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Editor: Grace Koch, Australian Institute of Aboriginal and Torres Strait Islander Studies, PO Box 553, Canberra, ACT 2601, Australia.

Editorial board: Co-editor, Mary Miliano, National Film and Sound Archive, Acton ACT 2601, Australia. Review and Recent Publications Editor, Dr R.O. Martin Elste, Regensburger Strasse 5a, D-1000 Berlin 30.

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Editor: Grace Koch, Australian Institute of Aboriginal and Torres Strait Islander Studies, PO Box 553, Canberra, ACT 2601, Australia. Fax (06) 249 7310

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Treasurer: Mari Grimstad, Programarkivet, NRK, N-0340 Oslo, Norway. Fax (2) 45 86 13

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EDITORIAL

Grace Koch

The conference in Sopron, IASA's second "IASA only" meeting, provided a welcome chance to connect with our Eastern European colleagues in a peaceful forest setting. The Canberra committee will have to work very hard to keep up the high standards of cuisine and of conference activities!

This issue includes papers from Sopron as well as one from the Ottawa conference. It was most gratifying to me, as editor, to be presented with so many papers after the sessions! There were enough to be spread between two issues—an editor's delight! I saw three major issues coming out of the Sopron meeting; the future role for IASA in the field of audiovisual media, development and plans for sound archives in Eastern European countries, and the concern for adequate archival sound carriers. There was much discussion on the first topic, and we shall be looking at the future of IASA in the audiovisual sphere in issue No. 60. Those people present at Sopron who promised me letters to the editor on the subject will be hearing from me!

This issue begins with radio archives—with the historical development of Hungarian Radio, its organisation, and its changing role to the public. Next, we delve through a series of radio sound archives in Europe as we join János Sebestyén in his search for early Hungarian recordings. We then venture into the area of the visual in a description of the organisation of Hungarian Television. Finally, we learn about Slovak Radio and the South African Broadcasting Corporation.

In the technical area, we see how colleagues at the Vienna Phonogrammarchiv restored early recordings of the Vienna Men's Choral Society. Unfortunately, since this journal is restricted to print, we miss the aural demonstrations that were presented in Ottawa. The last two articles examine future technical developments. Denis Oudard from Digipress spoke to his paper in the Technical forum at Sopron, and the issues raised were of great interest to members. I felt that the complete paper should be read by the IASA membership. The last paper gives a brief survey of the state of the art of archival sound carriers. And, of course, Martin Elste offers us information on Reviews and Recent Publications.
I thank Mary Miliano and Elizabeth Goold for the preparation of this issue. Also, special thanks to Magdalena Csève for arranging for the printing and to her and the Hungarian organising committee for their magnificent job in co-ordinating the Sopron conference. Please be advised that the deadline for the next issue is 30 March, 1992.
THE SOUND ARCHIVE OF HUNGARIAN RADIO: A FIXED POINT IN THE CHANGING WORLD

Magdalena Csève, Zoltan Bódi, Hungarian Radio, Budapest

Presented in the Radio Sound Archives Committee Open Session at the IASA Conference, Sopron, 1991

Historical background
Last December, the Hungarian Radio celebrated its 65th anniversary. The first programme was broadcast on 1 December, 1925. At the beginning, the programmes were transmitted live, so the oldest sound documents are dated from the early thirties. Archival materials from that time were recorded on disc. Like other broadcasting companies, discs were divided into two categories—commercial and non-commercial, home-produced records. Between 1925 and 1944, roughly 20,000 discs were acquired, and from this huge amount only 7-800 discs (about 4 per cent), which were made up of wax records and decelith discs made by portable recorders, formed the so-called Radio Archive. Near the end of World War II, especially during the siege of Budapest, the stored recordings were totally decimated by annihilation or dispersal.

In spite of this regrettable situation, our Radio has numerous documents recorded between the World Wars. These are the programmes transmitted and recorded at that time, not the commercial records. These documents survive because in the early thirties, a new hobby was fashionable amongst the radio amateurs—phono recording. Thanks to these very enthusiastic people, a considerable number of recordings marking the era were left. With hard work we were able to obtain a significant amount of amateur recordings and to re-establish the Radio Archive of that time. Naturally there was much work involved and there were many technical problems. After the Archive resumed its work, many of the damaged and lost discs were also recovered.

At the dawn of the fifties came magnetic tape. This fact radically changed the operation of the Radio. Actually, this was the time when the Archive was established and conscious collecting was begun. The Archive was created to collect and to store all of the important documents—recordings broadcast through the Hungarian Radio. The Archive was allowed to obtain recordings made in other archives and institutions with the goal of using them in radio programmes later on. The Archive was attached to a department which handled
all of the written materials and all of the sound recordings found in the Radio. At that time, the work was characterised more by enthusiasm than by professionalism. The Archive collected passionately everything that they felt would be useful for the future. Numerous recordings from several fields were put into the Archive; such recordings reflected the social and political life in Hungary and the surrounding countries. These included conferences and meetings of the Communist Party, special marches and demonstrations, and the so-called "conception actions" which were characteristic for that period.

Operating the Archive in the stormy decades
During the centuries the fate and the history of Hungary and the Carpathian Basin suffered and changed a lot. Political regimes were coming and going. Ideologies remained or changed. Censorship according to the interest of the ruling powers flourished. Censorship was introduced in several fields at various times. No exception was made for the Radio. Censors worked first of all in the programming field, especially before and at actual broadcasting. Censorship was established in the Archive as well, but in another way. Fortunately, license was given more or less for collecting, but strict regulations were introduced for use. Namely, documents were put under arrest and the use was linked to the permission of the president of the Radio or to the supervising body above the Radio. The license was given in the case where the controller was convinced that the information to be broadcasted was harmless. This license was given in a written form.

I continue with a true story. On 22 October, 1981, the day before the 25th anniversary of the October revolution, a programme maker, wanting information, visited me in my office. At that time I was working in the information service of the Archive. You should know that this was the first year that the Radio and the Television were allowed to broadcast a memorial programme about those October days. This programme maker wanted to use a short sound segment from the speech of János Kádár on 1 November 1956. This speech had been hidden in the Archive for several years and no one was allowed to hear it.

The programme maker told me that the programme mentioned had a special license from the president of the Radio at that time. This statement was true, with the exception of this short speech. I believed the statement without seeing the written permission, and I loaned it. You may think that I shouldn't have dared to do this! A big scandal did happen. The following day I shivered, waiting for some action. The decision was that the sound recording was not allowed to be broadcast, and I was reprimanded—just reprimanded, thanks to my boss at that time, and not sent off! But I must say that this recording contained the speech where János Kádár mentioned that the October event was a popular uprising. Thirty years passed, and see what happened! Imre Pozsgay stated that the October event was a popular uprising! The moral of that story is: before you do or say something, you have to wait for awhile!
**Growing into the tasks**

Back in the 1950s, the staff of the Archive, as I said before, collected everything without a developed collection policy. If you examine the Archive at that time, you can see that the archival work was more like a manufactured work than a well-organised process. The documentation looked like a library of ancient times. On the catalogue cards are written the whole story and not subject headings characterising the record. Also, the preservation conditions were not the best. The recordings were stored in different cellars without regard to danger.

At the end of the 1970s, the new managers of the Archive realised the importance of our work. At this time, the staff was able to develop guidelines for documentation, subject headings, archival routines, and this was the time that the Radio joined IASA and began to benefit from all the experience therein.

The first action was to create new, efficient rules for documentation. The development was well timed because the Radio was preparing to erect a new building for the entire documentation and archival sections. Perhaps some members of IASA remember our presentation in 1981 and our report given earlier in the conference about this topic.

These documentation rules were the first written regulations. It was a great undertaking to get traditional radio and programme makers to accept it. The main task was to work out a collecting policy. For this huge task a documentation committee was formed. This group drew up principles of operation for the Record Library, which keeps all materials which have been broadcast and working copies for a time, and for the Sound Archive, which stores only the most important items of documentary and historical value for posterity.

**Figure 1. Quantitative representation of the sound recordings**

![Graph showing quantitative representation of sound recordings]
After this planning period, the committee changed its structure and became an executive body whose task was to decide upon the fate of the sound materials. The members of this group were the heads of the programme making sections and the members of the Documentation Department. The job of this committee was to choose records from the Record Library when their preservation time expired—for one to five years—according to broadcasting plans. The committee had the power to put either complete or partial records into the Archive or to decide upon disposal. This was the committee which took responsibility about all the sound recordings stored in the Hungarian Radio. This type of work remains a difficult task. Our collecting policy differs from that of other broadcasting archives in the fact that there is not a National Sound Archive in Hungary. Because we are the largest collection in the country, we are having to function like a national sound archive. This, naturally, causes many problems. We could not neglect the fact, without publicising it, that we have to play the role of a national sound archive. This is the reason that the user can find more documents of wide scope reflecting political and historical events in our archive rather than in other radio archives. During the last 15 years, the Directors of the Archive fought against those powers who would force the Radio Archive to undertake the role of a national collection. They refused to accept this situation, and so do I. However, during the past years we collected more than would have really been necessary.

Documentation tools and techniques
The Hungarian Radio has half a million sound recordings in its Record Library and its Sound Archive. This relatively large body of material requires a reliable information system to ensure easy access and retrieval of recordings. It is well accepted that such an information system can only be operated effectively with computer support, but paperwork still plays a significant role in our archive. So far, about 50% of the documents have been computerised. In this paper we will not deal with the conventional card catalogue system, the aim instead is to give a brief survey of the modern tools and techniques used in the Archive.

Figure 2. The ratio between the current and the archive tapes

<table>
<thead>
<tr>
<th>Record Library</th>
<th>Archive</th>
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<tbody>
<tr>
<td>6%</td>
<td>94%</td>
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As in other archives, documentation has been divided into administrative and descriptive parts. Administrative documentation covers mainly the reference number and general description of the recorded material that meet the requirements of registration in the storage system. Descriptive documentation identifies the sound material for the users (mainly for the editors and other programme makers) and provides an analysis and summary of its content.

The data structure of our documents resembles the recommendations of the Manual of Archival Description, 2nd Edition: Special Format for the Description of Sound Archives (MAD2).

Because all sound materials must be registered properly, all documents in the Record Library and the Archive have administrative documentation. Descriptive documentation, however, is not obligatory for each item. The amount of descriptive documentation is determined by the Documentation Committee and by the processing capacity of the Archives staff. Therefore, 10 to 20 per cent of the collection may receive descriptive cataloguing.

**Computer systems in the Archive**

The first steps towards Sound Archive computerisation began in the early eighties. After a slow start of a few years, the spread of the relatively inexpensive mini- and micro- computers gave impetus to the process. Although Documentation and the Sound Archive have been working in a strongly centralised manner, the Radio has never been able to afford a large mainframe computer and the many terminals that would be necessary to serve all the users of a large centralised database, so a distributed data processing system has been developed. This mixed system with mini- and micro-computers connected in a network supports not only the Archive but some different activities of the Radio. The computer-based information systems of the Archive occupy about 50 per cent of the total capacity of this network.

The whole network consists of some old DATAPoint processors (the first computers used in the Radio), two microVAX computers with 16 VAX terminals, and more than ten IBM PC-compatible personal computers. In spite of their name, the microVAX computers are mini-computers. The bulky on-line databases of the Archive are stored partly on the microVAX and partly on the DATAPoint machines. In addition, some smaller parts of the databases are stored locally on PC's. The microVAX processors, like the most powerful elements of the system, are operated as database processors in the network. The PC's in the network are suitable both for local processing and terminal operation, and these communicate with the database processors.
Figure 3 The distributed data-processing system of the Hungarian Radio

**DATAPoint NETWORK**

**DECNET**

Datapoint and PC terminals
This system allows a flexible use of the documentation system for different users. There are two main user groups with different tasks: the archival staff, which are responsible for creating the description and managing the documentation databases, and the so-called 'end users', who are the programme makers and some researchers from outside who have permission from the Radio to use its resources. These 'end users' may not modify or add data, and they are only entitled to search the public documentation databases via terminals.

**Database system and programming facilities**

The archival documentation database uses the microCDS/ISIS system, which was created by Unesco and has been adopted widely in libraries, repositories, and other archives in Hungary. CDS/ISIS is a generalised information storage and retrieval system designed specifically for the computerised management of structured text databases. In addition to the essential built-in database manipulating operations, CDS/ISIS offers an integrated programming facility for advanced users that allows the development of custom-made applications and/or the functional extension of the original software.

The latest 2.3 version of the system can be operated on both VAX machines and IBM-compatible PC’s, so this option ideally meets our existing hardware resources. The unique characteristic of CDS/ISIS is that it can handle fields (and consequently, records) of varying length, thus allowing both an optimal use of disk space and complete freedom in defining the maximum length of each field.

The most efficient way of searching with CDS/ISIS is through inverted files, which contain a dictionary of search terms available for the database. Inverted files are the outcome of the special indexing technique applied in the system. The search terms can be defined in advance for a given database. The content of each inverted file is updated after each data entry or modification. However, no matter how well thought out your database is, there will still be cases where you are not able to formulate a search based on the inverted file. For these situations, CDS/ISIS provides an alternative method, free text searching, which allows you to satisfy any search requirement independently from the contents of the inverted file. Because this second method is much less efficient, it results in a longer response time.

In addition to inverted file searching, CDS/ISIS has a powerful search language, based on Boolean algebra, which provides a convenient way of creating logical expressions between the search terms. If you need to transfer databases in a heterogenous environment, export/import functions are available that provide an easy way for interchange of data with other systems, including mainframe computers. CDS/ISIS also supports the improvements and modifications of the applications. Database definitions, record structures, input and output formats can easily be changed, if necessary.
After a couple of years' experience with ISIS, we faced only one serious problem. The execution time of certain functions slowed down greatly when the record number of databases exceeded 100,000.

The main services of the system are accessible by an easy to use hierarchical menu; hence anyone, not only professionals, can use it. The programme makers could get information directly if they had terminals in their rooms. Until now, most of the terminals had been located in the workrooms of the Documentation Department, so the researchers had to use the Central Information Services. There are future plans to install remote terminals at the desk of each user.

**Further along the way**

At the end of the eighties we recognised that it is not enough to state only the collecting policy and decision-making mechanisms. We realised that without a strictly ruled and well organising selection procedure, in addition to the work of the Documentation Committee which leaves much outstanding material, the unregistered recordings would overwhelm us. We had to be much more ruthless in our selection procedures and documentation methods. The battle is not yet finished; we still have to fight with the opinions of the old-fashioned people, the "national sound archive" people, and the "it will be good for something" people.

Now that we have arrived at the beginning of the nineties, there are new winds blowing. At the same time, we realised that we have to embed the whole of the documentation work into a higher rule of law and we have to enlarge the sphere of authority of the Archive. We have to give more rights of decision-making and free selection into the hands of a well-educated Archives staff. This means that we have to reappraise the procedures of documentation and archival rules and regulations. We have to redefine the essence of archival work, our goals and aims. Such a time of change allowed us a good chance to change the policies of access and use.

As for other radio stations, our Archive was open only to our programme makers. Sometimes exceptions were made, but only with the license of the president and only for other cultural institutions or educational purposes. This situation is expected to change.

Because of the changes that I have mentioned already, a significant claim was made for publicity. The doors of the Archive were opened. There was a great interest in the truth, and documents which had been closed for years were seen to be suitable to throw light on the past. Because of the circumstances, we pressed our president of that time to release these documents.

Our dreams were fulfilled in the middle of last year when all the documents were released for use, of course, at first for broadcasting purposes respecting copyright and personal rights. The use of these never-used or rarely-used historical documents flourished. Many of our programmes were made from
these documents. The changing political and social events made it possible to go back in history and to show the past with the help of truthful documents.

For example, on 4 May, the mortal remains of Cardinal Mindszenty were reburied according to his last will at Esztergom. In our Archive, the researcher could find valuable documents of his activity from the late forties, the minutes of his unjust incarceration, and the joyful minutes of his release from jail in 1956. And now his path of life will be widened with the dignified moments of his homecoming.

He is not the only person I could mention. Nowadays there are no closed documents in our Archive, and all the documents are free for broadcasting, with the exceptions that I have already mentioned of copyright and personal rights. Only one thing remains to be done with these documents, and that is free marketing. This is a task for the future.
A "RADIO GEOLOGY" OF HUNGARIAN RADIO

János Sebastyén, Hungarian Radio, Budapest

Presented in the Radio Sound Archives Committee Open Session at the IASA Conference, Sopron, 1991

History of the Hungarian Radio archives
Before the war, Hungarian Radio had a rich 78 rpm gramophone collection, but that was the extent of the collection. This consisted of material from the so called "European Repertoire", but we never had rarities from the State, nor rare old Victors, nor special Columbias, nor Scandinavian "His Master's" products on La Voz de Su Amo, nor dances on the Barcelona Printed Odeons.

The first recordings at Radio Budapest were on wax in the mid-thirties, but of course, due to the nature of wax cylinders, there is no record of these materials. At the same time they recorded short interviews on decelith-sheets of which several survive, but if there was a two-sided item, only one of them remained, so we have only beginnings or endings of the recordings. That happened with a few lacquers, and another dozen or so survived in bad shape, but the deceliths, as soft, raw material, are still in good shape. However, the researcher must become a master of "fragmentology", or a "geologist" (who puts brief minutes or seconds together) in order to reconstruct broadcasting history in Hungary. I understand that this is a common situation in European archives. I have very little information on overseas collections, and I know that there is absolutely no music in the old collections except for Danmarks Radio, but that is another, and very special, story.

Music was recorded but edited after the broadcast date, or after several repeat dates on wax. The Budapest studio began to preserve music, recitals, and opera performances after 1941, when they got a Phillips Miller recording apparatus from Germany. They recorded a complete set of Mozart piano concertos played and conducted by Ernst von Dohnányi and many other valuable musical items. Before the Soviet troops arrived at the end of 1944, the studio got hold of a stone chamber in the tunnel under the Royal Castle (near the Chaine Bridge over the Danube), and they put all of the Phillips Miller films with the recording equipment in this safe fortress. The tunnel collapsed, and Mozart died under the stones. The studio building survived with the 78s, but much was trampled down by the unmusical soldiers of the Red Army. Three years later, much was destroyed by the crazy, short-sighted musical and radio employees who held to the slogan "They are products of the Imperialists" or "The music is against the New Society!"

However, the "Broadcast Geologist" found a valuable source with amateur recordists, who recorded much for posterity. They did not do this in a conscious way—rather, they did this in order to replace the importation of the gelatine or
decilith sheets which provided the basis for gramophone recordings. An excellent engineer, István Makai, designed a simple and clever system for replacing these sheets. He had his own private studio and very modern, double recording equipment, so he went to hospitals and asked for old x-ray sheets. He was given a large number of these and prepared a form of recording on them—mostly a 25 cm size, but sometimes a 30 cm size—and he cut recordings from these from radio programmes. Many other people began using this x-ray system, mainly, these three types of amateurs:

1. Those who recorded songs and short musical items from the radio in order to replace commercial records

2. Those who recorded news, theatrical performances, and fragments of interviews

3. Those who recorded important political events or fragments of events or important news; in other words, those who recorded documentary material

This recording happened in the last years of WW II, and the shock of the events caused a certain fear in peoples' minds. They were afraid that the Red Army would accuse them of espionage if they found the recordings or radio equipment, or they were afraid that they would be accused by the notorious Secret Police to be keeping documents from the so-called terrible "anti-years", and so forth. The result of this fear was that they burned their sheets or hid their records in the garret. Later, the recordists died, and widows, daughters, and sons did not understand the importance of dirty x-rays or other sheets; therefore much broadcasting history went into the garbage.

Some courageous amateurs saved their collections, but they didn't want to publish them. Ing. Miklós Szabó, an excellent researcher, found some of these in the early 1970s, but there was another problem—the quality of the sheets. They needed special handling and moisture to keep them from drying out; also, the owners wanted to make some money out of the material. The former directors of the Archive had no interest in keeping all records of the past, so they set a certain payment based upon each minute of material, selecting which material would be preserved. They did not appropriate the material, so it is still owned by the families of the collectors. Other collections disappeared due to family conflicts, divorces, and so on. The only collection to survive is that of István Makai's x-ray collection. After the death of her husband in 1972, the widow started to put all of the sheets in the garbage, but one morning a neighbor, who was an actor, stopped her and called me. I took the whole package home. Mrs. Makai got a monthly small honorarium, and I programmed ten minutes a month of "rarities" in my feature programme. This provided not only a revelation of the so-called "wonderful years of radio", but it guided me in recent radio research.
My second revelation came at the Bartók Centenary year. We had information that there was a paper box package with music and literary record sheets in the Manuscript collection of the National Museum, which had been closed for thirty years. The background to this collection has a cultural and historical value. One of Hungary's most well-known poets, Mihály Babits and his wife, Sophie Török, who is also a fine poet, adored Bartók's music and had a warm friendship with the composer. In 1939, Sophie asked István Makai to record all material concerning Bartók's music—his own performances or those of his interpreters—from broadcast programmes, thus starting this collection. Makai's wife recorded in his place when he was sent to the Eastern Front during the war. Then Bartók left Hungary for the United States and died there after the war. Times changed, and the Cold War began. Babits died during the war, and his widow became anxious about her husband's spiritual legacy. It was possible that the Communist government would judge this collection as super-bourgeois literary art. Thank God that never happened, but the widow wanted to ensure the safety of the collection. She put the entire manuscript collection along with the recording sheets into the care of the National Museum. Music researchers and performers asked to have access to the recordings in order to save the legacy of Bartók's performances, but the curators did not understand the importance of the collection. Such collections were opened if somehow a political crime had been connected with them, but it was not seen as a crime to withhold international cultural values! When the time came that the shaky and aged curatorial administration felt free to release the material, many of the sheets holding the recordings of the fine piano playing of Bartók were reduced to powder. Many others were spoiled by unknown people using bad playback needles.

One of the chief engineers of the Technical Department of Hungarian Radio, Gyula Horvách, started the work of making magnetic tape copies from the sheets. Dora Antal, of Hungaroton, assisted the copying project by following the scores in order to make sure that nothing was missed. This entire situation came about as a consequence of politics and certain insensibilities. A year later, when the Bartok Year was being celebrated, Hungaroton got the license to publish the recordings. Pal Sztano, the audio restoration expert at the Academy of Science, did a second filtering. When the set was published, it received the diploma of the Academie Charles Cross. This is a special story which demonstrates the sort of history of our archive.

Some years ago, Miklós Szabó found some old x-ray sheets from here and there, but these are only poor drops—we have never got the rain—a golden record sheet rain from the past. Sometimes I have a dream. I open the door and find a big box of a hundred old amateur sheets. However, this will never happen. It is too late. Perhaps the recordings have disintegrated or the excellent amateurs have died.

After 1945, radio stations from former war territory got the big collection of American V-disc concerts from the Royal Albert Hall recorded by the BBC, which
were all on 40 cm wide 33 rpm hard lacquer discs. Now these all belong to another archive period—the pre-war period. In 1947, Pyral came back and it was possible again to record talks, interviews and music. Recitals and public concerts, such as the Klemperer State Opera series, were recorded on 40 cm Pyral discs. In the 1950s, a danger arose for them. No aluminium was available for the tape hubs. Also, the Magnetophone was introduced to Hungary. The country's borders were closed, and no new equipment was ordered. This was Cold War with Cold War solutions. The archive was ordered to boil the Pyral lacquers in order to remove the lacquer, and to cut tape hubs from the remaining metal. This created another tragedy for many conductors, soloists and excellent musical events. We owe thanks to the Head of the Archive during the 1950s and early 1960s, Ferenc Latorcay, who (although he was not a musician) had a certain regard for cultural values and sometimes did not fill the disposal orders. In the early 1970s, very slowly, we began the modern archive, guided by modern thinking.

Other European radio archives and their holdings

My own specialty is the pre-War time, and so I turned to other European archives, at first, by chance. I played a harpsichord recital at Stockholm's Radiohuset, and I asked to see the card catalogue. I really had no hopes, but I was very surprised to find full boxes of cards going back to 1931, the year of my birth. I found 60 for 1931, 100 from 1932, 150 from 1933, and 180-200 per year for later years. Most of this was news and reports, and monthly magazines, but there were many fragments of music also. This was because there is a great problem with music copyright in Europe, except in Italy. If more than fragments were copied, there is a question of publishers' rights. However, a researcher in this archive feels as though he has entered a gold mine. I felt this as I found complete programmes from Hungary which allowed me to restore material to the air waves from 40 to 50 years ago. I found such gems as a complete 40 minute operatic recital from 1938, reports by Sven Jerring from the Berlin Olympic Games, Annie Fisher performing the Second Liszt Concerto with Atterberg as conductor, and the Stockholm Symphony conducted by Hungarian-born Carl von Garaguly who was with the Goteborg Orchestra at the same time that my father was solo cellist there. It was a joy to see the names of the famous radio pioneers, such as Julius Raabe or Nathaniel Broman. Of course, in Sweden there was no war, and they felt it was important to keep not only musical but political events, even if they are fragments. If I want to construct a mosaic of broadcasting history, in our collections we have "seconds" and the Swedish colleagues have "minutes". That is a big difference, and they have everything in an authentic form with announcements and all details. Dramatic moments such as the emergency speech of Haile Selassie from Ethiopia via short wave or a conversation with Sven Hedin from Berlin, or the many Christmas songs and New Year's bells, and last but not least, Tennyson's New Year's clock "Ring the bells" with the unforgettable Anders de Wahl.

A technical reason was responsible for providing me with riches that I did not ask for. Some years ago, we asked for some fragments from the Stockholm
archives, but technically it was easier to send us complete recordings. So I received a complete Act from La Bohème from the Stockholm Royal Opera House and a complete two and a half hour speech, instead of the requested three minutes, by Adolf Hitler. I have so many recordings now from Stockholm that I could do a programming job for three full days from morning to late night with the Swedish Radio history.

I use this material also in the form of details. For example, the former Swedish ambassador in Budapest, Ragnar Dromberg, wanted, in his youth, to be a radio announcer, and his idol was Sven Jerring. He listened to the radio all the time. I did a completely impromptu interview with him using Sveriges Radio tapes for inspiration. After hearing them for only 20 seconds, he identified all the voices, all the names, and all the details together with a short story about the event. It was a very useful hour for me, for Hungarian listeners, and a very happy one for Ambassador Dromberg, enabling him to re-visit his youth.

Of course, certain cards pointed me in the direction of Denmark and Norway. At my first visit to Sweden, I examined many hundreds of cards up until 1935, then I returned to finish the epic with 1945, and I returned again to see the new order and to find more in the last year. After my first visit, in 1977, I tried to find material from Copenhagen. There was a real richness of musical fragments from 1932-34 that had been collected and arranged into a programme series of twenty-five parts by Hans Hansen on the occasion of the half century Jubilee of broadcasting. He introduced me to the gentleman who made this remarkable series, Frederik Heegard, who, unfortunately, died two years later, in 1979. He had imported a double turntable and a disc-cutting lathe, for experimental reasons, from Germany. Heegard was not only an engineer of Danmarks Radio, but he was a good organist who enjoyed music. Thus, he experimented with recording good music from the live broadcasts of Tosdags Concerts held at the famous Staerekassen Hall. In three years, Heegard recorded hundreds of 30 cm wide sheets of which 200 or so contain classical fragments of the playing of Wanda Landowska to Adolf Busch, from Horowitz to Cassado, and a few recitals by world famous singers. Heegard's job was officially supported by the Head of Operations, Emil Holm, a former famous singer at the Imperial Württemberg Opera in Stuttgart, and he was allowed to build an archive from his material. Unfortunately, in 1934, a soprano heard Heegard playing one of her arias for his pleasure, and raised a scandal about his activities. Holm ordered him to stop recording because of copyright and contract problems. Heegard started again in 1968, and that provided a happy ending for the collection. The second happy ending came in 1983 when Jesper Buhl, owner of the recording company Danacord, got a license from Danmarks Radio to publish this rare collection as an album of nine records.

The Danish archives has its specialties, but it is a pity that after Heegard's experiments, there are no more music documents in this archive—not even fragments. There are great riches of political materials, forming a real gold mine.
for politicians and journalists. There are important voices, amongst them the announcers, but especially King Christian, various Ministerial declarations, details from the drama of 9 April 1940 with the occupation of the Nazis and the takeover of Copenhagen, and so forth. All cards from 1977 are now part of the data bank. More and more fragments are coming in from private individuals, such as a complete series of the news transmitted to Denmark from the BBC three times a day from the end of 1943 to the end of the war. This collection also contains some news about the war in Hungary. You can find the complete events of the dramatic days of the Liberation narrated by Axel Dahlerup and Gunnar Hansen. Sven Jerring came from Stockholm on 5 May 1945 to broadcast the glorious events, and Gunnar Helén reported from Kungsgatan on the 7th at the re-opening of the free Parliament, including the speech by Christian X in Amalienborg on the 9th.

There is co-operation amongst the European archives to get complete sound "pictures" of what happened during important events in the history of Europe. I regret that there is no such co-operation with the United States in assembling these types of materials. Their interest seems to be in the areas of "When Radio was King" or "Radio Shows," and other recordings held by private collectors.

One can find the same types of riches in the Oslo archives, both local and abroad. The Norwegian archival picture of the war time is similar to that of the Danish, with the difference of the important Reichsrundfunk station in Oslo. A new military archive was formed, and the Norwegians were forced to broadcast the speeches of the Nazi Governor, Terboven, to transmit full length the speeches of Vidkun Quisling, and to transmit all Third Reich ceremonies, such as the celebration of Hitler's 52nd birthday from his luxurious train travelling somewhere in the Balkans. This latter two-hour transmission is an example of the high quality and precision of German Radio during wartime, bringing the ceremony from a forest to everywhere in Germany and occupied Europe. The Norwegian Broadcasting reporters often travelled to Berlin, where they reported about film and theatre, and they interviewed famous artists, thus giving us a picture of that time. Also, we can hear all the supporting and wise words for the Norwegians from Upton Sinclair, Albert Einstein, President Roosevelt, King Haakon, and Crown Prince Olaf. They hold very few music fragments except for some parts of concerts from the early 1930s.

The Yleisradio Archive in Helsinki has a very old, heavily-used catalogue in two big volumes, where one can find all rare 78 rpm recordings published in Finland with local composers, songs, and light music. There is also a rich collection of history with many items from Finland's big neighbor, including details of the Finno-Soviet War, cultural events, and nice songs. From 1938 there are two complete programmes with the title "One Evening in Budapest" which present us with voices we have never heard before. The languages of this collection are partly Swedish and partly Finnish—very Scandinavian, but with much regional interest in politics and melodies. As with the other collections, there is very little
music, and not one recorded second of the voice of Sibelius or other prominent Finnish composers.

If one wants to find a real music collection, one should visit the Central Archive of the Netherlands in Hilversum. It is really extraordinary to see lists with the complete concerts, orchestral studio performances, Concertgebouw productions, studio recordings, songs, piano recitals, and names like the Hungarian-born Carl Flesch, Agi Jámbor, or the big names of the Golden Age of piano virtuosi like Frederic Lamond. There is a big problem with double copyright, with the rights of the orchestras and artists and the rights with the different radio companies throughout Holland. If one wants something from the Netherlands, one must await proper clearances and that takes time. I do not have patience when I ask for a three-minute fragment. However, the menu is admirable, if not the chance to partake of the meal! The other part of the Archive is also a gold mine, giving events from the former Dutch colonies, internal politics, and a complete turn after the German Occupation, when there remains some German-oriented materials along with music. My biggest discovery was an hour's worth of recording from the 1938 Eucharistic Congress in Budapest.

It was a strange operation to recover a part of our own history from another country that had also suffered an Occupation perhaps even more severe and longer than ours during the war. I heard that members of the Dutch Radio Archives in Hilversum packed up the records on the first days of the war and took them to their various homes, storing them in their basements. That is why all of the documentation survived. I took down all of the details of my selection with the exact Archive numbers, but two years ago when we wanted some short items, we received a letter demanding to know how Mr. Sebestyén knew all of the dates and numbers. We assured them that I did not climb through the window, but that I was shown officially the material by their employees. This situation makes me grateful for my Scandinavian colleagues who are most willing to send me all that I request by the earliest post.

In France I was not able to locate a complete list of materials due to decentralisation. I did find some valuable voices from the past, including Renoir and Cortot, but no music before 1945. A series of admirable concerts from September, 1945 on Philip Miller falls just outside the dates of my project. If someone wants recordings of the events in France, both from the Occupied and the Vichy regions, and overseas material from Brazzaville to Dakar, they only need to buy the collection of fourteen records published by SERP, which is the publishing house of M. Le Pen. This extraordinary collection has a combination of songs of the Epoque and world history from the USA and Japan, collaborateurs and the Maquis. If one then goes to the Champs Elysée Record Shop and buys albums of chansons recorded by Pathé, one would have a small but complete personal archive from the era.
When I visited Italy in 1974, I did not get much information from the archive, but years later I got what I wanted on the streets of Milan. Each Giornaliere Butique news stand has a monthly publication put out by Fabbri Editori, *Le Voci della Storia*, which is an excellent collection of events both in Italy and internationally with translations, photographs, and other features. From 1935 to 1946, the Italians published *Quelle Anno del Nascita*, (The Year of Birth), which consisted of a one hour montage on cassette narrated by two actors with snippets of other voices and music.

In Switzerland there is absolute decentralisation, but the material is rich and interesting. The Swiss published some sound collections on the occasion of the radio Jubilee year. The Berne archive is very Swiss in content, and is very good. It contains the important declaration of General Guisan, some reports about wartime life in a small country surrounded by enemy forces, some military music, Swiss political items, and some music by Swiss composers.

Earlier, I received information about many musical items in the Zürich archives. I also found a wonderful fifty-minute speech by Albert Schweitzer on the Goethe Festival, a violin concerto played by Bartók's friend, Stefy Geyer, and orchestral rehearsals by Felix Weingartner. After 1946 came recordings by Philip Miller of musical programmes, including music by Zoltán Kodály, featuring Ede Zathurecky as soloist, and others.

The French part of Switzerland has a very different collection. I found a four minute recording of Paderewsky's farewell speech in 1940, the visit of Winston Churchill to the Lac Léman coast near Lausanne in 1946, and some rehearsals conducted by Ernest Ansermet. Even though I go to Switzerland three or four times a year, I never seem to have enough time, at least six or seven hours, to do a proper search through the archives there.

There are two comments that I would like to make about specific difficulties in research. First of all, I have noticed that when catalogues are transferred to terminals, there is no proper mention of the dates of music items, which you can usually find in a card catalogue. I think this is a big mistake because music is a part of history, and it must be included in a programme constructed around an historical period. It is true that locating the date of commercial recordings and studio recordings may be difficult to do, but it can be done with careful searching and at least a close date may be determined.

My second remark concerns the rights, such as is the case with our own Hungarian recording label, Radioton. There are special requests for payment for the Radio Orchestra, and as with other orchestras, a high fee is paid, based upon the members of the orchestra and the retired members. Because of these fees, Hungaroton stopped its publication of the Klemperer series, and Radioton has no money to publish the early radio concerts from the period 1948-1950, from the 40 cm lacquer discs. I spoke privately with the manager of the orchestra who told me
that if the subject were a very old recording, then it is possible to negotiate a lower fee for the orchestra. I feel that it is very important to publish past concerts in order to enhance the reputation of Hungarian Radio. Perhaps money is more important; I do not know, but I am depressed when I hear about such financial problems. Perhaps the IASA conference will speak about the conflict between the need to publish historic material and the financial constraints, or there will be a comment upon which items should be free to obtain or to make some remarks about the restrictions upon music material.

Back to the Archive visits—when I visited the BBC, I located some huge albums, documented on databases, which were mostly British recordings from all around the world. This material is not available for us through the "free" Programme Exchange.

I found a few items in Brussels; I am sure that they have more of interest to me, but I was guided to the wrong channels of information.

Unfortunately, I did not receive any information from Lisbon. I spent a long time there with concert activity, and never had time to see the archive in my own time. I do recall, from the commercial label published by the International Piano Library in New York, that there was a pupil of Liszt from Portugal, José Viana da Mota, who performed with a Lisbon orchestra in 1948. From this, I suppose that they would have local material with some international interest.

When I visited Madrid two years ago, several of my colleagues consulted their terminals for material of my interest. They had a small group of pre-war documents, but only one local single recording from Madrid. They said that everything was destroyed after the Revolution. I found no music there, but one of the former Spanish Ambassadors in Budapest sent me a tape, given to him by a friend, that had some interesting recordings. I am sure that somewhere there must be many more, but where are the voices of de Falla, Granados, or Isaac Albeniz?

In Germany, the archive in Frankfurt provides a different world which requires much time to examine. The former GDR was closed to people who wanted to see old documents. If you persisted, you were identified as a devil who wanted to raise the ghosts of the past, especially the same in Prague. You would never get an answer to any question. Only once we did get an answer to a query from our Deputy President, but they refused to deal with it because it came from someone from the "Anti-World." One of these people was Jan Masaryk. Instead of his voice, we found his piano music! He was recorded on the Pearl label accompanying the Lidice song, sung by Jurmila Novotna, in the USA in 1943.

The situation was not very fruitful for me in other Eastern European countries. In Warsaw, I visited the archives for three hours and found only a few items of interest. Unfortunately, I was not able to enter the Moscow Goszudartsvennoje
Radio Archive, but I am certain that they have a large collection of music, especially in their Film Archive recorded on film sound tracks, because they published some operatic and instrumental recordings from the years 1939-1941 which were drawn from their own materials and not from other European recordings. There was no hope of finding anything in Sofia. In the Bucharest Archives, there should be some Enescu recitals because they recently published one.

I wanted to share my experiences because I do not think that there is much public information available about the holdings of many European radio archives. There is no international catalogue, but computer systems may provide the possibility of creating a Union catalogue that lists the most important items from national radio archives.

Also, we in Hungary have been planning to form a national archive, but all efforts to bring this about collapsed after the first meeting due to different meanings and different company interests.

I have wanted to publish a compilation of the most interesting historical and broadcasting items from Hungary. This has been done in Stockholm, Copenhagen, Switzerland, by the BBC, and in Australia, but this was done only once. Is it possible that there is no more interest in this subject? Only through such publications is it possible to provide young people with such experiences as documented by the radio of the times and to give older people the chance to relive their youth through recorded sound. The whole world is full of compact discs, cassettes, and records, and shops for recordings line the streets, but the noble idea of preserving our audio heritage and guarding it for our children is missing from these recordings. I urge IASA members to think about that today, tomorrow, and all throughout the future.
THE ARCHIVES OF HUNGARIAN TELEVISION

Anikó Jósza, Hungarian Television, Budapest

Presented in the session on Audiovisual Archives in Hungary I at the IASA Conference, Sopron, 1991

Hungarian Television started transmissions in 1957 on a regular basis. The Archives were set up in 1960 with the aim of collecting footage produced and presented by Hungarian Television. The systematization and conservation of the films started off with none of the fixed conditions available which are considered basic for the preservation of film. I regret to say that the necessary safekeeping conditions are still lacking, which, as a result requires far more strenuous efforts to be taken for the conservation of our material. Special care should be taken of single-copy films.

Television Archives are supposed to be functioning as a resource and information centre. As programme archives for HTV it is designed to act as a protector of an important part of the national cultural heritage. The materials stored here lend themselves for use as independent programs or as parts of others. By preserving the collected artistic, political and public service footage the Archives have to be made available for research and use not only by TV staff but by other institutions engaged in cinematography.

The Archives collect first and foremost the programmes made by HTV. We have 66,000 programmes on 150,000 reels of film and 24,000 videotapes. The ones on film are traditionally catalogued, while the ones on tape are recorded on computerized files.

The programmes are retrievable according to their titles, themes, makers, names on the credit list, etc. The period of preservation is specified by the departments or producer's offices. However, once in the Archives, the programmes will never be destroyed.

TV news has its own Archives necessary for daily use.

For want of strict regulations the departments have set up their own private archives, too. We have started recovering these items recently.

The increase in air-time and financial ills of HTV have been putting more and more burdens on the HTV Archives. More and more Archive material is being used, so we have to take special care so as to preserve it in good condition.
Archives in general, and HTV Archives in particular, should become more and more open institutions. Archival policies of various institutions have got to be harmonized without the latter neglecting their specific obligations.

The terms of cooperation are still to be ironed out.

Editor's note:

Anikó Józsa kindly provided us with English and German versions of her paper. The following page presents her German text in full.
Kurzer Bericht
über das Archive des Ungarischen Fernsehens


Das Archiv bewahrt vor allem die vom Fernsehen selbst hergestellten Programme auf. Es besitzt 66.000 Programme auf 150.00 Spulen und 24.000 Videobändern. Die in Form von Filmmstreifen aufbewahrten Programme sind in herkömmlicher Weise katalogisiert, die Videoaufnahmen nach elektronischer Datenverarbeitung registriert. Sie können nach Thema, Schöpfer, Darsteller, Mitarbeiter, usw. ermittelt werden. Die Aufbewahrungsduauer der Programme wird vom Hersteller, bzw. der Redaktion od. dem Büro bestimmt, aber die archivierten Materialien werden in der praxis nicht ausgemustert.


NOTES ON THE WORK OF SOUND RECORDINGS IN THE ARCHIVES OF SLOVAK RADIO

Frantisek Horvai, Slovak Radio, Bratislava


The archival service at Radio Bratislava has been functioning since 1928. The present Archive, consisting of sections of pre-archival and archival care, was established in 1971. Within the structure of archives in the Slovak Republic, the Radio Archive is classed as the archives of an institution of special significance. Within the internal organisation of Slovak Radio, the Archive is part of the chief editing department of programmes. Our Archive methodically controls the activity of the records centres of the regional and national studios of Slovak Radio in Banská Bystrica, Košice and Prešov. The structure of the organisation is divided into the department of written documents, including the records centre, the records centre of broadcast texts and the photo laboratory, and the department of sound records, with its own technical section. At present, the Radio is considering creating a unified automated information system. This would result in the coordination of related departments; sound archives, record library, library, edited documents, catalogue of music recordings, library of music scores, and archives of sound effects. The staff of the archives consist of ten people, five of whom are university graduates.

The main purpose of the Archives of Slovak Radio is to store all printed documents of administration (records, texts of broadcasts, posters, music scores, leaflets, etc.), sound documents (both spoken word and music), and pictorial materials of lasting historical documentary and artistic value and to make them available for radio broadcasting, historical study, and other purposes. Because of the character of the Radio, the main emphasis of the Archives is upon sound recordings.

The choice of which sound recordings to retain in the Archives is made on the basis of the requirements of the department of sound recordings and the needs of the various editing departments of the organisation. A guide to selection is provided by a destruction schedule and the register that determines which sound recordings and in what periods should be preserved for permanent storage. The most important criteria for retention are historical documentation value and artistic value of ordinary recordings, and special selection procedures are based upon these. We realise the importance of selection activity because the sound recording with regard to the important position of the radio and its influence upon the life around it may be characterised as a primary historical source. The artistic word and music take a special place in the selection procedures; because they both reflect various influences and comprehensive characteristics of their
period of origin, they are not only considered to be artefacts but are full-valued
sound recordings. The other sources we use for our collections are foreign radio
broadcasts and edited materials. The voices of important personages and oral
history materials are kept in the present collections.

Keeping in mind the criteria cited, the Archives have obtained the voices of local
and foreign personalities of social, political, economic, and cultural life, for
example, Edison, Francis Joseph I, Kossuth, Tomáš Garrigue Masaryk, Hitler,
Goebbels, Churchill, Stalin, Hodža, Breznev, Gorbachev, Bush, Mitterrand,
Dubcek, Havel or Zátopek, Plánička, Bubka, Thomas Mann, Tolstoy, Čapek,
Smrek, Zrzavy, Benka, Fulla, Bazovsky, Mucha, Kodály, Suk, Cikker or Gagarin;
also live broadcasts and reports from various important local and foreign events,
for example, for Czechoslovakia, important Munich events in 1938, World War
II, February 1948, August 1968 or November 1989. Other material of local interest
consists of valuable political and educational programmes, radio sequences and
plays, for example, an interesting radio broadcast play by Jozek Ciger-Hronský,
"The Postman of Ratková", from the year 1937. The list continues with excellent
recordings of folklore, classical, and popular music or jazz interpreted by famous
conductors and performers such as the conductors Talich, Rajter, or recordings of
authentic Slovak folklore before World War I, etc. With the exception of
recordings made before radio, material can be found from 1926, which is the date
of the beginning of radio broadcasting in Slovakia. There are recordings from
1937 and even more since the beginning of the sixties, and many since 1971. As a
whole, our Archive contains about 11,200 tapes with about 500,000 minutes of
sound recordings. In 1990, we added 1180 units of material to our Archive.

Sound recordings are accessible to users by name, title, and subject catalogues that
can be interlinked on-line. We use the database system CDS/ISIS. A database is
created within this system from records divided into fields which are, in turn,
divided into the different data. A record length may be up to 20 pages including
an abstract, numeric, and alphabetic signs. The system ISIS enables us to retrieve
information according to the different data and to create various output reports.
The main advantage of the system is the processing of text information and its
ability to retrieve any information within the recording respective of the
database. Often it is difficult to identify recordings from an earlier era because
there are problems with missing data. We do not know whether the material is
whole or edited. We try to find out the answers to our questions by detailed
researching of the context of the contents, by the help of personal observers, by
studying the programme magazines or by searching in written archival
documents. Even technology can help us in many ways, for example, the method
of the German engineer, Heinz Schütz, by which every editing process can be
identified. The use of classical archival methods combined with new technology
offers us wide possibilities for broadening information on sources. When sound
recordings are processed, emphasis is paid to the word by word transcription to
written form that shortens the time necessary for source research from hours to
minutes.
The sound recordings are vital to the development of radio programmes. That is why we try to create special finding aids in the areas of publication (editions of volumes of catalogues of the people and literature in the sound recordings) and in methodology (organising seminars for editors about the use of our sound recordings). Approximately 800 sound recordings are used per year. Their uses include television, broadcasting, film, and audio background to various exhibitions. The professional radio archivist should be a universal personality, one who has mastered not only cataloguing rules, archival history, or information science, but also politics, journalism, technology, fine arts, history, and so forth.

In the sphere of preservation, we have replayed all the sound recordings on early recording media, such as wax cylinders, soft gelatine foils, decelith, tapes with celluloid bases, onto quality tapes with a polyester base. Because our equipment is limited, we have restored them only by filtering. The tapes are recorded at a speed of 19 cm/sec. We are considering the change from an analogue system to digital cassettes, but there is some anxiety about sound dropout. The preservation of sound recordings is expensive, let alone the expense of digital restoration. We think the problem could be solved by a cooperative purchase of equipment by a group of radio stations. Then it would be possible to determine the priorities and set a quota for the amount of processing to be done by each participant.

Plato once said, “The written word is only a shadow of the spoken.” Schiller added later, “Through the ear there is the way to the heart.” In order to enrich our culture by better knowledge of the culture of others through sound recordings, we are very much interested in cooperating with IASA and all other sound archives.
THE SOUTH AFRICAN BROADCASTING CORPORATION

Leon Carl Pieter Endemann, South African Broadcasting Corporation, Johannesburg

Presented in the Radio Sound Archives Committee Working Session at the IASA Conference, Sopron, 1991

It is a great honour and privilege to be able to inform you about the activities and the collections of the Sound Archives of the South African Broadcasting Corporation.

Apart from the four TV channels, the South African Broadcasting Corporation consists of twenty-three radio stations of which twelve are Public Broadcasting Services catering for the different indigenous language and cultural groups. These Radio stations are also the main sources of material and the clients of the Sound Archives. The income of the SABC is obtained from advertising and sponsorship, licence fees as well as programme marketing. Although the SABC celebrated its fiftieth birthday in 1986, the Sound Archives was only founded in 1964 as a part of the Audio Libraries section. Twenty years later it was established as a separate entity within the Department of Radio Production Services, and I was appointed its first Manager.

The diversity of the South African society is also reflected in the structure of the Sound Archives of the SABC. Twelve Archivists have been appointed, each a specialist in his or her own field. Since the beginning of 1987 the Sound Archives has formed part of the Directorate of Public Broadcasting Services. At present the possibility of amalgamating this section with the Reference Library, Music Library, Sound FX Library, Tape Library and Record Library to establish a Media Centre is being investigated.

The oldest material dates back to the turn of the century and is preserved on acetate 78 rpm gramophone records of which some have been reproduced on 1/4 inch open reel magnetic tape, because of the inferior quality and rapid deterioration of the original. Open reel magnetic tape was introduced around 1956, although only a few programmes were actually kept at that time. The majority of archive material dates from 1964 and contains actuality and news items, interviews, speeches, feature programmes, magazine programmes, dramas, serials, classical and light music, sport highlights, oral histories, tributes, nature and environmental sounds and entertainment programmes.

At present gramophone records, open reel magnetic tapes and cassettes are used as mediums of storage. However, the feasibility of storage on compact disc and digital cassette is being investigated. The material is stored on open steel shelves at room temperature, that is 21° Celsius.
Approximately forty thousand hours of audio material that is mostly on 7 inch open reel magnetic tapes (except for serious music, feature programmes and dramas which are kept on 10 inch open reels and nature and environmental sounds which are kept on the smaller 5 inch open reels) are stored in this manner. An alternative (shadow) archives has been established through an arrangement with the Government Archives who receive copies of our material to provide a supportive function in the event of the loss or damage of originals or master copies.

A card index system alphabetically and chronologically catalogued according to subject, title, date and tape number is being applied. Since the beginning of 1990 NDM or Natural Document Management has been employed to computerise the catalogue consisting of a quarter of a million cards, enabling the rapid retrieval of information.

Unless otherwise stipulated all sound archive material is available to producers and compilers of the SABC and bona fide researchers. The section Radio Marketing is responsible for the copyright clearing and sale of archive material to the public. No original archive material or master copies are allowed to leave the premises of the Sound Archives; but on request dubbings thereof can be provided.

After broadcast all radio programmes from the Public Broadcasting Services are channelled through the Tape Library to the Sound Archives to be initially evaluated and selected according to a simplified five point rating system. A decisive evaluation can only be reached by listening to the selected material. Only items of a purely cultural and historical value are being kept. Therefore roughly estimated an average of 10 per cent of all broadcast material in a 24 hour cycle will finally be admitted to the Sound Archives. One of our most prized recordings was made 34 years ago when a few thousand Hungarian refugees arrived in South Africa. It is my pleasure to present to Ms Cséve a copy of the interviews with some of these refugees.
THE CYLINDER COLLECTION OF THE WIENER MÄNNERGESANGVEREIN: A STUDY IN RE-RECORDING

Franz Lechleitner, H. Frank, Phonogrammarchiv, Austrian Academy of Sciences, Vienna

Presented in the Technical Committee Open Session at the IASA Conference, Ottawa, 1990

The Wiener Männergesangverein (Vienna Men's Choral Society) is the oldest Viennese choir and was founded in 1843, only one year after the Vienna Philharmonic Orchestra, under great difficulties, since Metternich's reactionary regime had considered all societies as politically suspect. Johann Strauss wrote the original vocal version of the Blue Danube waltz in 1867 for this choir. The choir had a very close friendship with Johannes Brahms too. The activities of this society were an important factor in the musical life of Vienna during the time up to the first World War. The performances included choral compositions by Bruckner, Liszt, Schubert or Schumann and contemporary compositions of Willhem Kienzl, Josef Marx, Richard Strauss and Felix Weingartner as well. Several concerts were organized by the Wiener Männergesangverein every year starring the choir itself together with famous soloists. There were such names as Gertrude Forstel, Alfred Grünfeld, Maria Jeritza, Erik Schmedes, Felix Senius, Lucie Weidt, to mention only a few. But times were changing. The choir couldn't continue its grand tradition. It still exists but without any influence upon the musical life in Vienna.

First contacts were established with the Phonogrammarchiv by member Dr. John Whitten some years ago. Deeply impressed by the possibilities of our archive he urged his society to hand over its sound collection to us on loan. Such an arrangement was made in spring 1989. The Phonogrammarchiv not only preserves this sound collection but also has the right to use it for scientific purposes. The collection contains 78 rpm recorded wax cylinders. 69 of them are five inch diameter concert cylinders; the rest (these are nine) are standard sized. All cylinders were recorded at a pitch of 100 grooves per inch at a speed ranging from 80 rpm to 160 rpm. The first recordings date from January 1904; the latest from January 1929 covering 25 years' history of this society. The main recording activities took place in the years between 1904 and 1908 as well as 1924 and 1928, with 39 recordings made between 1926 and 1928. The contents of course are
limited to the repertory of the Wiener Männergesangverein itself or on the other hand they simply document the voices of several prominent members. A good deal of that material is only interesting to the Viennese musical milieu. There are, however, recordings of artists of more than local importance who made no commercial recordings at all; artists such as the famous organist Prof. Georg Valker, the musicologist Prof. Carl Lafite and chamber singer Alfred Boruttau, to mention only a few.

In 1993 the Wiener Männergesangverein will celebrate its 150th anniversary. This jubilee offers an outstanding occasion to make accessible these historical sound documents. Fortunately the collection does not only contain the sound documents but also the original Columbia Phonograph together with the recorder, the reproducers, the recording horns, the replay horns and a lot of blanks as well. What was more obvious than examining this recording unit closely? The original Columbia Phonograph equipped with slip-on mandrel for 5 inch diameter concert cylinders was modified for recording purposes by means of removing the replay soundbox as well as the replay horn and mounting an arm suitable for original Edison recorders and reproducers in place of them. The recording horns in use are made of papier-maché and were connected to the recorder with the help of a brass adapter.

All measurements were taken within a small anechoic chamber of 7 cubic meters. Analysis and synthesis were done by computer using the S TOOLS workstation developed by the Acoustic Research Commission of the Austrian Academy of Sciences. At first the reference speaker in the anechoic chamber was equalized to get a flat frequency response up to 8 kHz. Step by step the different parts of the recording chain were measured:

1. The adapter alone.

2. The recording horns in combination with the adapter. The adapter alone and in combination with the recording horns was measured by white noise placing a microphone instead of the recorder.

3. The complete recording chain beginning with the horn and ending with the wax cylinder using a test signal consisting of a sequence of 10 seconds sine wave 1kHz, 10 seconds pause and 20 seconds white noise.
Fig. 1

Fig. 2

32
Each of the four recording horns indicate a similar frequency response. The horns number 1 to 3 are nearly equal concerning the frequency response. The transfer range starts at about 400 Hz. You can't get any useful signal below that frequency. For this reason only one typical horn was selected for further measurements. Test signals as mentioned were recorded at a speed of 160 rpm on 2 inch diameter standard brown wax blanks. The reference speaker however had to be equalized newly eliminating the influence of the demonstrator. Then these wax cylinders were replayed with a modern phonograph, preamplified by means of constant velocity and recorded onto a DAT-cassette. The three cylinders we were testing brought up similar results. I'll explain the results of one of them.
Fig. 6

Frequency Response
Unmodulated Groove
Horn 1
Equalisation: const. velocity

Fig. 7

Frequency Response
White Noise / 86dBA
Horn 1
Equalisation: const. velocity
Comparing the two spectra we see that disturbing noise exists beyond 400 Hz caused by the mechanical drive of the phonograph. The useful frequency range of this recording unit can be expected up to 5 kHz, there is less energy above. The resonance-frequencies of the recording unit are located at the same points of the frequency scale but there are great differences between the two curves. The white noise is not simply added to the noise caused by the recording unit. In this case the two frequency curves would have similar shape. If we assume frequency linearity concerning the recording chain from the horn up to the cutting stylus then the difference in the frequency response is only caused by the wax in connection with the stylus. Picking up the frequency response of the recording unit from the unmodulated grooves we have to stimulate the stylus to reach a recording like white noise. This is caused by infinitely small and high spikes (Dirac pulses) only. Concerning the wax-recording process there are not such ideal conditions. There is another factor we have to take in account caused by the property of the wax at different sound pressure levels to be investigated. Concerning very early acoustic recordings it's our opinion that equalisation by means of unmodulated groove information is a good working method but not an objective one. In the case that the original recording unit is still accessible, equalisation by means of white noise record-analysis should be the first choice.
WHICH TECHNOLOGY SHOULD THE SOUND ARCHIVIST TRUST?

Denis Oudard, Digipress

This article is the full text of a paper which was presented in abbreviated form in the Technical Committee Open Session at the IASA Conference, Sopron, 1991.

Keeping up with technology has now become a daily routine for many of us, but play this game wrong and your bank account will dry up very quickly. In the business of long term archiving, the technological choices that we make today are going to stay with us for ever, literally. The main concern becomes to pick the right technology.

The ideal would be to find an archiving system in which:

- the media is indestructible
- the access system is unique and eternal
- both the above satisfy the vast majority of the archives’ patrons

Since we do not live in an ideal world, we have none of the above.

- most media have very short life expectancies
- access systems are numerous and change constantly
- audiophiles demand sound systems that will transport them to the Royal Albert Hall

I offer a methodology for selecting a sound archiving system, which in view of the above constraints will be as kind as possible to the archivist’s budget, while taking full advantage of the digital technology.

As we identified earlier, we are looking for:

- an access system that will last as long as possible

AND

- a medium that has maximum life expectancy

Selecting the Access System

What characteristics will point today to the system that will last? We know that electronic components last between 5 and 25 years so the quality of the electronics, as long as it is not sub-standard, is not what we want to look at. What we want to look at is what I have come to call 'ROBUSTNESS' of a system.
Robustness of a system, whether it is an archiving system, or a communication system, or any system, can stem from several factors.

The best way to get it is simplicity. It is the case of microforms. No need for a user manual. The magnifying glass will be with us for the rest of humanity, same thing for books. No need for elaborate explanations on how to turn the pages. This access system, the magnifying glass and "opening a book" are simple and therefore robust.

Unfortunately, there is nothing simple in today's sound systems. We need to look at other tell-tales. For complex systems, momentum is the first factor one should look at. The more momentum a product has, the more likely working systems can be found 50, 100 even 200 or more years from today; it is a simple matter of the law of large numbers. Key indicators are:

1. **Number of systems installed.** Consumer based products always have a big advantage as compared with professional equipment. Consumer items can be counted in 100's of millions rather than in thousands. Examples of consumer based products are LP turn-tables, cassette decks and CD players. Examples of professional products are 1/4 inch tape decks, UMATIC 1630 tape decks and WORM drives. Another big advantage of the consumer based products are their prices, as this table shows:

<table>
<thead>
<tr>
<th>MEDIA</th>
<th>AVERAGE COST OF PLAYER</th>
</tr>
</thead>
<tbody>
<tr>
<td>LP</td>
<td>$350</td>
</tr>
<tr>
<td>Cassettes</td>
<td>$350</td>
</tr>
<tr>
<td>Compact Disc</td>
<td>$350</td>
</tr>
<tr>
<td>UMATIC 1630</td>
<td>$30,000</td>
</tr>
<tr>
<td>DAT</td>
<td>$1,200</td>
</tr>
<tr>
<td>1/4&quot; tape deck</td>
<td>$5,000</td>
</tr>
</tbody>
</table>

2. **Number of manufacturers is another key indicator.** Is the particular system "proprietary", with one manufacturer of both the equipment and the media, or are there many manufacturers who all make compatible equipment according to well defined standards? Examples of both these categories are WORM Discs and CD's. The number of manufacturers of medium is also important. By choosing a system that is built by several manufacturers, you are not at the mercy of any one and can forecast the phasing out of a technology. With WORM, for example, the day the manufacturer of your particular type of WORM stops making them, you have less than five years to get your sound off them.
3. **Geographic repartition.** Is the system under review used worldwide or is it limited to certain countries? The larger the spread of the technology, the better. In sound systems, most consumer based products have had worldwide use.

The other key factor is how standardized the technology is. Standardization is important for several reasons.

1. **Standardization promotes momentum.** For different manufacturers to produce compatible systems, they have to have a set of rules to go by. The stricter and the most universal the standard, the better.

<table>
<thead>
<tr>
<th>Proprietary technology</th>
<th>WORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loose standards</td>
<td>IBM PC, UNIX</td>
</tr>
<tr>
<td>Strict standards</td>
<td>CD Red Book</td>
</tr>
</tbody>
</table>

   | Local/Regional standards | PAL, SECAM, NTSC |
   | Universal/Worldwide standards | CD Red Book |

2. **Documentation.** Standards document the mechanism of the access system. Standards are Rosetta Stones. They describe precisely how to access the data (in our case: the sound). A sound engineer can build a CD player from scratch with the Red Book and a good Library. Chances are we will never get the opportunity to read the equivalent of the Red Book for any proprietary formats such as WORM or other exotic tape systems, in a hundred years even less than today, assuming that such documents exist at all!

3. **Standardization brings the cost of systems down.** Standardization encourages widespread use, and widespread use brings economy of scales, which brings the costs and prices down. This in turn further boosts widespread use. All of this contributes to building momentum and making the archivists' dollar go further.

I know of three sound systems that have momentum and are strictly and universally standardized: the LP, the cassette and the CD.

We can now move to the second part of the selection of a system, the medium.

Since we have already narrowed the field to three media, it is very easy to determine that the Compact Disc is a clear choice, particularly when you consider DIGIPRESS' development of the Century Disc. Of course, DIGIPRESS' choice of the CD is no coincidence. Jean Ledieu, the president of DIGIPRESS, had made this analysis long ago. However, even without DIGIPRESS' technology, the CD has many advantages over both the LP and/or the cassette.
• First, it is the most recent technology of the three. While the LP is on a
definite decline, the cassette and the CD are definitely products that are
widely used and manufactured.

• Second, it stores sound in digital form. We know the advantage of digital
storage of sound, particularly when making copies.

• Third, the reading mechanism does not put any strains on the media.

• Fourth, the quality of the sound is better. The bandwidth is in excess of 22
Khz.

And now with the Century Disc, the Compact Disc also has a life expectancy
never heard of before.

I would suggest to you that the Compact Disc system, allied with the Century Disc
technology can become the dormant, but all important part of a sound archive.
One of your colleagues from a large and well-known archive was telling me: "We
can make any technology survive, however, we cannot afford to maintain every
technology ever invented. We will take one system and make it survive, and we
want the corresponding media to last for as long as it is humanly possible. Give
me a 1,000 year media if you can." We cannot stop progress, and I am not
suggesting that you deliver CD's to your patrons when CD's are not what they are
asking for anymore. What I do suggest is that today, compact disc is a technology
we should all be betting on, even without Century Technology. Century
Technology gives the sound archiving community the opportunity to make
compact discs the core of sound archives for many years, and very possibly for
hundreds of years. The Century Disc can become the mass storage medium of
choice. If technology changes, which it seems it will, you only need change the
input and output devices.

This analysis is also valid for the CD-ROM format and the emerging MPEG
compression standard. Based on a very solid logical format, ISO 9660, this
proposed standard will enable the storage of up to 28 hours of sound in stereo
and 56 hours in mono, possibly the ideal solution for archives of radio broadcasts.
ACCESS AND CONSERVATION: THE KEY ELEMENTS IN SOUND ARCHIVING IN THE 21ST CENTURY

Christopher H. Roads, National Sound Archive, London

Presented at the IASA/Nordic Branch meeting, Oslo, January, 1991.

Used with permission.

No medium yet in use as a carrier for sound or vision was designed or intended for archival use. The only qualification that might be made to this statement is that Digipress did rapidly suggest archival use for special quality and specification CDs. Thus all that we do is, in a sense, to adapt, improvise and otherwise scrape the longest life out of the unsuitable.

What we need is an archival medium and one which is suitable for both conservation and access: so that it will last and can be handled, preferably, automatically, as much as may be needed.

If we need it in the developed west how much more does the tropical, third world. We have by clever and expensive expediency been able to hold on to a great deal of our earlier recordings, both sound and vision, even when ninety or more years old, though often with immense loss of colour or quality. They—in the third world—have not. Indeed there never has been a means of audio-visual archiving even passably effective for high temperatures and humidity and low budgets. When they cannot afford insulated buildings, when they cannot afford expensive copying and printing equipment and stock, when they cannot guarantee continuous supply of electricity, and when they cannot resist wiping tapes to reuse them, then audio visual archiving becomes a farce and an illusion. It is an affront to try to introduce expensive and relatively short term conventional archiving into the third world.

What is it that we need to archive and to access? We need to overcome both the shortcomings of the original carrier and the limitations of its packing, documentation and other support. Even if a vinyl record lasts quite well its acid paper sleeve has a very limited life. Heavy use plays havoc with sleeves and labels. What we need is a consolidated, robust and long lasting surrogate at a price that all can afford and which needs no special storage, no form of air conditioning and which can be copied perfectly without any loss of quality whenever desired.

Such finally seems to have arrived in the form of the digital optical disc; at once solving both the needs for conservation and those for access. Whether this is the
only suitable surrogate likely to be identified is an academic question. The crucial fact is that the digital optical disc is with us now; is incredibly attractive, rated against any of the mentioned criteria, and is economically priced.

There will be those who say that the optical disc is nothing new—the Phillips laser vision disc has been around for seventeen years or so—and that it has had a chequered record—indeed Phillips themselves have refused to confirm that it is really archival. And that is the key point. Compared with the new generation, digital, optical disc the Phillips disc is analogue and large. Twelve inch discs pose risks of delamination, and problems in quality control are completely unavoidable with small 5 1/4" discs. The older disc is aluminium coated which can corrode if, for any reason, the coating is exposed to the atmosphere—the new discs are coated with platinum which is entirely free from such risks. The older discs use informational pits so small that they are rather vulnerable, the new are larger and less at risk. So the new discs are new and do offer a totally new dimension.

Indeed the new discs are suited to automatic handling and retrieval through an autochanger or by means of auto warehousing. But best of all they are designed to last. Tests so far conducted at the NSA London in conjunction with the BBC, the BL National Preservation Office and BL R and D Department suggest a life of many centuries could be attained, and that even under the most severe, tropical conditions they still have a life expectancy of many decades—perhaps some centuries. Beyond this it is not much good opting for a disc which, however ideal, is likely not to be available for long. Plasmon’s disc has a supply of sixty years guaranteed by the company, and moreover, the company itself is so structured as to look as free from takeover or extinction as could be devised.

The key to financing the kind of archival system which we need is to ensure that it is soundly based to serve commercial needs. Archival needs can be met only by riding on the back of commercial. Thus if there is a proven commercial need for ‘restored’ sound or vision it makes sense to cater for it. The NSA is seriously considering juxtaposing to the original sound a declicked version and even, possibly, a third which is fully restored to the point where dehissing can be argued to be subjectively applied. Film, too, could be treated analogously. The NSA’s CEDAR system is now well established and offers a very attractive solution to sound restoration needs.

WORM optical discs have been intensively investigated by the NSA and its collaborating commercial companies, for the purposes of setting up a working model of an optical disc system for the future, at MIDEM at Cannes—from where I have just come. One goal was to input sounds, pictures, text, and moving images. But whilst, in a narrow sense, technically, we achieved this we did not do so to the standards required, archivally, for images. Sound at 44.1 kHz was successfully demonstrated. What stymied our efforts was the discovery in the course of setting up the demonstration, that manufacturers’ quoted specifications
for disc drives are thoroughly inaccurate. One drive quoted at 400 kilobytes per second proved to run at 80 and even that which we had to use—so new that it was launched only in November—did not yield 900, as quoted, but only 400. Still, we learnt so much from the project that we expect to reach super VHS standards by October and, hopefully, broadcast standards of PAL plus 44.1 sound by around January or February, 1992.

How we handle data compression is obviously an important issue. With Norway the adopted European home of Michael Barnsley's fractals you are undoubtedly aware of some of the claims. We do not want to adopt processes which put us on a limb nor do we want to employ those which might enhance the risk of data corruption. Obviously we plan to input on to the disc, which become total surrogates for: the original, all dubbing data, all processing data, all cataloging data as well as photos (in the case of sound records) of label, sleeve, critiques and other documentation, flexibly interleaved with the sound. Our advisers which include the BBC believe that we should be able to handle HDTV within 5 years. Images of sufficient detail to cope with newspaper cuttings and small print, to about 6 points are other needs which we will be able to meet much sooner.

In the past audiovisual archiving systems have been developed in the west and often without too much notice of cost whether direct for materials and equipment or indirect as for insulated buildings, staff qualification etc. This time we plan to develop the system, its methodology and all aspects in the third world in parallel with its elaboration in the NSA, London. This way we will know that it will cope with high temperatures, high humidity, salt, sand, electricity cuts etc, etc, and whether it can be afforded.

So doing offers us a real possibility too to developing telecommunication links intercontinentally, disc to disc between archives. Let us take advantage of clonability whether it be internationally or nationally between provincial satellite archives. Cable and Wireless are keen to collaborate and Trinidad is the most likely target country. Optic fibre cables of Cable and Wireless alone will link 62 centres by the end of next year so that the opportunities for document exchange in future will be massive. Dialasound and ultimately Dialavision are clearly in our sights. On the basis of a developed National Discography data base already keeping 46 persons busy full time, inputting, linked to a large Worm optical disc bank of audio visual records ultimately any enquiry world wide could be answered with appropriate material to broadcast quality within seconds or at most a few minutes. Charges would be levied and the record companies and other originators would receive their share of revenues though it is possible to conceive a more limited service coded so as not to breach copyright where rights are paid if and where requested material is actually used.
No claim is being made that such optical disc banks will erode the domain of large gauge film for a very long time though group 4 fax in colour might ultimatively prove the means of dealing with all images short of 70 mm and above. Nevertheless what is proposed and what is now being experimentally assembled, in what amounts to a major feasibility trial, would be totally comprehensive for many a third world country and it could also be a practical route for such states reacquiring from the archives of the west acceptable copies of much earlier material they have lost, as their efforts at conventional film archiving have floundered or died away still born.

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ANGLO-AUSTRALIAN IMPORTING COMPANY,
Opposite G.P.O., SYDNEY, New South Wales.
REVIEWS AND RECENT PUBLICATIONS

REVIEWS


Dimitri Mitropoulos (1896-1960) left a recorded legacy quite unlike most Central European conductors. Rather than being dominated by Beethoven and Brahms and filled out with the great line of Classical and Romantic symphonists, his discography is highlighted by the first Wozzeck (a live concert, but commercially issued immediately), the first Mahler First (as early as 1940), a complete Samuel Barber opera, Vanessa, sung by its creators, the Prokofiev Third Concerto which he played and conducted (a feat which created a sensation in Berlin in 1930), and such an unlikely item as Vaughan Williams' Fourth Symphony. The historical performances issued without authorization only fill out more of the same offbeat repertoire without changing the general impression of an inquiring mind and an unusual musician.

As the outstanding, not to say unique, musician of Greek birth in our century, Mitropoulos is well served by a discography compiled in his native land by an ideal discographer—one who combines an enthusiasm for his subject with a grasp of discographic requirements. The main list is arranged alphabetically by composer, but Appendix C lists the recordings briefly in chronological order; while the 'live' recordings are so designated, this list is otherwise rather bare, requiring a lot of reference to the main list. (Wozzeck is not listed as live, though it is so identified in the main list.) Appendix E is a list of tapes of broadcasts that have not been issued on disc, a useful guide to possible future releases. Appendix D indexes all soloists and ensembles that participated in the recordings.

The work seems to be complete, detailed, accurate, attractively formatted and beautifully typeset. Most LP sleeves are illustrated with the entry. Programs and photos (reproduced in fine detail) are also used to brighten the presentation. The basic language is English, with most extended commentary translated into Greek.

Mitropoulos with the Minneapolis Symphony was an early concert experience of mine in 1946. This folio-sized book, bound in a laminated stiff cover, is a worthy tribute to his memory.

J.F. Weber

Available from APM Press, 502 East 17th Street, Brooklyn, NY 11226, USA.

This is basically an index of 2118 patents issued on the United States of America and filed between 1877 and 1912, patents relating to sound recording. These patents are listed in a twofold manner: First there is a numerical (and thus chronological) listing giving the patent number, a caption of the invention, the file and grant dates, and the patentee(s). Second there is a listing arranged by patentee giving the name of the patentee, the state or country of residence, the file date, the caption of the invention, and the patent number. In order to make such a plain index more pleasing for the ordinary collector, Allen Koenigsberg has added to the core of the book a section with descriptions of "One hundred and one significant patents" not all of which, however, proved significant in the course of the history. These comments show the knowledge of the compiler as they are more than mere descriptions of the patentees' aims. Each comment comes with a reduced facsimile of the original patent drawing which here serves a mainly decorative purpose. There are also introductory essays by the compiler and by Raymond Wile. This publication will certainly become an indispensable reference tool for all research into the early technical history of the phonograph and the gramophone.

Martin Elste


In erster Linie sind in dieser Phonographie die vielen deutschen Rundfunkproduktionen und- Mitschnitte nachgewiesen, daneben aber auch "Industrienonträger", das heisst massen-produzierte kommerzielle Tonträger, sofern sie im Besitz des DRA und der Sendeanstalten der ARD (einschliesslich des RIAS) sind. Damit ist die Phonographie keine eigentliche Diskographie, sondern ein Bestandskatalog des ARD-Verbunds. Und so wie das DRA primär Daten für den Sendeaustausch der Rundfunkanstalten liefert, so folgt die Katalogisierung den internen Gepflogenheiten des DRA, wie sie seit langer Zeit aus dem Hinweisdienst Musik bekannt sind. Das heisst, dass zum einen keine Bestellnummern von kommerziellen Tonträgern angegeben werden, sondern nur die Labels genannt sind, und zum anderen eben nur solche Aufnahmen verzeichnet sind, die in den Archiven der ARD-Sendeanstalten auch tatsächlich vorhanden sind. Obwohl diese Beschränkungen der Katalogisierung durchaus irrelevant für die reine Rundfunkarbeit sind, sind sie bei einer Publikation, die auch ausserhalb des eigentlichen Sendebetriebs auf grosses Interesse stösst, bedauerlich. Die Argumentation, die Archivnummer (von Rundfunkproduktionen) entfalle generell aus datenrechtlichen Gründen mag—so wenig plausibel sie erscheint—für rundfunkinterne Produktionen gelten, für die Bestellnummern von Industrienonträgern ist sie jedoch nicht zutreffend. Dadurch verliert die Phonographie entschieden an Informationswert für denjenigen, der ohnehin auf andere Archive als die der Rundfunkanstalten angewiesen ist.

bereits ergänzungswürdig, sobald der Archivbestand in den Rundfunkanstalten
der Fünf Neuen Länder zentral gemeldet ist?

Martin Elste

Kutsch, Karl-Josef & Leo Riemens: Grosses Sängerlexikon. Ergänzungs-
DM 198.00 (geb.).

Vertrieb: K.G. Saur, München.

Nur vier Jahre nach Erscheinen des zweibändigen Grossen Sängerlexikons bringt
Karl-Josef Kutsch (obwohl sein Mitautor Leo Riemens vor sechs Jahren
verstorben ist, ist dieser noch auf dem Titelblatt angeführt) einen stattlichen,
verlegerisch exzellent gestalteten Ergänzungsband heraus, der auf 1128 Spalten
mehr als 2200 neue Biographien versammelt. Darüber hinaus sind auf fast
ebensovielen Spalten die alten Sängerbiographien ergänzt und—wo notwendig
—korrigiert worden. Damit ist das nun dreibändige Grosses Singerglexikon auf dem
Weltmarkt ohne Konkurrenz, was Aktualität, Informationsfülle—and Preis!—
betrifft.

Kutsch hat nicht nur jene Sänger aufgenommen, die in den letzten Jahren von
sich Reden machten, er hat auch frühere Lücken gefüllt, insbesondere bei
Desiderata innerhalb der Alten-Musik-Szene. Beispielsweise ist Andrea von
Ramm jetzt angemessen gewürdigt.

Der immense Umfang des Werkes ist auch das Ergebnis einer minutiosen
Detailbesessenheit. Freilich stellt sich bei der Fülle der aufgelisteten Einzelheiten
die Frage nach ihrer Notwendigkeit. Viele genannte Auftritte erscheinen
willkürlich ausgewählt und damit letztlich überflüssig. Nur ein Beispiel: Die
Angabe, dass Peter Schreier 1989 "ein grosses Konzert in der Londoner Wigmore
Hall" gegeben habe (Sp. 1779) ist eher uncharakteristisch für Schreiers Karriere
(da die Wigmore Hall Londons traditionelle Debüt-Plattform ist), noch kommt
diesem einen Konzert besondere Bedeutung zu. Solche Engagement-
Auflistungen machen indessen den Grossteil der Biographien aus; eine
zusammenfassende Wertung hätte sicherlich zu einer überlegteren Beschrän-
kung auf das Wesentliche einer Künstlerkarriere geführt.

Wie in den früheren Bänden enthält sich Kutsch einer speziellen Charakter-
isierung der Stimmen (obwohl der Waschzettel dies behauptet). Fakten werden
genannt, allenfalls pauschale, standardisierte Würdigungen vorgenommen,
ohne dabei auf sprachliche Brillanz wertzulegen. Dies ist vertretbar, wenn man
beispielsweise das Riemann Musiklexikon als Vorbild für diese Art lexikalischer
Informationsbeschränkung heranzieht. Allerdings hätte der Lektor solche Sätze
wie "die Partie des Wotan, die allgemein als eine seiner grössten Kreationen galt" (Sp.1329-30—hier ist von einem Sänger, nicht von Wagner die Rede!) und "als Konzert- und Liedersängerin kam sie zu einer grossen Karriere" (Sp.285), Formulierungen, die immer wieder in den Beschreibungen auftauchen, redigieren sollen.

Trotz aller prinzipieller und spezieller Kritik: Durch die Vorlage eines Ergänzungsbandes ist das Sängerlexikon noch unentbehrlicher denn je zuvor geworden, und die Ausdauer seines Verfassers, fast dreissig Jahre lang einem Projekt die Treue zu halten, verdient unser aller Achtung.

Martin Elste

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Available from Robert Moon, 349 Ellington, San Francisco, CA 94112, USA.

This relatively expensive, yet well produced brochure tells the story of Decca's Full Frequency Stereophonic Sound recordings. Michael Gray unfolds the technical history behind the famous FFSS recordings in his introductory article, which is followed by reprints of brief chapters on "Stereo and the modern orchestra" and "Reverberation and microphone placing for stereo recording" both taken from editions of The stereo record guide.

The main body consists of a numerical listing of the 350 records within the numerical series with the prefix SXL (CS respectively) arranged in order of London order numbers with the English Decca equivalents, the mono issue numbers and CD reissue numbers also given. Compositions and artists are briefly listed, yet there is a rating added with numbers ranging from 1 to 10 (de facto, from 5 to 10) judging performance and sound. What follows is a section with a selection of the best recordings (in the opinion of Robert Moon) which are discussed in more or less detailed fashion. Here also recording dates with producers and recording engineers are mentioned. There is also a useful "labelography" with seven label illustrations denoting the different issues as expressed on seven different types of label design.

The brochure is concluded by biographical sketches of eleven main artists in this series and a bibliography. Certainly a useful publication for the collector of historic recordings.

Martin Elste

Das sehr repräsentativ gestaltete Jahrbuch—so sind viele der im zweiten Band angeführten Personen mit einem Passbild-Foto abgebildet—erfüllt als echtes Nachschlagewerk nur begrenzt seinen Zweck; zu viele Firmen und Personen fehlen (noch). Gerade angesichts des hohen Preises ist dies ein schwerwiegendes Manko. Es bleibt abzuwarten, ob der Verlag diese Lücken in den nächsten Auflagen füllen kann.

Martin Elste


These two volumes have been waited for by researchers in piano-rolls, as they fill a vast gap. As the title suggests, the compiler presents a straight-forward listing of piano rolls for all makes of reproducing pianos such as Welte-Mignon and Duo-Art. Sitsky has compiled the data (composer, title of composition, artist’s name, make, and roll-number) of some 18,000 rolls basically from manufacturers’ catalogues. And, obviously, with such a mass of data, no consequent attempt has been made to give additional information for the identification of compositions recorded.

The first volume lists all rolls by composer and work, the second by artist. Each entry contains the complete information available for a given roll, thus one step
in the research always suffices. As a general catalogue, this is a most welcome publication. What we now need are detailed studies which are devoted to the output by one company or one artist, or of one composition.

Martin Elste

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The subject matter of *Ethnic Music on Records* may at first sight appear highly specialized to many readers: a discography of recordings made by immigrants in the USA up to 1942. But the very bulk of the work, over four thousand pages, suggests that the subject has several dimensions. The scope of the material covered ranges from opera to political speeches, and there are surprises for everyone. And as the first large-scale discography produced fully with the aid of a computer, *Ethnic Music* has a methodological interest to all discographers beyond its subject matter.

According to the census of the United States for the year 1940, there were 22 million Americans who spoke languages other than English as their mother tongue. German-Americans alone numbered about five million. Italian, Polish, Spanish, Yiddish and French all had more than a million speakers in the United States, and even Arabic was spoken by 107,420 persons. Most of them were recent immigrants, but a considerable number of these "foreign-speaking persons" (as contemporary usage put it) had been born in the United States.

At the beginning of the century, there was a flourishing immigrant press in the United States. Inevitably, the recording industry also discovered this audience. Beginning in the 1890s (Spottswood dates the first release at 1893), American record companies issued thousands of records aimed at the immigrant market. Some of these were just pressings of recordings originally made by their affiliates abroad: immigrants were happy to find recordings made by famous artists from their homelands in American record stores. But soon American companies also began to record immigrant artists. There were several reasons for this. In many European countries the record market was still relatively undeveloped in the 1910s and 1920s, and there simply were not enough recordings made to satisfy the demand from immigrants hungry for entertainment. In addition, many immigrant communities had their own local artists, and wanted to hear their own favorites on disc.

In the 1920 and 1930s, American record companies labeled recordings made for immigrants "foreign-language records". Today this classification might lead to
misunderstanding, and Richard Spottswood has instead chosen to call his subject matter "ethnic recordings" and define it in a slightly wider sense. It may be useful to quote the author's preface at length:

The aim of this work is to document all production of foreign language records made in the United States and its possessions in its entirety from 1893 to 1942, with the following exceptions:

1. Operatic and other classical recordings marketed to all audiences
2. Language instruction records
3. Humorous material employing ethnic stereotypes which was aimed at the general market (eg, the 'Cohen' series)
4. Hawaiian music, which (despite language differences) functioned primarily as a variety of American popular music
5. Reissues of non-U.S. matrices on U.S. labels
6. Instrumental recordings by record company 'house' bands and orchestras, many of which were issued in the foreign series
7. American Indian recordings of private or institutional origin (...)

However, 'foreign' is construed to include two groups of recordings, Irish and West Indian, that are primarily in English. These recordings, which continue to be of exceptional interest, were treated as foreign-language items by the companies for catalog and distribution purposes (p. xvii).

During the period covered, the possessions of the United States included the Philippines, and there is also a forty-page section on recordings made in the Philippines. The closing date, 1942, is a natural dividing line for any discography concerned with American music. The American Federation of Musicians went on strike on August 1, 1942, and for more than a year, practically no commercial recordings were made in the United States. After recording activity was resumed in 1944, the structure of the recording industry soon changed. Musical fashions were also changing, and post-war popular music had a new sound. Standard discographies of American jazz, blues and popular music all use 1942 as a dividing line. Hopefully, Sottswood or someone else will carry on the work and produce another discography of the numerous 78 rpm ethnic records issued in the United States between 1943 and the mid-fifties.

In an article published in Recorded Sound in 1975, J.F. Weber pointed out that "there are only three types of discography: numerical (treating the producer of the records), artist (treating the source of the sound on the records), and subject (treating the material recorded). "Since the pioneering work of Bauer and Delaunay in the thirties, most discographies have been based on a combination of the latter two principles: the author chooses a subject (such as jazz), and then lists in alphabetical order all artists known to have made recordings within that genre. The recordings of each artist are then presented in chronological order. Spottswood follows this tradition but subdivides his subject further into 41
Any discography which sets out to cover a specific type of music inevitably runs into difficulties. How does one define jazz? How does one define an Italian-American record? The lines drawn by Spottswood are in most cases clear enough, and concur with categories used by the record companies themselves. "Foreign-language records" were usually issued in special numerical series and identified as such on the labels. Both the Italian tenor Enrico Caruso and the Danish tenor Enrico Palmetti made recordings of Canio's aria from "I Pagliacci". Caruso's recording is not found in this work, although it is sung in Italian, because it was aimed at the general public. Recordings by Enrico Palmetti, made in New York and Chicago, were issued in Columbia's "foreign" series for Danish-Americans, and will be found listed here. The opera singers listed in "Ethnic Music" are ethnic in the sense that they were not able to transcend their national or linguistic boundaries. As a consequence, their recorded repertoire usually consisted of patriotic songs, folk song arrangements, and less-known Lieder in their native language. Recordings by internationally known operatic artists have usually already been listed elsewhere. (It should not be understood that this discography is not of interest to students of operatic singing. Among the singers listed here are Metropolitan opera artists Maria Luisa Escobar, Otto Goritz, William Gustavson, Herrmann Weil and Erma Zarska.)

The majority of recordings produced for immigrants and other ethnic groups (in the sense Spottswood uses the term) consist of popular music of various types, sung in about forty different languages: comic and topical songs, sentimental ballads, hymns, waltzes, patriotic pieces, devotional songs. But there is also a considerable amount of traditional folk music, often representing styles which were seldom recorded commercially in Europe: Polish fiddle bands, Italian bagpipes, Serbian gusle players etc.

For each recording included, Spottswood lists matrix number, title composer, artist credit (as given on the record label), participating performers (including the identity of all accompanying musicians where known), recording date, catalogue number of original issue, and numbers of all known reissues.

Very little of this information is usually printed on record labels. How do we know that the recording of "Deutschland über alles" by Die Troubadoren, issued on Puritan 70069, was recorded in Grafton, Wisconsin around October 1930? Very few American record companies have any files on recordings of this type made more than half a century earlier—Victor (today BMG) being the main exception. Much of the information listed is the result of original research by the author, often based on interpolation from comparative materials drawn from jazz and blues discography. There is a brief introductory chapter on "The companies and their ethnic records" in volume 1, but a longer essay on the sources used might...
The five volumes containing the actual listings are in many ways admirable. The layout is clear, the documentation thorough. It is inevitable that there are omissions and small errors in works of this scope, but in my own narrow fields of specialization I constantly had to wonder at the amount of new data provided by the author. The mistakes are usually insignificant, and the omissions are there because in many cases the missing information has probably been lost forever.

The two additional volumes with indexes raise more questions, but I want to emphasize that many of the points I make here go beyond the scope of the work, as defined by its author. It is only because Ethnic Music on Records is such a ground-breaking work that I find it important to discuss the format and the methods used.

All discographies need indexes, although not all have them. Volume six has title and artist indexes, which provide access to all works and performers (including accompanists) listed in the five preceding volumes. There is no composer index, which is understandable in a work concentrating mainly on popular and folk music. However, scattered throughout the five volumes there are hundreds of classical compositions not listed in World Encyclopaedia of Recorded Music and other standard reference works. When this work some day becomes available online, this problem will hopefully be solved.

Volume seven contains record number and matrix number indexes. These indexes are so extensive that this volume is also a numerical discography: it lists a large percentage of the total output of several major American record companies in the 1910s and the 1920s.

The record number index lists all catalogue numbers included in the discography, arranged by record label. For instance, beginning on page 3773 there is a listing of the Columbia 3000-F series. This series was used by Columbia between 1923 and 1952 for Finnish-American records. (For this information, we have to go back to page xxxvi in volume 1). This listing is not only an aid to someone seeking a recording listed in the discography; it is also a guide to Columbia’s activities in field of Finnish-American music.

According to the notes, all recordings issued in this series were Finnish. Listed in the index we find numbers 3000-F to 3009-F, 3011-F to 3115-F, 3117-F to 3142-F and so on. The highest number listed is 3243-F, but above 3180-F there are numerous gaps. What are the missing numbers?

These gaps illustrate a problem typical of discographies focusing on specific types of music. Record 3143-F is not listed, although it is a Finnish comic song, because it was originally recorded in Finland by Columbia’s European affiliate, and thus falls outside the scope of this discography (see point 5 above). Most of the missing numbers in this and the other Columbia "F" series are European recordings. It would have been interesting to have these listed as well, but the inclusion of all
non-American recordings issued in the various "foreign-language" series would practically have doubled the volume of this discography.

3010-F and 3116-F are different cases, as both were recorded in New York. 3010-F has two instrumental dance tunes by an unidentified clarinettist. The record is listed in contemporary Columbia Finnish-American supplements, so Spottswood has obviously omitted it intentionally—probably on the basis of rule 6 above ("instrumental recordings by house bands"). However, a copy of this record has recently been found (after the publication of this work), and the matrix numbers indicate that it is identical with a Polish-American record issued on Columbia 18067-F and listed by Spottswood on page 720.

3116-F is listed on the label as a performance by the Finnish All Star Trio. The matrix numbers reveal that it is actually played by the Andy Sanella Trio, and was also issued in Columbia's popular series as record 1804-0, with song titles in English. No one knows why Columbia thought it would be especially interesting to Finnish-Americans.

One can readily understand the author's reluctance to include obscure instrumental records without clear ethnic identity. But recordings of this type are not likely to be listed by other discographers either: they do not belong to jazz, blues, country music, opera, mainstream popular music, or any other area frequented by researchers. The number of such recordings issued in the various "ethnic" series is not so great that inclusion would have been wholly impractical.

In other cases, numbers are missing because no information is available. For instance, Victor V4103 should be a Finnish-American record, but so far no one has seen such a record. It is not listed in any Victor catalogue, nor is there a file card for this number in the Victor archives. But the user of the index has no way of knowing whether a missing number was totally unknown to the compiler, or just falls outside the scope of the work for any of the reasons mentioned above.

The matrix number index is organized in a slightly different, and even more problematic, way. In the era of 78 rpm records, each record company usually had one or several matrix series to identify its recordings. Many U.S. companies reserved a special series for their "ethnic" recordings. Discographers frequently attempt to reconstruct such series to help them date recordings, and identify missing recordings. On pages xxvii-xxxii Spottswood briefly discusses some of the most important matrix series used by major companies for ethnic recordings. However, in the matrix number index, the listings are not arranged by record company or label. Instead all matrix numbers are listed in ascending order ignoring prefixes, suffixes and takes. As a consequence, many numbers—especially those below 10,000—appear several times in the index. For instance, there are five different recordings in the discography with matrix number 860:

M 860 Columbia, New York 1906
An index of this type makes sense for a user who has a disc in his hands and wants to locate it in the discography. A recording made by a particular company might be issued on several different labels, and it would be difficult to know that a Regal record has a matrix number belonging to a Columbia series. However, this approach makes the index difficult to use for anyone wishing to reconstruct a series for research purposes. For most other purposes it would have been more useful to sort the matrix numbers by company.

The present form of the index is probably due to the limitations of available computer programs. There were frequently small changes in numbering—for instance, the Columbia series, which started at 105000, at one point added the prefix "W". It would be difficult to write a computer program which would automatically sort all the matrix numbers into their proper series.

The ideal computerized discography should probably take the form of a hypertext, in which the various fields are not only linked to each other, but also to additional sources of information. This way the user could not only locate a record with the matrix number SA 860, but also have a look at a complete listing of the Vocalion San Antonio series (which also contains many recordings outside the scope of this work) in order to determine whether there are unknown, unattributed numbers of potential interest in the series. This is not possible in print; the discography would have to be published on a CD-ROM disc or as an online database.

It would probably not be practical to limit such a discography to any particular type of music. Many matrix and catalogue series contain several types of recordings. Nor would it be a good idea to limit the contents by geographical area. Spottswood’s listings show that many American "ethnic" recordings were also issued in Europe, Australia and South America. On the other hand, many recordings issued by American record companies in their "foreign" series (not listed by Spottswood) were originally recorded abroad. The logical goal would be a data base with information on all 78 rpm records ever issued.

A pipe dream? No. This is the moral of the present work: with the aid of a computer, it is today possible to document extremely large numbers of recordings in diverse languages and with diverse contents. *Ethnic Music on Records* might
become the first installment of the *International Discography of 78 rpm Records*. With slight modifications, it could serve as a model for the larger, all-embracing work.

Pekka Gronow

REFERENCES

RECENT PUBLICATIONS


Available from Centro di Documentazione del Pontificato di Giovanni Paolo II, Via Cassia N. 1200, I-00189 Roma, Italy.


Available from Jo Huddleston, P.O. Box 136, Fleet, Hampshire GU13 8LX, Great Britain.


PR brochure with world-wide statistics of the sound recording production. Available from IFPI Secretariat, 54 Regent Street, London W1R 5PJ, Great Britain.


Erhältlich vom Birgit Lotz Verlag, Jean Paul Strasse 6, W-5300 Bonn 2, BRD.
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