels on the Otari tape recorder. The music is preserved on the tapes with the signal brought up at the beginning, and faded down at the end, through these controls.

Editing is accomplished either by hand splicing with a razor blade and grease pencil or by electronically "butting" the side joins. The former is used when there is an instantaneous break in the signal from one side to another. The latter is done when the discs have large overlaps, or when there is a side break during a pause. An appropriate section is selected where the overlap occurs on the new side. Depending on how noisy the new side is, it is preferable to use as much of this side as possible because of diameter equalization, which is explained in the next paragraph. The disc is cued to the section desired and then back-cued a half-turn for start-up. The tape is then rewound to a point before the edit is to occur. The tape is started in the play mode. When the edit point occurs, the turntable is started, and the record mode on the recorder is activated. This technique is preferable because splicing tape can dry out, resulting in breakage or oozing after years of storage. Since these tapes are unique archival copies, the less splicing the better.

Diameter equalization is a sonic problem that must be corrected when restoring acetate discs. To correct the problem of inside grooves having a poorer frequency response than outside grooves, a treble compensation must be done. The Tascam mixing board has a 12.5KHz equalization potentiometer that provides the desired compensation. By setting them at the eleven o'clock position on outside grooves, the pots can then be gradually turned to their flat (twelve o'clock) positions for the inside grooves. This gradual adjustment is done after three to five minutes of play on a 33 1/3 rpm 16-inch disc, and 1 to 1.5 minutes of play on a 78 rpm 12-inch disc. This type of compensation is done by recording the beginning and end of the two sides that

have to be joined. By listening to the edited side break, the change in sound is the determining factor for the correct compensation.

The finished tapes are labeled and sent to a cataloger for a \*LT-10 classmark. The assigned classmarks are entered on the attached data/technical sheets, and affixed to the spines of each tape box. All details about each of the finished tapes are entered into a database managed by Advanced Revelation, a software program locally adapted for archival cataloging. The database generates a printed finding list, indexed by composers, titles, and performers in addition to the chronological listing. The finding list is kept at the reference desk in the Archives' listening room to support public access to the collection.

When a request is made, the tape, stored in the audio playback room, is placed on a reproducing tape recorder by staff and the listener hears the tape through headphones, in a remote listening carrel in the Archives' listening room. If future funding allows, service copies will be generated for the entire collection. As of this writing, 166 tapes of Toscanini materials are available for listening. In addition to the rehearsals dating from 1926 and 1940-1949, there are dubs of most of the live BBC Symphony Orchestra performances, recorded in 1935 and 1938 by HMV.

As always, there are individual inherent problems that occur when transferring acetate discs and tapes. When the rehearsals to *La Bohème* were being restored, the very first glass-based side of the rehearsal of January 25, 1946, had a piece about three inches deep missing. The tape dub made by John Corbett, however, was recorded when the disc was intact. Hence, this dub was used up to the point where the disc was playable in preparing the archival copy. Another problem is serious deterioration, or "pitting" of the surfaces. When this happens, the discs can range from mildly noisy to untrackable. Most of the *Die Walküre* rehearsals from April 1947, were unplayable. The Corbett tape backups were used here again to create the archival copies. Tracking problems due to poor cutting, or particles embedded in the grooves can result in skips, sticking, or severe distortion. Poor cutting can result from a piece of acetate caught under the cutting head during recording. Several measures can be taken to counteract this, such as changing the anti-skate and weight of the stylus in the tone arm. If the stylus still mistracks, then rubbing a razor blade on the area in question might shave down the distorted ridge created by the cutting head. This must be done with the utmost care and delicacy. Shaving too much can gouge out the grooves, causing a loss of signal or a noisy passage. Embedded dirt can be removed with a fingernail by scratching carefully in the direction of the groove where the particle is lodged. Distortion occurs when a particle of dust or dirt lodges between the stylus and the record groove. The only remedy for this situation is to lift the stylus off the record and thoroughly clean it. Needless to say, this can be frustrating in the middle of dubbing, because the transfer must be started over.

The tape copies made at Riverdale have served as the road map of the sequence of rehearsals that will be preserved. They also are used as the main source for copying if the original discs from which they were copied are not in the Legacy. For instance, the tapes of the *Death and Transfiguration* rehearsal of November 28, 1947, are marked to indicate that they were from RCA lacquers, and none of these have surfaced in the Legacy. The tapes also can serve as the preferred source for preservation when specific problems with the discs prohibit any alternative. When they are used as a primary source, an "A" is written on the spines of their boxes, and they are then classmarked and cataloged as original sources with the other archival

copies. Those not used are marked with a “B” and returned to their original packing boxes.

Nevertheless, even these “A” tapes create problems. For instance, the splicing tape used to join the acetate and paper leader tape has often dried out and no longer adheres. These joins have to be undone, cleaned, and reattached with new tape. A still more perplexing problem encountered has been an excess deposit of lubrication on the backing side, causing wow, flutter, and pitch instability. By applying cotton swabs to the tapes as they are fast-wound through a tape player, these pitch problems can be alleviated somewhat.

A future article concerning the Selenophone machine mentioned earlier, as well as other parts of this collection, is planned. It also is hoped that a complete catalog of the Legacy will be published when the entire project is finished. When John Corbett was interviewed by Seth Winner in January 1989, he was asked, “What was Walter Toscanini’s intention in setting up the Riverdale Project?” His reply: “To keep his father’s name alive, long after he had stopped conducting.” As “The Toscanini Legacy” becomes a reality after so many years, his wish hopefully will come true.

### ADDENDUM

List of recorded excerpts on the demo tape played during the presentation of this paper at the ARSC Annual Conference, Kansas City, Missouri, June 1989.

- 1) Beethoven: Symphony No. 2. Third movement. La Scala Orchestra. Rehearsal for the Concert of October 7, 1926. (Teatro alla Scala.)
- 2) Bruckner: Symphony No. 7. End of third movement.
- 3) Richard Strauss: *Salome*. End of the Dance of the Seven Veils. Philharmonic-Symphony Orchestra of New York. Broadcast of January 27, 1935. (Carnegie Hall).
- 4) Opening Announcements for the First Toscanini/NBC Symphony Orchestra Concert. December 25, 1937. (NBC Studio 8-H).
- 5) Brahms: Symphony No. 2. Fourth movement, beginning. Two sources: WRVR rebroadcast of 1963, and RCA Victrolac pressing. NBC Symphony Orchestra. Broadcast of February 12, 1938. (NBC Studio 8-H).
- 6) Mozart: Symphony No. 38. First movement, excerpt. Two sources: WRVR rebroadcast of 1963, and NBC lacquer. NBC Symphony Orchestra. Broadcast of February 4, 1939. (NBC Studio 8-H.).
- 7) Mozart: Symphony No. 39. Third movement, beginning. Rehearsal of March 5, 1948, and broadcast of March 6, 1948. NBC Symphony Orchestra. (NBC Studio 8-H).
- 8) Beethoven: *Fidelio*. Finale. Dress Rehearsal of December 16, 1944. NBC Symphony Orchestra with Rose Bampton, Jan Peerce, etc. (NBC Studio 8-H).
- 9) Meyerbeer: *L'Étoile du Nord*. Overture. Rehearsal of November 1, 1951. NBC Symphony Orchestra. (Carnegie Hall).

<sup>1</sup> Adapted from a paper presented at the 1989 Annual Conference of the Association for Recorded Sound Collections in Kansas City, Missouri on June 2, 1989. 