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Das PHONOGRAPHIC BULLETIN erscheint dreimal jährlich und geht allen Mitgliedern der IASA zu. Aufnahmeanträge für die Mitgliedschaft bei der IASA sind an das Sekretariat (Anschrift siehe unten) zu richten. Die Mitgliedsbeiträge betragen derzeit SEK 125 für individuelle Mitglieder und SEK 280 für Institutionen. Frühere Jahrgänge des PHONOGRAPHIC BULLETIN (ab 1971) sind auf Anfrage erhältlich. Der Bezugspreis der PHONOGRAPHIC BULLETIN für Nicht-Mitglieder beträgt SEK 160.

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EDITORIAL

Grace Koch

The major topic of this issue is history. We begin the journal with two articles examining the past; one outlines some aspects of the development of IASA through a listing of the correspondence of Dietrich Lotichius, and the other casts new light on the identity of the inventor of the magnetic recording process.

The remaining sections of the issue deal with history in the making. IASA will, indeed, make history this year in holding its own conference separate from IAML. The conference will give members a chance to evaluate the direction of IASA in its session on "Whither IASA?" The current conference programme appears in this issue. Vienna in autumn provides an attractive draw card for members to attend this, our first conference on our own.

Recently, significant work has been done between IASA and various UNESCO committees, and some of the recommendations resulting from joint meetings follow Helen Harrison's report.

Due to the brilliant efforts of certain IASA members, the work of IASA is becoming increasingly visible on the international scene. Such a high profile for IASA means contact with a great number of organisations involved with audio-visual interests. One effect of the associations is the flow of a great number of acronyms through reports and articles in this journal. Some of these, like FIAT, evoke marvellous images - in this case, of light and automobiles - and they are eminently pronounceable. Acronyms such as UNESCO are hardly ever referred to by their full titles because they have nearly become words in themselves. Because these abbreviations have become firm parts of our lives and are generating a new international language, I now include a brief guide to acronyms of IASA-related organisations mentioned in this issue so that all readers will understand the references.

AES	Audio Engineering Society
BKSTS	British Kinematograph, Sound, and Television Society
EBU	European Broadcasting Union
FIAF	Fédération Internationale d'Archives du Film
FIAT	Fédération Internationale d'Archives du Télévision
FIP	Fédération Internationale des Phothèques
IAML	International Association of Music Libraries
ICA	International Council of Archives
IFLA	International Federation of Library Associations
IFTC	International Film and Television Council
INA	Institute National de l'Audiovisuel
NGO	Non-government organisation, such as IASA
SMPTE	Society of Motion Picture and Television Engineers
UNIATEC	Union Internationale des Associations Techniques Cinématographiques

HISTORY OF IASA COMMITTEE

CORRESPONDENCE OF THE INTERNATIONAL ASSOCIATION OF SOUND ARCHIVES

Rolf Schuurmsma, Universiteitsbibliotheek EUR, Rotterdam

At the Annual Meeting of IASA in Arlington Washington D.C. (1983) Dietrich Lotichius proposed the establishment of a History of IASA Committee. Both the Executive Board and the General Assembly reacted positively and the Committee came into being with Dietrich himself in the chair, and Claes Cnattingius and Rolf Schuurmsma as members, later followed by Eckehard Baer.

One of the aims of the Committee is the acquisition and description of documents relating to IASA's history. In the past few years Dietrich Lotichius, Harald Heckmann and Claes Cnattingius have deposited papers with respect to the pre- and early history of the Association in the archives, presently located in Hamburg. Thanks to the efforts of Gerald Gibson (Library of Congress) and Hans Bosma (NOS) documents were also received from the estates of the late Harald Spivacke, Don Leavitt and Joop van Dalfsen.

The description of several of these collections has been undertaken by Rolf Schuurmsma, but until now the resulting lists have been for the eyes of the History Committee only. However, at the Annual Meeting in Amsterdam (1987) the Committee decided to publish the descriptions in the *Phonographic Bulletin* dependent, of course, on the agreement of the Editor. We are pleased to note that Grace Koch has accepted our proposal and the first list is printed in the present issue of the *Bulletin*.

The purpose of the publication is twofold. In the first place the Committee feels that the membership of IASA should be informed about the steadily growing collection of papers in its archive. A full edition of the documents would go beyond the aims of the Association, but the short digests printed in the present issue of the *Bulletin* may at least provide members with some insight into the contents of the papers and bring about interest in IASA's history. In the second place the Committee would like to stimulate members of the Association to put their papers at its disposal. The documents may be copied if the suppliers wish to keep the originals themselves.

The first list of documents is based upon papers in the possession of Dietrich Lotichius. They are the oldest sources now in the archives of the Committee and they relate to the establishment of the Fédération Internationale des Phonothèques (FIP) in 1963. FIP was founded at the initiative of Roger Décollogne, head of the Phonothèque Nationale in Paris, but despite several meetings failed to attain a permanent status. In 1969 IASA was established to fill the gap and some years thereafter FIP quietly disappeared. The papers

from 1963 show some of the problems which particularly West-German radio archives felt with respect to joining FIP. They finally decided to restrict their interest in FIP to the position of mere observer, while instead stimulating cooperation inside IAML.

The papers which Dietrich Lotichius has left us from the pre-history of IASA can only provide a very scant insight into developments of those days. The Committee hopes, nevertheless, that these 'snapshots' from 1963 and the lists which will be printed in subsequent issues of the *Bulletin*, may stimulate other members to send their critical remarks to the Committee and to add their papers to the archives in Hamburg. There is still time to put the beginnings of IASA on record in the expectation that some day a historian will gather sources from the past and start writing the history of our Association.

CORRESPONDENCE OF THE INTERNATIONAL ASSOCIATION OF SOUND ARCHIVES

Correspondence of Dietrich Lotichius, Hamburg 1963

LIST OF DOCUMENTS

Compiled by Rolf Schuursma, July 1986

Explanation

The documents are listed in chronological order, with the names of the sender and addressee shown, if it was not Dietrich Lotichius himself. A short description of the text of each document, with reference to matters related to IASA, completes each entry.

The senders' and addressees' names comprise full first names and family names only.

First (call-) names and family names are used where possible in the description of the documents' texts.

Individuals' titles have not been added to any name.

Functions of individuals are mentioned only when relevant to the specific document.

All information in brackets has been added by the compiler.

1. 7/9.02.1963

Minutes of meeting of Preparatory Committee for the founding of Fédération Internationale des Phonothèques, Paris.

Opening by Vladimir Féodorov, President of IAML. Thanks to Roger Décollogne, originator of the plan to establish FIP, for his preparatory work. Election of Jean Salkin as President, Roger Décollogne as Rapporteur and Erik Maschat as Secretary of the Preparatory Committee.

Jean Salkin takes the chair. Decision to establish a Constitutional Assembly May 27, 1963, in Milan at the occasion of the IAML Annual Meeting, and to establish a working party for the preparation of the founding of FIP with Claudie Marcel-Dubois, Roger Décollogne, Vladimir Féodorov, Jean Salkin and Erik Maschat.

Discussion of draft constitution and by-laws, prepared by Roger Décollogne.

Meeting closed by Vladimir Fédorov.

Signed Erik Maschat, Secretary of the Preparatory Committee.

2. [undated]
Draft constitution of FIP in French

Probably the text of the draft constitution of FIP as revised by the Preparatory Committee [see No.1].

3. [undated]
Draft constitution of FIP in German

Probably a German translation of draft constitution mentioned under No.2, with heading of IAML Record Library Commission Draft presented by Roger Décollogne.

4. 14.05.1963
from Franz Reinholz, [Norddeutscher Rundfunk], Hamburg

Letter with several enclosures containing useful information for the meeting in Milan [see also No.1] as follows:

- 4.1 Minutes of the meeting of the Preparatory Committee of FIP, 7/9 February 1963 in Paris [see No.1].
- 4.2 Letter from Franz Reinholz to Gerhard Schröder, Intendant of the Norddeutscher Rundfunk, 14 May 1963, stating that Dietrich Lotichius will participate in the Constitutional Assembly of FIP, 28 May - 1 June 1963, in the name of NDR, without any further obligation.
- 4.3 Letter apparently from Martin Kunath, Director of the Lautarchiv des Deutschen Rundfunks [usually called Deutsches Rundfunkarchiv] in Frankfurt am Main, d.d.3 May 1963, in which the above mentioned minutes were enclosed. Proposal to establish a tentative national committee of sound archives and to delegate representatives of the Deutsches Rundfunkarchiv and the Deutsche Musik-Phonothek in Berlin to the Constitutional Assembly of FIP in Milan.
- 4.4 Declaration addressed at the Deutsches Rundfunkarchiv in Frankfurt am Main concerning the tentative entry into the Association of German Sound Archives, the entry of the Association into FIP and the delegation of representatives of the Deutsches Rundfunkarchiv and the Deutsche Musik-Phonothek to the Constitutional Assembly of FIP in Milan. The declaration is stamped: NDR-Intendanz, 6.5.1963. There is no signature.

5. 05.1963
From ten institutions to the Deutsches Rundfunkarchiv, Frankfurt am Main.
- Same Declaration as mentioned under 4. from:
- Musikbücherei der Stadt Düsseldorf, dd 14.5.1963,
 Stadtbibliothek Koblenz, dd 18.5.1963,
 Städtische Musikbibliothek München, received 14.5.1963,
 Stadt- und Landesbibliothek Dortmund, received 14.5.1963,
 Beethoven-Archiv Bonn, received 20.5.1963
 Deutsches Rundfunkarchiv Frankfurt am Main, undated,
 Bayerischer Rundfunk, undated,
 Saarländischer Rundfunk, undated,
 Deutsche Musik-Phonothek, undated,
 Berliner Phonogramm-Archiv, undated.
6. 21.05.1963
From Lautarchiv des Deutschen Rundfunks, Frankfurt am Main
- Declaration stating that Dietrich Lotichius, Hamburg, represents Martin Kunath because of illness of the latter, in the meeting of the Executive Committee of FIP. Signed by Martin Kunath and Hans-Joachim Weinbrenner.
7. [undated]
Description of the Deutsches Rundfunkarchiv
- Text in English titled "The German Radio Library". Two pages typescript.
8. 27.05.1963
Minutes of the Constitutional Assembly of FIP in Milan and list of participants
- Chair: Vladimir Féodorov, President of IAML. Amendments of the draft constitution of FIP [see No.2]. Election of members of the Executive Committee.
- List of participants, representing associations or national committees, and 3 observers. Names:
 Colombo, Cunningham Décollogne, Dorf Müller, Duvelle, Eckersley, Graf, Hanckart, Jurres, Lindberg, Lotichius, Melle, Britten, Pommier, Pomponi, Prokopowicz, Salkin, Sartori, Schermall, Senequier, Spivacke, Wade, Wild, Zwirner.

9. 31.05.1963

From Hans-Joachim Weinbrenner [Deutsches Rundfunkarchiv, Frankfurt am Main]

Apparently circular communication concerning a letter from Intendant Hess on participation in FIP. Weinbrenner does not agree with Kunath on the desirability of a German Association of Sound Archives because of the fear of no use for radio archives and majority of non-radio archives. Requests decision by the Board [of the DRA].

10. 01.07.1963

To Franz Reinholz [Norddeutscher Rundfunk], Hamburg

Report on the founding of FIP. Lotichius participated in the Constitutional Assembly of FIP as representative of the Norddeutscher Rundfunk and the Deutsches Rundfunkarchiv.

Martin Kunath, who acted for the tentative West-German national group, was represented by Lotichius in the Executive Committee meeting. Lotichius' opinion: IAML Record Library Commission more suitable for radio archives than FIP. Proposes NDR to become member of IAML and to stay out of FIP.

10.1 Enclosed: report apparently for the Deutsches Rundfunkarchiv on the founding of FIP, with more details than above mentioned report. Conclusion: FIP seems to suit the French situation more than the West-German radio archives. Lotichius prefers cooperation within IAML Record Library Commission.

10.2 Enclosed also: draft constitution [see No.3] with handwritten amendments, list of members of Executive Board [Décollogne, Spivacke, Zwirner, Salkin and Vandeleene] and Executive Committee. List of participants in the Constitutional Assembly of 27.5.1963 [see No.8]

11. 04.07.1963

Note of telephone call from Hans-Joachim Weinbrenner

On 04.07.1963 meeting of the Board of the Deutsches Rundfunkarchiv with all Intendants of the West-German Broadcast Institutions present. Elaborate discussion about IAML and FIP. Decided to promote the work of IAML and to have the Deutsches Rundfunkarchiv observe FIP. No wish for a West-German national group.

12. 11.1963

From Jean Salkin, Secretary General of FIP

Circular letter requesting payment of dues.

1888-1988: A HUNDRED YEARS OF MAGNETIC SOUND RECORDING*

Friedrich Karl Engel

Vice Chairman, AES Technical Archives Committee, Europe Region Audio Tape Application Engineering Dept., BASF AG, D-6700 Ludwigshafen, FRG

In the past, the essay "Some Possible Forms of Phonograph" by the American engineer Oberlin Smith, dating from 1888, has been regarded merely as a first indication of the possibility of electromagnetic sound recording. The Danish engineer Valdemar Poulsen has hitherto been considered to be the actual inventor of this method of sound recording. A recently discovered reader's letter proves that Smith constructed a unit with functional transducers, which could at least be used for experimental purposes, and is therefore the inventor of the magnetic sound recording technique.

1888 September 8 saw the publication in the United States of three papers of great significance in the light of later events: the engineer Herman Hollerith's first two patents relating to punch cards for analyzing censuses and similar data [1], and a 2400-word article "Some Possible Forms of Phonograph"[2] by the mechanical engineer Oberlin Smith (Fig. 1). Hollerith's studies are regarded as the origin of modern data processing, while Smith describes an original method for storing sound signals. His article appeared in *The Electrical World*, which at that time was "the world's most widely read technical journal"[3]. In principle, the mechanical storage of speech - or, in more general terms, of sound signals - and its transmission by wire were known in 1888:

- 1) In 1875 Alexander Graham Bell applied for a patent for his telephone, symbolizing communication over any distance without the inevitable restrictions imposed by the telegraph.
- 2) In 1877 Edison invented the phonograph, which for the first time made it possible "to store up and reproduce automatically at any future time" sound, music, and speech (quoted in [4, p.662]).
- 3) In 1887 Emile Berliner launched the "gramophone," the definitive form of mechanical sound recording.

These three inventions heralded the most far-reaching expansion in methods of communication since the invention of letterpress printing. By the same token, the commercial prospects for exploiting this expansion were exceptionally promising. In brief, the stage was set for inventors and new inventions. It says much for the editorial farsightedness of *The Electrical World* that it gave extensive coverage to the *mechanical* recording of sound - even though it prefaced the work of a mechanical engineer, whose description of a "purely *electrical*" version it printed, with a somewhat skeptical editorial note.

What were the processes of thought which led Smith to combine the function of the phonograph - the recording and reproduction of audible phenomena - with the telephone's transducers to obtain a novel recording technique, and in addition to invent a sound storage medium that was appropriate for the system? Let us attempt to reconstruct those processes.



Fig. 1 Oberlin Smith, mechanical engineer from Bridgeton, NJ (1840-1926). The picture probably shows him as president of the American Society of Mechanical Engineers in 1889.

Imagine that speech could be transmitted over a telephone line at a very slow "rate of travel," so that at a particular point in time the entire message would be somewhere in the wire between speaker and listener. If it were possible to "freeze" this situation, the effect would be to store or fix the message, to have recorded it (converting a time function into a place function). In order to bring this about, Smith proposes three "possible forms of phonograph":

- 1) Changing the profile of ribbon-or wire-shaped carrier, which is to be warmed to make it easier to distort¹; a vertically modulated groove is to be made in the ribbon, in the manner of the Edison phonograph, and the wire is to be indented in the manner of a toothed rack; that is, the plastic pattern of the recording is to be both produced mechanically and read mechanically.

- 2) Changing the "resistance profile" of the carrier, in other words its galvanic conductivity, which is produced mechanically and read electrically (elements of the carbon microphone principle applied to sound recording), that is, the recording forms a resistance pattern.

Smith devoted only a quarter of his article to these two methods; they are dealt with in a somewhat casual manner, and are probably merely intended to demonstrate his familiarity with the problems of

mechanical sound recording and to trace the thought processes that led to his actual invention.

3) Changing the "magnetic profile" of the carrier, in other words, the magnetic flux in the direction of movement of the carrier, that is, the sound signal is stored in the form of a magnetization pattern. Smith clearly stresses the fundamental novelty:

The following proposed apparatus is...*purely electrical*, and is, as far as known to the writer, the only one fulfilling such conditions that has been suggested. (Italics as in original.)

This wording may be open to attack (the transport of the sound carrier remains a mechanical matter), but on closer inspection the idea is a technological revolution. Smith, in fact, outlines an apparatus which not only contains important assemblies to be found in a modern magnetic tape recorder but also uses, in principle, the same storage procedure - he is inventing magnetic sound recording.

Proof of this can be found in Figs. 2 and 3. D and E are the supply and take-up reels, respectively, for the sound carrier C, and are driven by a clockwork motor (not shown); J is a rudimentary sound carrier tension control; A is the "microphone," in other words, the acoustical-electrical transducer; B is the electrical-magnetic transducer (a magnetizing coil, equivalent to a magnetic head); and F is a battery which supplies the operating voltage.

During recording, the audio frequency currents pass through coil B and generate a magnetic field there, so that a magnetization pattern is formed on the moving sound carrier C, which reflects the sound vibrations. Or, as Smith puts it:

...the current, broken into waves of varying lengths and intensities corresponding with the vibrations of the diaphragm in the telephone, passes in its circuit through the helix B, converting into a permanent magnet any piece of hardened steel which may be at the time within the helix. Through this helix B passes a cord...C, made wholly or partly of hardened steel, and kept in motion by being wound on the reel E from off the reel D... When in operation..., the cord C becomes, so to speak, a series of short magnets.... The actual lengths of these groups depend upon the speed..., but their relative lengths depend upon the relative lengths of the sound wave; and their relative intensities depend upon the relative amplitudes of these waves.

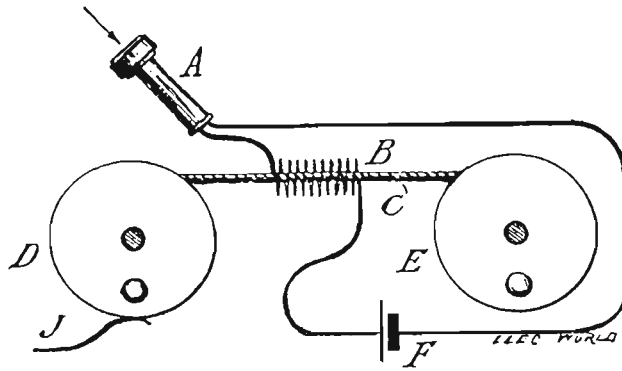


Fig. 2 Smith's diagram of his magnetic sound recorder, shown here in the recording position. (From [2].)

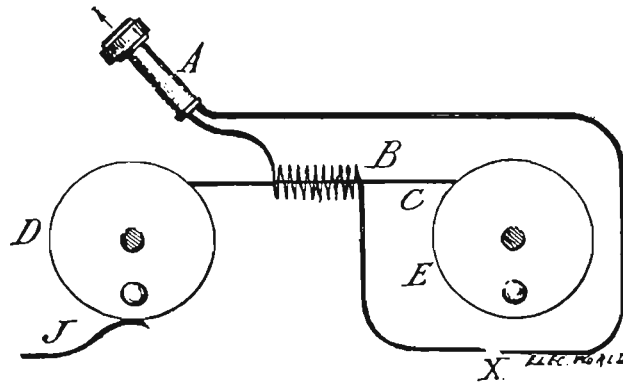


Fig. 3. Smith's diagram of his magnetic sound recorder, shown here in the playback position. An amplifier ("intensifying apparatus") should be inserted at X. (From [2].)

During playback - for which, as Smith emphasizes, substantially the same components can be used as for recording - the telephone receiver A is the "loudspeaker," the electrical-acoustical transducer. The coil B, which is now the magnetic-electrical transducer, operates as an induction coil, that is, it translates magnetization into electrical voltage. Smith describes it like this:

To make the ...cord C "talk back" it is, after having been rewound on the reel D again drawn through a helix B, Fig. 3....Of course it is drawn through at approximately the same speed as before. In passing, the small permanent magnets in the cord C induce currents of electricity in their enveloping helix....These waves of current will correspond in length and relative intensity with the original wave currents, and will therefore reproduce the vibrations of the original sound in the diaphragm...at any time in the future.

The vital words "at any time in the future" almost reproduce Edison's! The playback circuit is interrupted at X: Smith, farsightedly, thinks a modification here may be desirable or necessary:

...it may be possible to insert at X, Fig. 5, some intensifying apparatus...but which has not yet been thought out.

What is the nature of the sound carrier? Smith has an original proposal to make:

The probable construction of C would be a cotton, silk or other thread, among whose fibres would be spun (or otherwise mixed) *hard steel* dust, or short clippings of very fine steel wire, hardened....Other forms of C might be a brass, lead or other wire or ribbon through which the steel dust was mixed in melting - being hardened afterward in the case of brass or any metal with a high melting point.

The hardening is perhaps intended to improve the corrosion behavior of steel. As regards the dimensions of the pieces of wire, Smith gives specific instructions:

Experiments with hardened steel wire, broken in a special machine into very short pieces, showed that they must not be too short - say not less than three or four times their diameter - or they could not be saturated with magnetism...

- a consequence of the self-demagnetization of relatively short bodies.² Smith is conscious of the advantage of his sound carrier as regards both quality and economy:

The cord C therefore contains a perfect record of the sound, far more delicate than the indentations in the tin-foil of the mechanical phonograph....The cotton thread above

mentioned would seem to be preferable to anything else on account of its cheapness, lightness and flexibility.

Smith thus points the way to what, along with the phonograph disk, will be the most successful line of development. Briefly, he has invented magnetic sound recording. In the past the credit for this invention has been given to the Danish engineer Valdemar Poulsen. It was certainly Poulsen who, from 1898 onward, was the first to achieve magnetic sound recording with mass-produced apparatus and to demonstrate it publicly. His contribution [5] cannot be denied. But the proper historical sequence of events requires that we should rewrite the opening chapter of the history of magnetic sound recording, since we now have satisfactory answers to justified questions that have been posed regarding Smith's work [6]-[9].

First question: Who and what was Oberlin Smith?

In the past we have been dealing with assumptions like: "To judge from his technical ideas he must actually have been a physicist who took the name Smith as camouflage" [9]. Recently, however, two short biographies and other published material have come to light. Smith was born 1840 March 22 in Cincinnati, OH, and died 1926 July 18 in Bridgeton, NJ. He was a successful mechanical engineer and owned a company called Ferracute. He applied for about 70 patents; in 1889 he was elected president of the American Society of Mechanical Engineers. His parents were born in England; his father was deeply committed to the antislavery movement. Smith himself later shared this commitment, and was also an advocate of women's suffrage - clearly he was a progressive personality not only in technical matters [10], [11].³

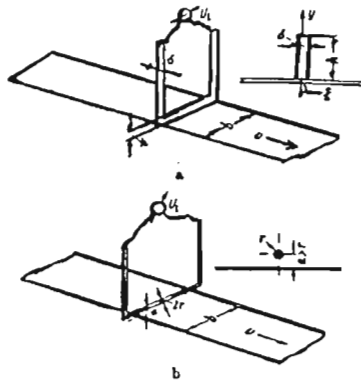


Fig. 4. Single-turn transducer for magnetic tape scanning. (From [13].)

The second objection: The (relative) length of the coil B supposes a very high carrier speed [9]. This reservation is entirely justified. However, it can be traced to an error in the drawing. This is apparent from a hitherto unknown letter from Smith to the editor of *The Electrical World*, dated 1888 September 29 [12]. Smith writes:

In cuts, Fig. 4 and 5, the helix should be shown very short, and possibly might consist of only one coil, as with the long helix represented it would be impossible to localize the magnetism in the way desired...

- and it may be added, to store it at all. Modern literature [13] names the single-turn transducer (Fig. 4) as the physically simplest method of scanning a magnetic tape, and this very much resembles Smith's diagram (Fig. 5) as corrected in accordance with his instructions.

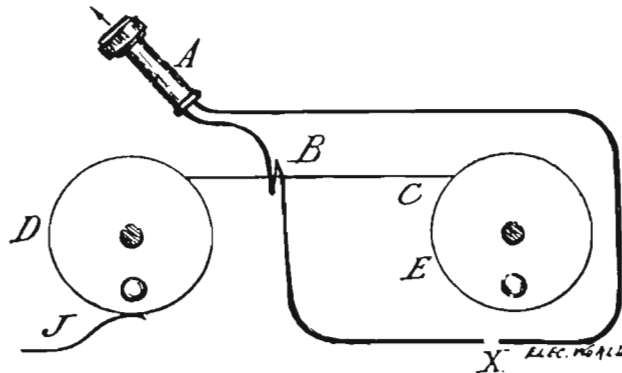


Fig. 5. Smith's diagram of his magnetic sound recorder, with the transducer dimensions corrected in accordance with his instructions of 1888 Sept. 29.

Third objection: The essay reads like an armchair study, an exercise in pure theory. If Smith conducted no experiments, he can hardly be called the inventor. In this instance, Smith's letter of 1888 September 29 provides a more than adequate answer:

At the time I experimented I also tried drawing the cord across the corner* of an electro-magnet around which the helix was wound, instead of allowing it to act directly upon the cord. This would probably be a better way,...

* sic in original: "corner" is probably a typo for "core."

- and so it would, since coil and core are elements of all present-day electromagnetic transducers. This not only provides proof of Smith's experimental work, but it also shows that he invented a second functional transducer. The additional data he supplies lead to

an arrangement as shown in Fig. 6, which bears a great resemblance to Fig. 7. This shows the transducer configuration used in the 1930s to scan magnetic steel tape recordings [14].

In light of this evidence other passages in Smith's study take on a new importance, such as the findings quoted above regarding the ideal length of the magnetic particles. The appropriate paragraph (in "Some Possible Forms of Phonograph") starts with a confession and a remarkable item of information:

Like the two mechanical methods first mentioned, this electrical method has never been worked out to completion. The writer went far enough with it to build a temporary apparatus and to develop a successful machine for spinning metallic dust into a cotton cord, but was obliged to lay aside the whole thing before arriving at any acoustic results. (*Italics as in original.*)

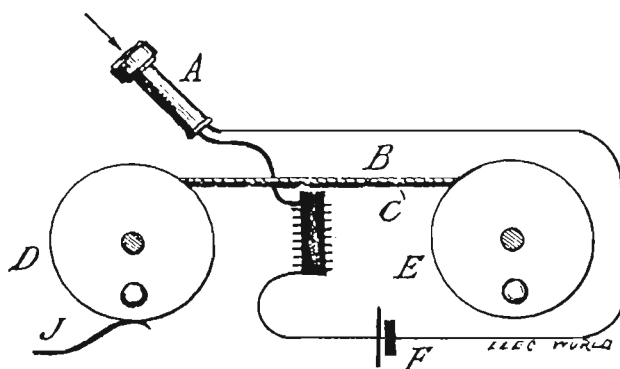


Fig. 6. Smith's diagram of his magnetic sound recorder, with the transducer redesigned in accordance with his instructions of 1888 Sept. 29.

Smith makes it clear that he regards the "recording telephone," in particular, as a practical proposition. This is apparent from Fig. 8, in which the magnetic sound recorder is incorporated into a telephone circuit, and a passage from which there is only a single step to the key phrase "data protection":

Of course the record might be made at the receiving instead of the transmitting end of the line, and thus our hypothetical young lady might, while listening to the impassioned pleadings of her chosen young man, be preparing the evidence for a future breach-of-promise suit.

The young lady has been introduced in order to clarify another aspect of the sound carrier:

The Lord's Prayer could be written upon a few feet of thread or string, while a young lady receiving a small spool of cotton from her lover would think herself abominably neglected if it was not "warranted 200 yards long."

Anyone with a similar sense of humor should be able to reconstruct from these data the speed at which Smith expected his sound carrier to operate. His ideas about magnetism are equally uncertain:

The writer confesses to a good deal of ignorance upon the subject, but he was somewhat surprised to find an equal amount in several well-known electricians whom he consulted; and also to find that none of the books he had at hand gave any definite data regarding the best proportions for permanent magnets.⁴

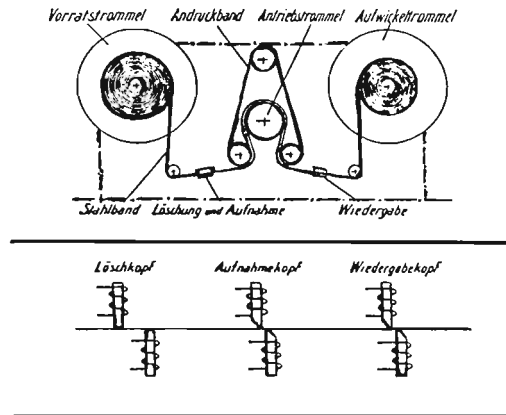


Fig. 7. Design of magnetic heads in the "steel-tape magnetic recording machine" [14].

Smith remains a realist, too, in his evaluation of his invention:

...it is possible that an insuperable objection to it would be found in the great diameter and length which would be required to hold magnets of sufficient strength and quantity. This, however, can be determined by experiment only. Of course if this cord approached a clothes line rather than a piece of sewing silk, in its general proportions it would be utterly useless as a practical recording medium....One disadvantage of the cord is that if

some small portion of the record near the middle has to be repeated there is a good deal of unwinding to do to get at it...In practice, however, it might prove that this unwinding was a small matter, if a rapidly working automatic winder were used.

"Some Possible Forms of Phonograph" was cited against Smith as a prior disclosure when he attempted to apply for a patent for his invention, although he had already filed a caveat as early as 1883.⁵ This probably means that Smith had carried out his experiments five years before publishing the results, and this is supported by evidence in the text ("...which the writer contrived some years ago, but which were laid aside and never brought to completion...").

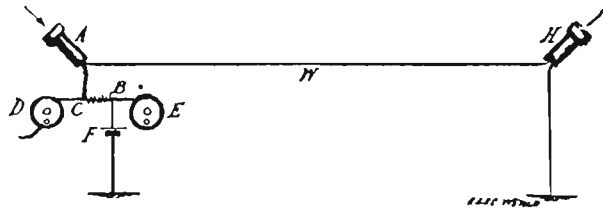


Fig. 8. Smith's magnetic sound recorder incorporated into a telephone circuit. (From [2].)

Smith was probably as unable as most of his contemporaries, including Edison, to recognize the full implications of his invention. Apart from two readers' letters to *The Electrical World*, which have little to add, there seems to have been no further reaction in the United States. (But who had what reason to cite "Some Possible Forms of Phonograph" as a prior disclosure?) A literal translation of Smith's article was published in France [15]. Did Poulsen read *The Electrical World*? So far as we know, he did not refer to Smith in any of his patents or publications, while Smith himself followed the course of events. In his 1904 biography we find the revealing sentence: "The invention has recently been taken up in Sweden⁶ and developed into commercial shape" [10].

Perhaps Smith's proposals were still ahead of their time. Even Poulsen's "Telegraphone" - some of which used steel wire, others steel tape - ultimately failed for lack of amplification equipment, which was not available until after 1910, by which time the Austrian

Robert von Lieben had developed the vacuum tube, invented by the American Lee de Forest, into the low-frequency amplifier [16].

The question still remains: what results did Smith's experiments produce? Evidently, not "acoustic results" in the sense of sound signals, but couldn't the italicizing of "acoustic" express that Smith was somehow able to convince himself that signals were stored on his magnetic sound carrier? Did he perhaps use a circuit consisting of a battery and morse key as a "generator" to record dc pulses that were audible as crackling when played back? Only experiments could answer these questions, and the centenary of the publication of Smith's study and the addition of 1888 September 29 (or, at least, his 150th birthday in 1990) should be sufficient cause for such experiments to be conducted in the U.S.

Smith's essay was rediscovered in the United States by Semi J. Begun while he was working on his well-known book *Magnetic Recording* [6], [17]. In 1930 Begun, while working for C. Lorenz in Berlin, designed among other things the steel tape magnetic recording machine, the unjustly forgotten predecessor and competitor of the Magnetophon,⁷ the present-day analog tape recorder. From 1944 onward, in the United States, Begun constructed the Soundmirror tape recorder, independently of the German development of the Magnetophon, and many of these were sold by the Brush company. It was mass production of the audio tapes for the Soundmirror that gave 3M its foothold in magnetic tape technology.

Herman Hollerith, whose patents were also published 1888 September 8, enjoyed quicker and greater success than Smith. His counting and sorting machines were used successfully for the American national census as early as 1890. One curious sidelight: the results of the census were published with reluctance because the population of the growth-conscious United States had increased, since 1880, not by 30%, as was naturally assumed, but "only" by 25% [1].

NOTES

- * Reprinted with the kind permission of the *Journal of the Audio Engineering Society*, Vol. 36, No. 3 (March 1988), pp. 170-178.
- 1. The heating of a "sound tape provided with a wax layer" was, however, regarded as patentable in 1938 (German Patent 747, 218). Mechanical sound recording was also carried out using tape-shaped carriers, as, for example, in the "Tefiphon," which was on sale in West Germany until around the end of the 1950s.
- 2. Today's magnetic pigments are 10 times as long as they are thick, due to target-oriented development. The higher the coercivity of the storage medium, the more the storage density can be increased. Regarding the use of a thread with included pigments, compare Smith's information with German Patents 831,459 and 811,508 (BASF, 1949). "Filament-Shaped Carriers Coated (Not Interspersed) with Magnetic Pigment."

3. We are grateful to Dr William Lafferty, Wright State University, Dayton, OH, for drawing out attention to [10] and [11].
4. Acicular magnetic pigments were not developed until about 1950. Carbonyl iron (1932-1936) is spherical; iron oxides Fe₃O₄ (1936-1939) and Fe₂O₃ (from 1939) were initially used in the form of cubic pigments.
5. A caveat (under statutory regulations in effect up to about 1907) is filed in the patent office. The principal object of filing it is to obtain for an inventor time to perfect his invention without the risk of having a patent granted to another person for the same thing. In the practice of patent law, a caveat means a legal notice serving the purpose not to issue a patent of a particular description to any other person without allowing the caveator (one who files a caveat) an opportunity to establish his priority of invention. See [10].
6. More accurately, in Denmark.
7. A comprehensive description of the "steel-tape era," particularly the simultaneous, independent development of the Marconi-State tape recorder and Dr Begun's steel-tape sound recording machine, will be found in [5] and [18].

REFERENCES

- [1] H. Zemanek, "Hollerith und Schäffler - Datenverarbeitung um 1890, Drei Nationen werden elektrisch gezählt" (Hollerith and Schäffler - Data Processing around 1890, Electrical Censuses in Three Nations), in *Elektrotechnik im Wandel der Zeit (Electrical Engineering over the years)*, H.A. Wessel, Ed. (VDE-Verlag, Berlin/Offenbach, 1986), p.96.
- [2] O. Smith, "Some Possible Forms of Phonograph," *The Electrical World*, pp. 161 ff. (1888 Sept. 8). All quotations not otherwise attributed are taken from this source. The Library of the Swiss Federal College of Technology (ETH), Zurich, Switzerland, has a copy of the 1888 volume.
- [3] *Elektrotechn. Z.* (Germany), p. 169 (1889 Mar.). The text was published *inter alia* by Marvin Camras in his book *Magnetic Tape Recording* (Van Nostrand Reinhold, 1985), so that it is accessible to a wider audience.
- [4] W.L. Welch, "Edison and His Contributions to the Record Industry," *J. Audio Eng. Soc.*, vol. 25, pp. 660-665 (1977 Oct./Nov.).
- [5] W. Ch. Lafferty, "The Early Development of Magnetic Sound Recording in Broadcasting and Motion Pictures," Ph.D. Dissertation, Evanston, IL, 1981.
- [6] S.J. Begun, *Magnetic Recording* (Rhinehart, New York, 1949), p.2.

- [7] J. Klinkmüller, "Zur Geschichte der elektromagnetischen Schallaufzeichnung" (On the History of Electromagnetic Sound Recording), *Elektrotechn, Z. A*, vol. 76, no.3, pp. 48-50 (1955).
- [8] P.A. Zimmerman, "Oberlin Smith, ein vergessener Erfinder" (Oberlin Smith, a Forgotten Inventor). *Die RASF* (house organ of RASF AG), p. 146 (1957).
- [9] W. Bruch, *Von der Tonwalze zur Bildplatte (From the Sound Cylinder to the Video Disk)*, pt. 2 (Franzis Verlag, Munich, 1983) pp. 9-14.
- [10] *The National Cyclopedia of American Biography*, vol. 12 (James T. White & Co., New York, 1904) p. 461. Pertinent text is republished in AES preprint 2550 (F-1).
- [11] *Who Was Who in America*, vol. 1 (The A.N. Marquis Co., Chicago, 1943), p. 1147. Pertinent text is republished in AES preprint 2550 (F-1).
- [12] O. Smith, letter to the editor, *The Electrical World*, p. 179 (1888) Sept. 29). Pertinent text is republished in AES preprint 2550 (F-1).
- [13] O. Schmidbauer, "Vorgang der Magnetton-Aufzeichnung und Wiedergabe" (Magnetic Sound Recording and Reproduction), in F. Winkel, Ed., *Technik der Magnetspeicher (Magnetic Storage Technology)*, 1st ed. (Springer, Berlin, 1960), p. 48.
- [14] H.-J. von Braunmühl, "Der heutige Stand der Schallaufnahmetechnik und ihre Anwendung beim deutschen Rundfunk" (The Present State of Sound Recording Technology and Its Application in German Radio), *Akust. Z.*, pp. 250 ff. (1938).
- [15] J. Wetzler, "Le Phonographe; La Lumière Electrique" (The Phonograph; The Electric Light), quoted in [9, pp. 592-594].
- [16] R. von Lieben, E. Reisz, and S. Strauss, German Patent 249,142 (1910 Dec. 20).
- [17] S.J. Begun, personal communication, 1986 Dec.
- [18] W. Lafferty, "The Use of Steel Tape Recording Media in Broadcasting," *SMPTE J.*, pp. 676-682 (1985 June).

REPORT OF THE IASA EXECUTIVE BOARD MEETING, HILVERSUM, FEBRUARY, 4-5 1988

Jean-Claude Hayoz, Secretary-General, IASA

Present: Helen Harrison (President); Hans Bosma (Vice President); Magdalena Csève (Vice President); Ulf Scharlau (Vice President); Anna Maria Foyer (Treasurer); Jean-Claude Hayoz (Secretary General)

Attending: Dietrich Schüller (only February 4)

Apologies for absence were received from Grace Koch.

The minutes of the Amsterdam Executive Board meetings were discussed and approved.

Annual conference, Vienna. One of the main tasks of the mid year meeting is planning the details of the annual conference. Members should have received their conference invitation and preliminary programme details in February. As any conference delegate will realise, the programme is changing up to the date of the conference, but latest details are always available from the Secretary General. A further programme is included in this issue of the Phonographic Bulletin. The Board discussed the venue, the social programme, and the contents of the conference. The social programme contains such events as a short visit to the Historical Archive of the ORF, city walks, an outing to the Vienna woods, and a farewell-party.

Programme sessions: There will be two main sessions of general interest, "Audiovisual Heritage of a Nation (Austria)" and "Future of IASA". The committee - open sessions will include Cataloguing of Sound Recordings: Published and Unpublished Materials, The Sekamos System of Süddeutscher Rundfunk Stuttgart. Cost of Storage and Preservation and a presentation of the ARSC-AAA Project on Audio Preservation.

The topics of the Future of IASA sessions will be:

1. The goals of IASA
2. The links of IASA to other AV-Organisations
3. Does IASA need more affiliated organisations or National Branches.
4. Future conferences
5. The position of the Phonographic Bulletin in relation to the organisation.

Papers will be given by Rainer Hubert, Hans Bosma and Grace Koch.

The agenda for the General Assembly was decided and is published in this Bulletin. The Monday General Assembly will include the officers' report and proposals of changes of the constitution and the by-laws.

Other items for possible discussion during the week will be introduced at that early stage. The second part of the General Assembly will take place on Friday and include National Branch and affiliated organisations reports, committee reports, an Open Forum and future conference discussion and announcements. This year, the second part of the General Assembly will form the closing session.

Financial report. The Treasurer, Anna Maria Foyer, presented the accounts dated 31.12.87, as follows:

Balance at 31.5.87	SEK 103'198.43
Receipts 1.6.87-31.12.87	SEK 30'712.72
Expenditures 1.6.87-31.12.87	SEK -18'419.95
Balance at 31.12.87	SEK 115'491.20

Membership. The Treasurer reported a membership of 213 institutional members, 164 individual members, and 26 subscribers. Members who had not paid up to last December will receive one more reminder, together with the invoice for 1988.

Dues. The President pointed out that we should consider changing the system of dues, considering the small financial basis of IASA. The dues, as they stand at the moment, are comparatively small for institutional organisations. The main reason for increasing the dues for institutional members is the insufficient reserve-fund of IASA. The last change of dues was in 1983. Therefore it was decided to present a paper to the General Assembly in Vienna to increase the dues from 1989.

Committees. Much of the committee business had been discussed in Amsterdam with the officers present, and the Board took the opportunity in Hilversum to review the progress and work of the committees.

National and Affiliated Organisations Committee: The Board discussed the Australian issue, based on the correspondence. The Australian Branch had decided that under the present financial arrangements it had become impossible for the branch to work in a manner which could be considered satisfactory. Consequently, it was decided that the only course open to the Australian Branch would be to sever the connection as a branch of IASA and to operate as an independent body. They call the organisation "Australasian Association for Recorded Sound". The Board regretted the decision of IASA Australia to withdraw the close connection to IASA and to cease to be a National Branch of the Association. The IASA Board should now look to the future relations with our many members in Australia. In the past IASA (Australia) had had a 100% membership in IASA; that might be seen to have caused many of the problems. Other National Branches took advantage of the relaxation of the 100% membership rule and operated on a smaller proportion of IASA members (50% being the figure currently stated in the Constitution). That might be a basis for future co-operation.

The Board discussed also a letter received from ARSC. The President of ARSC mentioned the possibility of further co-operation between IASA and ARSC, and the organisations will consider a joint annual conference.

The Board urged greater communications between Committee Officers and the Executive Board.

IASA Policy. The proposals for changes of the constitution and by-laws was a topic for lengthy discussion. The main constitutional changes had arisen from the election which had taken place in Amsterdam and also from the report of the Nominating Committee.

For the new Board-structure, we have to change the by-laws Art. VI D. Another proposal concerned the immediate Past President. The Board is in favour of having the immediate Past President as an eighth member of the Board. We have to change the constitution in Art. VI A and B and the by-laws in Art. VI A2.

The Nominating Committee recommended considering a change of the Constitution and by-laws on the following points: Status of the honorary members as full individual members and the appointment of the chairman of the Nominating Committee.

Proposals for changes will be sent to members before the General Assembly.

The Board also decided to propose to the committees that committee officers should be re-elected or reconfirmed at more regular intervals.

Relations with other organisations. As an affiliated organisation of Unesco IASA maintains close contact with several international organisations and audiovisual associations.

Dietrich Lotichius will officially represent IASA at the IAML conference in Tokyo, and he will also give a report on the IAML Tokyo conference at the IASA General Assembly II in Vienna.

The Technical committees of IASA, FIAF, FIAT, and ICA had formed a coordinating committee to continue the work of the Technical Symposium in Berlin. They are continuing with tasks such as trying to get information about technical key personnel in various archives and institutions, trying to make contact with manufacturers in order to progress the interest in archive equipment, and they are taking under their wing the possibility of the organisation of a next Symposium.

The last meeting of the International Round Table of Audiovisual organisations took place in The Hague March 16-18, 1988. IASA was represented by the President, Helen Harrison, and a report will appear in this issue.

Publications. The Board discussed the report sent by the Editor and Co-Editor and congratulated them on the new look of issue 49 of the Phonographic Bulletin.

A new directory of members is in preparation, but as some questionnaires are missing, we must wait for the publication.

Other publications in preparation include the Training manual and the Technical manual.

For the 20th anniversary of IASA in 1989, the Board proposed to the History of IASA Committee to make a publication about the History of IASA.

The last item of the agenda concerned *future conferences*. The conference in 1989 will be held in Oxford (UK) 26.8. - 2.9. 1989. Further conference venues are still in some doubt. Any offers from members will be considered by the Executive Board with gratitude.

REPORT OF THE ROUND TABLE ON AUDIOVISUAL RECORDS, THE HAGUE 16- 18 MARCH 1988

Helen P. Harrison, President, IASA.

The eighth Round Table meeting on Audiovisual Records was held in the Royal Library, the Hague. This year it was hosted by IFLA (International Federation of Library Associations) and IASA was represented by the President.

The Round Table was attended by 9 people representing IASA, FIAT (International Federation of Television Archives), FIAF (International Federation of Film Archives), ICA/CAV (International Congress of Archives, Committee on Audiovisual Archives), IFLA and the IFLA Audiovisual Round Table, Unesco Division of the Communication Development and IFTC (International Film and Television Council). The chair and rapporteur are rotated annually and in 1988 the chairman was Guust van Wesemael of IFLA and the rapporteur Wolfgang Klaue of FIAF.

The meeting was extended this year to allow time for a full discussion on a special topic. Normally the organisations are given the opportunity to exchange views and business information, but it has become increasingly obvious that one or two topics are worth longer discussion: topics such as the training of audiovisual archivists, copyright, technical developments and acquisition and exchange of material.

Last year the Round Table meeting came just before the Joint Technical Symposium in Berlin and a two day meeting on the training of audiovisual archivists was held immediately after the latter event. It was therefore decided that in 1988 the Round Table would concentrate on copyright problems as one of the more outstanding areas of general concern. The meeting therefore opened with a one day 'seminar' on the copyright and related rights of audiovisual materials.

At first we were going to invite several copyright experts to the meeting, but in the end it was decided that it would be better to get our own house in order before proceeding to outside expertise.

Each of the member associations indicated the particular problems they encountered with regard to copyright, owners and distributors rights. Some of the organisations have drawn up documents concerning the rights of archives and others are signatories or parties to various copyright acts or legal documents drawn up and agreed by other national and international organisations. Most of these statutes and legal documents, while encompassing archives do not legislate for the archive situation and the Round Table decided to draw on its own members and try to arrive at a document of guidelines

or requirements for audiovisual archives which could then be organisations.

Existing documents were circulated, including minimum data lists from FIAT, the recommendations on the '*Safeguarding and Preservation of Moving Images*' which includes a few clauses on copyright, information about the Copyright and Archives Acts in several countries, the EBU (European Broadcasting Union) standards and also the IASA Guidelines for Archives and Libraries of sound and video recordings drawn up in 1987.

The members of the Round Table showed particular interest in the IASA guidelines and they were taken as the main document for discussion at the meeting. Of course it was principally written for the benefit of sound archives and this was recognised by the Round Table. At the meeting we extracted some of the elements which appeared relevant to all audiovisual archives and amended some of the other clauses. This new document will be presented to all the member associations of the Round Table at their annual meetings in 1988 for discussion and amendment. After all the amendments have been received it is hoped to produce a final agreed document by the end of the year which can be presented to Unesco for consideration and advice on further action.

After this very useful discussion on copyright the main meeting got underway on the Thursday. We began with the usual exchange of information about the several associations' work, publications and forthcoming conferences. This gives an opportunity for the Round Table to identify future cooperation between members and future projects which could be pursued jointly.


One of the major efforts of cooperation to have come from the Round Table to date have been the three Technical Symposia. In 1987 IASA was involved in the Joint Technical Symposium held in West Berlin as well as two following meetings: The Consultation of Users and Manufacturers and the Round Table on Curriculum Development for the Training of Personnel in audiovisual archives.

The Consultation of Users and Manufacturers established a small Coordinating committee with members from IASA, FIAF, FIAT and ICA and funded by Unesco. It is hoped that this Coordinating Committee, which has met three times in the interim period generously funded by Unesco, will take the initiative in preparing and advising on future Technical Symposia with the support of the organisations involved. Already they are looking to a Symposium in the early 1990s.

Reports on both of these meetings and the recommendations which arose from them have been made available to participants (and are included in this issue). Further meetings of a working group are being arranged to draw up plans and curricula for the training of audiovisual archivists and it is possible that these may be incorporated in a RAMP (Records and Archives Management) series of Unesco publications.

Finally the Round Table considered the 'Recommendation on the Safeguarding and Preservation of the Moving Image', drawn up in 1980 by FIAF and FIAT, and Unesco proposed a meeting to consider the effectiveness of this recommendation and its future implementation. IASA has already signalled its concern that the Recommendation excludes recorded sound, but it does have clauses which are directly applicable to our work. IASA has therefore been invited to take part in a meeting on June 6th 1988 to discuss whether additional recommendations are required to cover other media, or whether recorded sound and other current exclusions can be incorporated into the present document.

The next meeting of the Round Table is to be held in Brussels 15-17 March 1989 and will be hosted by FIAF.



RECOMMENDATIONS FROM THE FINAL REPORT OF THE UNESCO ROUND TABLE OF EXPERTS ON CURRICULUM DEVELOPMENT FOR THE TRAINING OF PERSONNEL IN MOVING IMAGE AND RECORDED SOUND ARCHIVES, 1987.

Prepared by Grace Koch

A Recommendation for the Safeguarding and Preservation of Moving Images was adopted at the 21st general conference of UNESCO at Belgrade in October, 1980. Articles 19 and 20c of this document called for international co-operation in organising training schemes, particularly for people in developing countries. The Recommendation inspired the creation of an annual Round Table of non-governmental organisations (NGOS's) concerned with preserving the moving image heritage. During the March 1986 meeting of this Round Table, a proposal was made to convene a conference of experts in the field of training personnel for film, television, and sound archives, and UNESCO was approached for support. This conference was held in Berlin (West) in May, 1987 with representatives from the International Federation of Film Archives (FIAF), the International Federation of Television Archives (FIAT) and the International Association of Sound Archives (IASA). Several participants also took part in the Joint Technical Symposium held by the same organisations in Berlin immediately preceding the conference.

Aims of the conference were to collect data on existing training programmes, to identify the main problems with such training, to discuss the methods and content of training and to propose better ways of training through steps to be taken at the national and international level.

The following report is printed verbatim from the document issued by UNESCO, FINAL REPORT, ROUND TABLE OF EXPERTS ON CURRICULUM DEVELOPMENT FOR THE TRAINING OF PERSONNEL IN MOVING IMAGE AND RECORDED SOUND ARCHIVES, 1987, pp. 6-8.

Recommendation for further actions

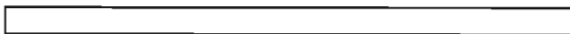
16. There was agreement that the NGO's participating in the Round Table on Curriculum Development for the Training of Personnel in Moving Image and Recorded Sound Archives would undertake the following practical steps:
 1. The training programmes run by NGO's and their affiliates will be continued. NGO's will regularly exchange information about planned training courses, topics and opportunities for participation via the annual Round Table.

Plans for 1987/88 will be sent to the organizers of the next Round Table, IFLA.
 2. Existing curricula for in-house and other training courses will be collected and presented to the organizers of the next NGO Round Table.
 3. The organizers of the next NGO Round Table will be given bibliographic details about available teaching material.
 4. The next NGO Round Table will look at further measures to draw up curricula for qualifying personnel in various fields and at various levels. It is recommended that a representative of the Centre International de liaison des écoles de Cinéma et de Télévision (CILECT) be invited.
 5. The NGO's will examine possibilities for collecting, storing and disseminating bibliographic data on all aspects of the activities of audiovisual archives and will compare opinions at the next NGO Round Table.
 6. The NGO's will compile from their affiliates projected needs for trained staff at various levels in various specialized fields.
 7. The NGO's will ask their members to identify existing centres whose interest in a higher education of audiovisual archivists could and should be cultivated.
 8. At the next Round Table the NGO's will compile a list of suitable trainers showing their specialist areas and knowledge of languages.
 9. The International Film and Television Council (IFTC) will make efforts to include the problems of training and educating audiovisual archivists in the new communication report for UNESCO.
 10. NGO's taking part in the 1988 Congress of ICA are called upon to discuss the problems of training audiovisual archivists at this forum.

17. The participants in the Round Table recommend UNESCO to pay greater attention to the problems of training the staff of audiovisual archives and to adopt the following measures in its next medium-term plan:
 1. Production of a feasibility study on possibilities for creating regional training centres for audiovisual archivists at existing institutions in Asia, Africa and Latin America.
 2. The organization of further training seminars of specialists and trainers on the most pressing problems of audiovisual archives (e.g. preserving colourfilm by deep-freeze storage and alternative methods; harmonizing computer programs; creating a standard for the description and cataloguing of audiovisual material; application of new technologies for recording and restoring moving images and recorded sound, etc.).
 3. Assistance in designing and producing teaching material in printed or audiovisual form that can be used worldwide for training personnel in audiovisual archives.

The participants in the Round Table further recommend:

- addressing UNESCO's 24th General Conference (October 1987) to discuss the problem of training and educating audiovisual archivists with the aim of creating an awareness for the urgency of measures at national and international level among the participants;
- drafting a preliminary study on the possibilities of distance teaching for personnel in audiovisual archives to be presented at the next NGO Round Table and to UNESCO;
- enabling another expert meeting to be held in 1989 where NGO preparations will be followed up by the adoption of concrete measures to develop the training and education of audiovisual archivists. This meeting could be organized in conjunction with the annual NGO Round Table;
- continuing programmes to support fellowships and the sending of experts to be trained on the spot.



FINAL REPORT FROM THE CONSULTATION OF USERS AND MANUFACTURERS OF AUDIO-VISUAL EQUIPMENT MEETING SPONSORED BY UNESCO, 1987

This report is printed verbatim from the document issued by UNESCO, FINAL REPORT, CONSULTATION OF USERS AND MANUFACTURERS OF AUDIO-VISUAL EQUIPMENT FOR ARCHIVES, 1987, pp. 4-7.

1. Following the Joint Technical Symposium 'Archiving the Audiovisual Heritage', jointly organized by FIAF, FIAT and IASA on the occasion of the 43rd FIAF Congress, NGO representatives from FIAF, FIAT, IASA and ICA met with representatives from industry at the invitation of Unesco.
2. The reason for the meeting was the increasing concern amongst archives about equipment. Due to the rapidly proliferating formats, and the consequent fears of lack of support for superseded systems from manufacturers, it seemed essential to open a dialogue with industry to discuss the needs of archives, which may differ from the needs of the programme makers.
3. The Joint Technical Symposium and the exhibition of technical equipment for work in archives were an integral part of the consultation.
4. At the beginning of the meeting, each of the NGOs, FIAF, FIAT and IASA presented a paper (enclosed). Speaking on behalf of Unesco, Carlos Arnaldo summarized a number of points for possible recommendations. These points were integrated into the lists of tasks below.
5. Everyone concerned expressed gratitude to Unesco for this initiative, stressing the significance of the dialogue and their willingness to cooperate in a closer and co-ordinated manner, in the spirit of the Unesco Recommendation of 1980 ('for the Safeguarding and Preservation of Moving Images'), extended to the medium of sound.
6. It is the task of the archives to ensure the long-term survival of audio-visual materials, and make them available to the public in their original versions. Based on these tasks, specific demands on technical equipment arise, differing from those of industry (broadcasting corporations and film production).
7. The prime requirements of archival technical equipment are:
 - USABILITY
An economic design of the machine; user friendliness; ease of maintenance
 - RELIABILITY

- FIDELITY
Safe handling of the material without altering the original information
 - DURABILITY
Both of machine and design. The format must be supportable even when superseded
 - SIMPLICITY
Of design, use and maintenance
 - UNIVERSALITY
Ability to use the equipment anywhere in the world
8. The expectation of the participants regarding cooperation are summarized as follows:
9. Cooperation between archives and industry
- a) Supply of machines and spare parts for obsolete formats, and manuals for both obsolete and new equipment
 - b) A guarantee for the supply of spare parts including, subject to safeguards, access to lists of subsidiary suppliers of parts. The latter provision to cover for companies that go out of business
 - c) Co-ordination of information in order to prevent machines from becoming obsolete
 - d) Co-ordination between archives about modifications of equipment
 - e) Liaison with manufacturers for modification of equipment
 - f) Market research; trends of development; omnibus orders from the archives to the firms
 - g) Training of operators of the machines - in the archives or on site. Investigation of the use of video and film to supplement written instruction manuals
 - h) Information concerning trade embargos for some countries
 - i) Provision of product lists of companies and of names of contacts
Provision of lists of archives with names of responsible technicians
 - j) Test/research:
Centre for information on prototypes
Information on archives which are making tests

Concerning the tests, the different climatic and economic conditions should be considered to the same extent as the different types of machinery

- k) Information concerning special demands on machines for work in archives, especially with regard to archives in developing countries
 - l) Information concerning the basic equipment needed by archives
 - m) Information concerning environment requirements: personnel, test and measuring equipment
 - n) Exchange of publications
 - o) Establishment of an equipment pool
10. Cooperation with associations and institutions
- a) The contacts with the associations dealing with standardisation must be increased. In this context UNIATEC (Union Internationale des Associations Techniques Cinématographiques), EBU (European Broadcasting Union), AES (Audio Engineering Society), SMPTE (Society of Motion Picture and Television Engineers), BKSTS (British Kinematograph, Sound and Television Society) and others were mentioned
 - b) Contacts with scientists and research centres should be established to ensure that archival requirements are considered in the development of new technologies
 - c) The establishment of an independent Research Centre should be a long term goal
 - d) The exchange of information between the already existing research institutions (eg. broadcasting research centres) should be started immediately
 - e) All research in these areas should lead to a table of comparisons of the specifications of machines. Archives can then decide which particular machine suits their particular climatic, operational and archival needs
11. All the points listed here require urgent discussion and action
12. In order to achieve this, the decision was made to establish a Liaison Group, consisting of no more than two members from each NGO. These members should be recruited from the technical commissions or committees of the associations

13. For the time being the following were nominated:
 - on behalf of FIAF: Frantz Schmitt, Henning Schou
 - on behalf of FIAT: Fernando Bardon, Philippe Poncin
 - on behalf of IASA: Clifford Harkness, William D. Storm/
Dietrich Schüller
 - on behalf of ICA: Harald Brandes
14. These nominations have to be confirmed by each association or replaced by alternatives
15. In addition George Boston is to act as Chairman and Eva Orbanz as rapporteur in this Liaison Group
16. The main task of the Liaison Group will be the promotion of communication
 - to collect all information from the technical committees of each NGO about the needs of av archives
 - to contact all organisations which have to do with standardisation
 - to communicate between the archives and the industry
17. Later on representatives of the association dealing with standardisation may be co-opted
18. INA has invited the Liaison Group to a first meeting in Paris. This meeting is expected to take place on July 2/3, and the duration of the meeting is still to be decided. The goals and expectations mentioned here are to be refined during this meeting, a time-table and a work schedule are to be drafted and there has to be a discussion concerning the financing of all the planned projects
19. Carlos Arnaldo has been invited to participate in this meeting. It is hoped that Unesco will be able to fund the meeting; the decision on whether this is possible is still to be made
20. A second meeting is planned during the autumn of 1987 (September/October), during which a detailed description, including financial estimates, for the first concrete projects are to be made
21. Philippe Poncin will be responsible for dispatching the agenda of the meeting in Paris to all those invited to attend
22. He also kindly offered to place the INA at the disposal of the Liaison Group as a secretariat during the following 6 months (maximum)

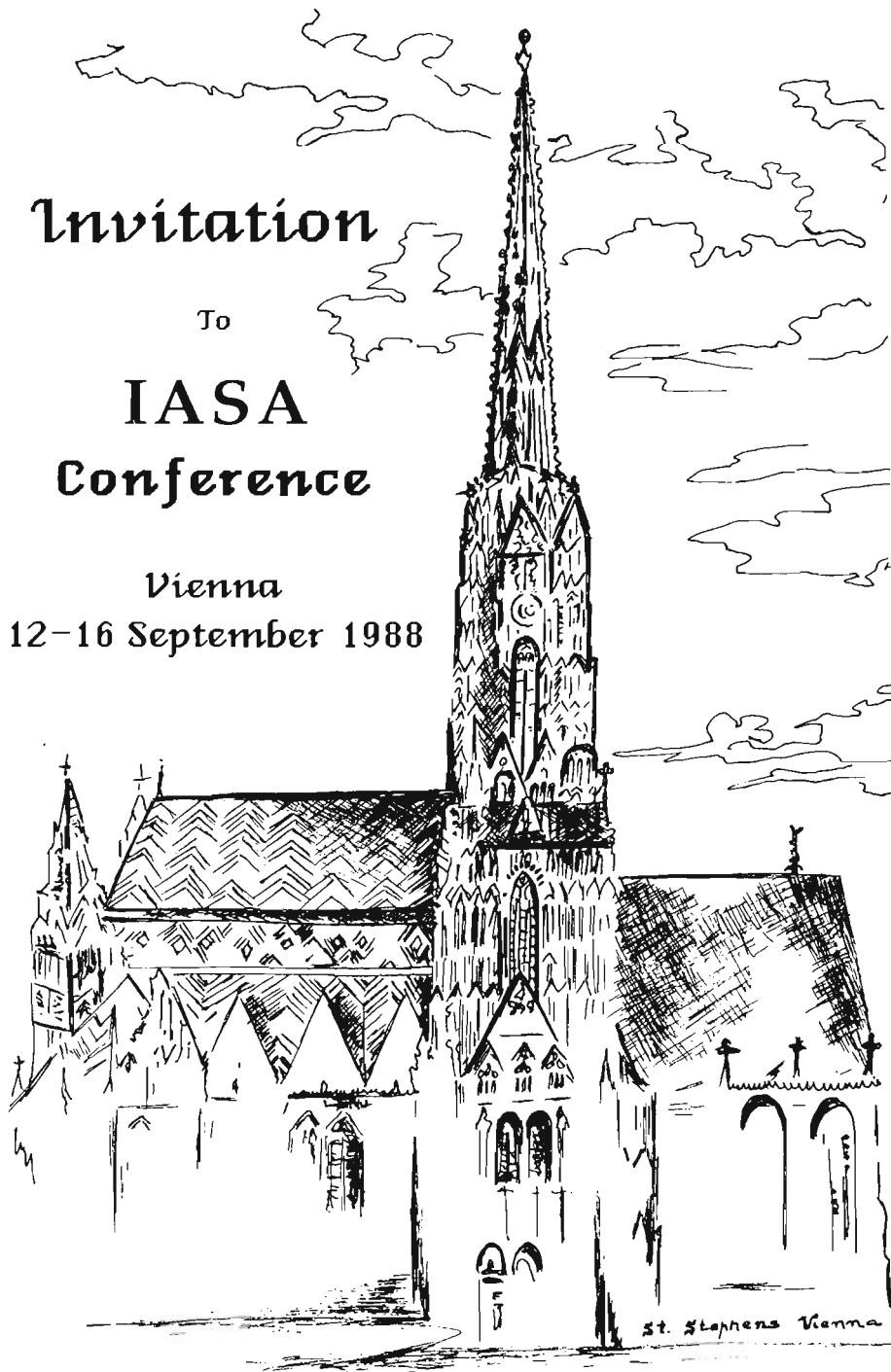
Invitation

To

IASA Conference

Vienna

12-16 September 1988



NEWS AND NOTES

THE MARR SOUND ARCHIVE, UNIVERSITY OF MISSOURI/ KANSAS

Ted Sheldon, Director of Libraries

The Marr Sound Archive at the University of Missouri-Kansas City is little more than a year old, but already we have a collection of 90,000 items which has as its nucleus a 45,000 item collection donated to the University by Professor Gaylord Marr of our Communication Studies Department. Unlike many sound recording collections, the Marr Sound Archive is intended as a 'social and cultural history of the twentieth century United States in sound.' Thus, it is a subject collection composed of nearly all types of sound recordings.

From the date of its creation, we in the University Libraries who administer and make available the contents of this collection have faced the need to catalog its pieces. Examination of available options such as the use of marked discographies and full MARC cataloging on the OCLC or RLIN bibliographic utilities yielded no acceptable alternative. Full MARC cataloging is beyond the realm of possibility given the immense time and cost factors involved. Marked discographies can not be shared. Other alternatives either did not provide sufficient detail to make the contents of the collection known to researchers, or the costs involved were prohibitive.

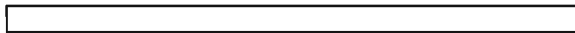
The results of a recently completed survey of sound archives compiled by the Associated Audio Archives Committee of the Association of Recorded Sound Collections graphically revealed that nearly all sound archives face the same dilemma. And as a result, cataloging of sound recordings in institutional archives is almost uniformly erratic, severely limited and often nonexistent. We are not alone.

Add to these serious concerns the need to catalog a substantial collection of sheet music, much of which relates directly to the sound recordings held in the archive. Ideally, researchers should be able to access both the needed sound recording and the pertinent sheet music. And since the sound recordings have been gathered as a subject collection, we need subject access to them.

These considerations have led us to pose several questions. How can a balance be achieved which will allow the timely cataloging of sound recordings with sufficient detail to meet the needs of researchers? Can such cataloging be performed at costs within the limits of generally available resources? Can subject headings be added to bibliographic records for sound recordings, and is that a desirable, useful or cost effective undertaking? How should a computer data base with sufficient internal integrity be constructed?

While our investigations are only now beginning, we hope to contribute to discussions of these important questions, and to arrive at practical solutions.

For further information, contact Ted Sheldon, Director of Libraries, University of Missouri/Kansas, 5100 Rockhill Road, Kansas City, Missouri 64110-2499



POMPI - POPULAR MUSIC PERIODICALS INDEX

The music press is an essential source of information for everyone interested in popular music and jazz, but until now there has been no publication offering access to the great variety of writing appearing regularly in periodicals.

POMPI is devoted exclusively to the indexing of articles relevant to research into pop and jazz, from performers, fashion and popular culture to technological developments, films and the media. Interviews and features are the major categories of material covered, with many bibliographies, discographies and obituaries also included.

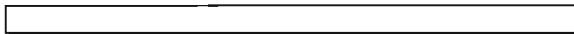
Entries are prepared to high bibliographic standards, and arranged in alphabetical order under subject headings - personal name, corporate name or subject term. Cross-references assist in locating information and indicate related headings. In addition to encouraging detailed research on particular subjects, POMPI provides an informative overview of the contemporary music world.

Each issue of POMPI covers more than 60 periodical titles embracing the specialist recording press and mainstream pop papers, research journals and more general socio-cultural periodicals such as *New Society* and *The Listener*. In addition to encouraging use of existing library holdings, POMPI's value is enhanced by a National Sound Archive service providing photocopies of articles, and computerised searches.

POMPI appears annually, beginning with two double issues spanning the years 1984-88. Subsequent issues will appear within 6 months of the last-indexed item, providing the currency essential to research in this area of rapid change.

POMPI is published by the British Library National Sound Archive.

For further information, contact Chris Clark or Andy Linehan, Curators of Jazz and Popular Music, British Library National Sound Archive, 29 Exhibition Road, London SW7 2AS UK.



ARSC MEETING - TORONTO 1988

The 1988 Association for Recorded Sound Collections (ARSC) meeting was held from May 25-28 at the University of Toronto. There has always been a significant number of Canadian collectors and institutions active in ARSC and thus their meetings are occasionally held in Canada. This year the Canadian Association of Music Libraries (CAML) also held their meeting in the same location with considerable overlap with ARSC sessions and participants. CAML had 45 registrants and ARSC had 130 participants in these meetings.

ARSC continues to bring together a most eclectic and fascinating array of experts in recorded sound that this year included the introduction of electrical recordings in Canada, mechanical sound instruments, Guisepppe Creatore, - the bandmaster, nursery rhymes in popular music, the NBC symphony orchestra, latin american music, recorded comedy, and much more. Many of these experts rarely have the opportunity to get together with others who share their devotion and knowledge of recorded sound and consequently the exchanges afforded by ARSC meetings are invariably occasions for great trading of anecdotes, new discoveries, and information. Many of the North American institutional sound collections are also represented and present another dimension to this group that is brought together by their common devotion to sound recordings.

The sessions on technology at ARSC conferences are always most fascinating and instructive. The critical and well-developed audio sensibilities of the ARSC membership make these sessions very sceptical of new technologies. This year digital audio tape as a conservation format was referred to repeatedly as not yet being considered acceptable as a conservation format. The lack of technical standards, conflicting formats and equipment, and no proven reliability of the medium were cited as the reasons for this consensus. A paper on "Recording Tape - Problems in Storage, Preservation and Restoration" by Steven Smolian provided an excellent and thorough primer on all aspects of magnetic tape and hopefully might be published eventually in some format.

This conference was also the occasion for the release of the final report on "Audio Preservation: A Planning Study" which was a research project on the current state of affairs in the United States by the Associated Audio Archives Committee of ARSC. This 862-page report is now available (\$42.95 postpaid to any continental United States address or \$37.00 plus actual postage costs to foreign addresses). It constitutes a most impressive study of all imaginable aspects of audio archives in the United States and a publication notice is attached.

A report on IASA activities was given at the ARSC meeting and a significant number of ARSC members are also IASA members. There was interest in closer collaboration between IASA and ARSC and hopes for a future joint meeting or technical symposium were expressed.

Ernest J. Dick, National Archives of Canada

FINAL REPORT ON "AUDIO PRESERVATION: A PLANNING STUDY"

The Final Report on "Audio Preservation: A Planning Study," a research project carried out by the Associated Audio Archives Committee of the Association for Recorded Sound Collections with funding from the National Endowment for the Humanities is now available. The 862-page report, printed single-sided on paper punched for three-ring binders, costs \$42.95 postpaid to any continental United States address or \$37.00 plus actual postage cost (surface or air available) to foreign addresses.

The report is a preliminary, working, reference document and consists of a summary and three appendices. Appendix I contains more than 60 major conclusions and recommendations. Appendix II contains a detailed descriptions of the project and eleven individual research assignments carried out by project participants. The storage and handling report contains, for example, a 31-page outline and index of storage and handling factors, recommendations on storage conditions for cylinders, discs, and tapes, and a bibliography on library construction. Other topics reported on in greater or lesser degree include Documentation, Standards, Bibliographic Control, Dissemination, Consortia Potential, Technical Considerations, Education and Training, Legal Aspects, Priorities, Disaster Preparedness, and a Professional Organization for Sound Archivists. Appendix III consists of several compilations: a preliminary Glossary (of 50 pages), and index of terms (137 pages), the responses of more than 35 sound archives to a resources questionnaire sent out during the project, and a bibliography of over 2,500 citations.

Copies may be ordered from Elwood McKee, 118 Monroe Street #610, Rockville, MD 20850. Payment in advance is required (except for foreign postage, which will be billed). Checks should be made out to ARSC--Association for Recorded Sound Collections.

INTERNATIONAL CONFERENCE ON EDUCATION AND TRAINING WITH RESPECT TO RESTORATION AND CONSERVATION TECHNIQUES IN OCTOBER 1988 IN THE NETHERLANDS

On October 18, 19 and 20 next an International Conference on "Education and Training" with respect to Restoration and Conservation Techniques will be held in Zutphen (the Netherlands). The Conference will take place simultaneously with the 2nd International Trade Fair on restoration and conservation with respect to Buildings, (Natural) monuments, Works of art, Books and Archives RESTAURATIE '88, where approximately 150 companies and institutions will present themselves.

The International Conference will be held under the auspices of Europa Nostra, while it is actively supported by the World Monuments Fund (New York), International Council on Monuments and Sites ICOMOS

(Paris), Association for Preservation Technology APT (Ottawa), Union of European Historic Houses Associations (Paris), International Council of Museums ICOM (the Netherlands), UNESCO (Paris) and the Netherlands Association of Monumentexperts NVMZ.

The aim of the Conference is to review present potential and future needs with respect to "Education and Training" in Restoration and Conservation Techniques in the field of: a) Buildings, b) Monumental Parks and Gardens, c) Works of Art and d) Books and Archives.

The workshops (4) will be divided accordingly.

Furthermore it is intended to formulate guidelines for urgent future action by discipline as mentioned, and related areas will also be identified.

Sub-themes to be discussed are:

- Specialization in Professional Training
- The Goals of Technical Training
- Training in Survey and Diagnosis
- Transfer of Appropriate Technology
- Partnership with Developing Countries

Concise papers will be presented by various internationally well-known experts, representing associations, governments, but also educational institutes.

The Conference consists of 2 Plenary Sessions and 1 day Workshops; also working-visits to Palace Het Loo and the International Trade Fair RESTAURATIE '88 will be incorporated.

The participation fee amounts to Nfl 550,-- (exc. 20% VAT).

Approx. 300 participants are expected.

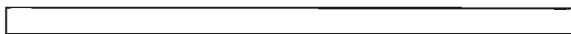
KLM Royal Dutch Airlines is the official carrier of the Conference.

Hotel accommodation is plentiful.

Information and reservations:

RESTAURATIE '88 Conference
PO Box 80
7200 AB ZUTPHEN
(The Netherlands)

Tel: (31) 5750 - 1 51 00



REVIEWS AND RECENT PUBLICATIONS

REVIEWS:

Basart, Ann P.: *The sound of the fortepiano. A discography of recordings on early pianos.* Berkeley, CA: Fallen Leaf Press, (c) 1985. xiv, 472 pp., (Fallen Leaf reference books in music, ISSN 8755-268X. No.2.), ISBN 0-914913-01-8: \$29.00 (pbk.).

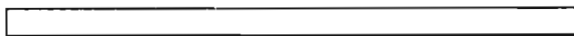
The notion that the historic forte piano was not just an inferior stage in the development of the modern pianoforte is not new. It is, rather, a separate type of instrument comparable to the historic violin as opposed to the modern violin, which has steel strings, prolonged fingerboard, and stronger soundpost and bass-bar. Today's record buyers know about those 'early' recordings of Paul Badura-Skoda and Jörg Demus playing on period fortepianos, but only a few know of similar recordings by Lili Kroeber-Asche, Ralph Kirkpatrick, and Fritz Neumeyer who recorded the sound of the historic hammer keyboard in the early 1950s. The earliest recording was made in 1928 only a few years before the sounds of clavichord and harpsichord were propagated throughout the world via gramophone recordings by Violet Gordon Woodhouse and Wanda Landowska. At that time, Charlotte Kaufmann recorded the Menuet from Haydn's Sonata in E flat Hob. XVI:49 on an unspecified fortepiano made in 1790. This recording, in its artificial fragility of articulation, gives a convincing and touching argument for the historic instrument.

Ann Basart's discography is not the first devoted to the realm of historical keyboard recordings. Already in the *Katalog zu den Sammlungen des Händel-Hauses in Halle. 5. Teil. Musikinstrumentensammlung. Besaitete Tasteninstrumente.* (Halle an der Saale, 1966) there was a 16-page listing of international recordings using historical keyboard instruments (not just pianofortes). In 1972, Wolfgang Laade published his annotated discography *Klangdokumente historischer Tasteninstrumente. Orgeln, Kiel- und Hammerklaviere* (Zürich: Musikverlag zum Pelikan, 1972) which is less exact in its bibliographic/discographic method than this new American publication. In 1984, Jane Lurene Buttars submitted a doctoral thesis titled *Early-piano discography, 1951-1983. Recordings of pianos built before 1855 or modern reconstructions* (D.M.A., University of Colorado, Boulder, 1984 - available as UMI-book on demand) which is a disappointingly scanty listing covering no more than thirty-nine pages.

In this situation, the large discography by Ann P. Basart is a welcome tool. The author has attempted to include in her discography all commercially produced recordings issued anywhere in the world with the sound of a pianoforte built between 1720 and 1875 or of a reproduction of such a piano. Data of about 340 recordings have been collected, with the largest proportion of recordings dating from the late 1960s to 1984. Despite its aim, the discography still omits several recordings which have been released only in Europe. It is

quite obvious that the author did not have direct access to European discographical sources. Still, the amount of information assembled is large and consistently presented. A great advantage is that all recordings are accessible from various points of access: There are listings by composer/title, pianists, piano manufacturers, which is in fact a listing by individual pianos and not just by makers, and finally a listing by label and record number. Quite useful are several indexes: the index of works by performance medium, the index of performers other than pianists, the index of titles of record albums, and - the two most important indexes: the index to pianos by date, and the index of piano collections and owners. Similar discographical projects will have to be judged by the variety of access points this discography offers for its users. Of course, the book is not perfect. There are some wrong bits of information in addition to the lack of the occasional European issue. But it is in the nature of a reference tool that its users find its shortcomings very easily. This reference tool has much more to offer than shortcomings. Congratulations.

Martin Elste



Hunt, John: *From Adam to Webern: the recordings of von Karajan.* ((And:)) Pettitt, Stephen J.: *Philharmonia Orchestra: complete discography 1945-1987. Two separate discographies.* Edited by John Hunt. London: John Hunt, 1987. 537 pp., illus., 21 x 15 cm, ISBN 0-9510268-1-X: £9 (pbk.).

Available from John Hunt, Flat 6, 37 Chester Way, London SE11 4UR, Great Britain (Price inclusive of p & p, overseas £13.00).

'Two separate discographies' the title page tells us and if one's first reaction is that it is a little strange to bind together discographies devoted to, on the one hand, an eminent conductor, and on the other, a famous orchestra, it needs no more than a moment's thought to recall the important part played by Karajan in the recording history of the Philharmonia Orchestra.

This relationship is naturally mentioned by John Hunt in his foreword to the two discographies where he, of course, refers to the orchestra's founder, Walter Legge whose activities as a record producer have been the subject of a closely related work, Alan Sanders: *Walter Legge - a discography* (published by the Greenwood Press in 1984).

The Karajan part of the book is quite small at 130 odd pages compared to the 400 or so devoted to the orchestra but this is by any standards a substantial achievement by a single conductor. It is perhaps not entirely out of order to suggest that the range of composers represented is not very wide and that Karajan's repertoire is somewhat conservative, indeed in terms of recordings there is

quite a high proportion of 'potboilers'. Nevertheless, apart from the two piano concertos composed and played by Kurt Leimer, which were no doubt a special case, there are some adventurous choices regarding contemporary music.

Karajan was the first to record Balakirev's first Symphony in a famous performance with the Philharmonia which straddled to the last days of 78 rpm discs and the early years of LP. Bartók's 'Music for strings, percussion and celesta' was almost a complete stranger to discs when Karajan's 78s appeared, Honegger's Symphonies Nos 2 and 3 recorded in 1969 were something of a surprise as were Nielsen's and Rousell's 4th, the latter on 78s.

If the titles of such exceptions cannot be greatly extended then it is, no doubt, partly because much time has been devoted to successive versions of such standard classics as the Beethoven and Brahms Symphonies, most of which have received as many as four studio recordings. It is here that the discography is especially valuable in steering a way through the various catalogue numberings and renumberings which might otherwise baffle even those well-versed in the ways of the record companies.

The Karajan discography is arranged in alphabetical order by composer. Three clearly laid-out columns are respectively devoted to title together with recording date, the name of the orchestra concerned and finally record label and catalogue numbers.

Recording dates, even if not always precise ones, have been discovered for even Karajan's earliest Polydor discs made in pre-war days or the war years, a few, exceptionally, with the Amsterdam Concertgebouw Orchestra. Titles are reasonably given in short form but something better than merely 'Quintettino' should have been provided for Boccherini's 'La musica notturna di Madrid.' Unfortunately record numbers are confined largely to issues in Great Britain (and this applies also to the Philharmonia discography) save where recordings were published or reissued only abroad. The multiplicity of record numbers certainly makes life difficult for discographers but given the considerable interest and activity in such compilations in the U.S.A., catalogue numbers relevant across the Atlantic ought always to be quoted, while in Karajan's case German numbers would seem a pre-requisite.

The Karajan discography is extended by the inclusion of a number of 'off the air' or 'pirate' recordings. If there are omissions here or in the listing of studio recordings they do not come readily to mind.

The lengthy discography by Stephen Pettitt devoted to the Philharmonia Orchestra is by way of being a supplement to his recent (1985) history of the orchestra, and in compiling the discography he has had access to the files of EMI and the orchestra's own ledgers. John Hunt has assisted in an editorial capacity.

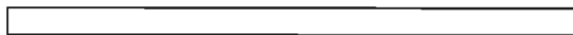
This discography is laid out in similar manner to the Karajan with its three columns devoted to composer/title, conductor and name/s of other artists and record label with catalogue numbers.

In this discography, however, the arrangement is chronological - by date of the recording sessions. This makes an entirely satisfactory approach, demonstrating as it does an important aspect of the orchestra's development and its relationship with its various conductors and other artists. Not the least interesting aspect is that the reader learns of a considerable number of recordings which have never been published, rather more in earlier days than recently. Some of these were abandoned before completion, no doubt for a variety of reasons, but there must be a fair number which still exist in publishable form, indeed some have in fact been unearthed and published in recent years. Not everything would still be of interest, but Constant Lambert's 'Aubade heroïque' (yet to appear on disc) conducted by the composer sadly does not feature in a compilation devoted to Lambert as a conductor due from E.M.I.

An attempt has been fairly successfully made to quote reissue numbers for LPs transferred from 78rpm originals or from early LPs. Some such numbers have not been tracked down and Eugene Goossens's Oboe Concerto played by Leon Goossens lacks its Unicorn number (RHS 348), Margherita Carosio's aria from Donizetti's *Betty* has been reissued in Italy while the sound-track recordings of Walton's music for the Olivier *Henry V* and *Hamlet* appeared in Britain on the RCA label as well as on HMV.

These are however small blemishes on what must be regarded as an entirely successful survey of a prodigious recording achievement by a great orchestra and its many conductors. It should be an essential acquisition for all who have a long-term interest in such matters.

Eric Hughes



Kanski, Józef: *Dyskografia chopinowska. Historyczny katalog nagranych płytowych.* / *A Chopin discography. A historical catalogue of recordings.* Kraków: Polskie Wydawnictwo Muzyczne, 1986. 108 pp., illus., 24 x 17 cm, (= Documenta Chopiniana. Tom 3.), ISBN 83-224-0340-2: zł 300.00 (cloth).

Eine Chopin-Diskographie auf etwas über einhundert Seiten? Das Vorwort erklärt den geringen Umfang: Józef Kanski hat sich im wesentlichen auf die pre-LP-Jahre beschränkt, aber diese Erfassungsgrenze keineswegs konsequent gehandhabt. Es ist schade, dass auf diese Weise die Diskographie ein wenig an Seriosität verliert. Von Armand Panigels grundlegender *Discographie generale L'oeuvre de Frédéric Chopin* (Paris: Editions de la Revue Disques 1949) unterscheidet sich das polnische Buch eigentlich hauptsächlich nur durch die chronologische Sortierung der Aufnahmen innerhalb jeder

Komposition bzw. Werkgruppe. Panigel hatte dagegen die Einspielungen einer jeden Komposition alphabetisch geordnet. Natürlich sind einige Irrtümer der alten Diskographie beseitigt, dafür aber Detailinformationen weniger präzise angegeben. Nützlich ist das Interpretenregister, das auf die Werke verweist - eine sinnvollere Lösung als die bloße Seitenauflistung.

Martin Elste



Kiner, Larry F.: *The Rudy Vallee discography.* Westport, Ct.; London: Greenwood Press, 1985. xxi, 190 pp., illus., 25 x 16 cm, (= Discographies. No.15.) ISBN 0-313-24512-6: £35.00 (cloth).

This extensive compilation presents a discographical overview of Rudy Vallee's career as an entertainer from 1921 to the 1980s. Only recordings which were later commercially released are listed. Kiner indicates in his introduction that hundreds of private recordings, transcriptions of radio broadcasts, and sound tracks are excluded; those that were commercially released represent just about one-fourth of the more than 150 entries in this compilation. A description of a new LP which Rudy was working on at the age of 84 (outlined in Kiner's Addenda), indicates that future releases will probably be culled from this material. Thus, this discography presents a broader picture of Rudy's career than his brief preface, in which he declines the title of recording star and pays homage to radio and the broadcast medium for his success, indicates.

The discographical entries are not numbered but are arranged chronologically dating from 7 December 1921 (a private recording of a saxophone solo made at Columbia Recording Studios) to circa 1970-1973 (a Treasure LP featuring Rudy narrating Grimm fairy tales), supplemented by a note describing various radio programs broadcast between 1971 and 1985 which featured transcriptions of commercial radio programs and Armed Forces radio programs. Each entry includes the date of performance; the type of performance (recording session, radio broadcast, private recording, etc.); the place of performance plus, if available, the title of the movie or radio program; the featured performer and/or performing group; a list of the instruments used in the performance, when known, for LPs the album title; the song title (a list of song titles for LPs); the composer(s) and lyricist(s); the size and speed of the record; the label name and catalog number of the original recording; the label name and catalog number of reissues; the matrix number; and the take designation. For numerous sessions the orchestra personnel and vocalists are also listed. Included are Rudy's early saxophone recordings, the Vallee repertory on Victor and HMV (England), the Victor and Columbia subsidiaries' recordings, recordings made for Hit of the Week and various other companies, recordings made for Columbia in London and for Decca and Varsity in New York City, recordings of the U.S. Coast Guard Marching Band, some of which were also issues as V-Discs, as

well as private recordings, transcriptions, and moving-picture sound tracks which were later issued commercially.

There are several useful indexes. The 'Conductor and Accompanist Index' and 'Co-Star and Vocalist Index' list many famous performers of the period including George Gershwin accompanying Rudy Vallee and his Connecticut Yankees on a radio broadcast of the Fleischmann Hour (Mark-56 613-A) and a sketch 'The Great Profile vs. the Vagabond Lover,' featuring guest John Barrymore with Rudy on The Sealtest Show ((Totem 1027). The indexes of 78 rpm singles and LP albums are arranged by label name and catalog number. Page numbers are omitted from these indexes, however, so that the user must refer to the 'Index of Song Titles' to locate the entry. Since most song titles were recorded numerous times, using the 78 rpm and LP indexes to locate a specific performance is rather time-consuming. A supplemental index of motion pictures in which Rudy appeared; a short essay describing his radio series; a list of the Connecticut Yankee musicians, arranged by instrument; and a bibliography are also included.

Rudy Vallee died in July 1986. This discography, which includes Thielemann's biographical sketch and many illustrations that complement the text provides a portrait of and, in a sense, a memorial to Rudy Vallee, the entertainer. The discography also illustrates the symbiotic relationship of the broadcast medium and the recording industry. For Rudy Vallee fans and for archives of popular music and broadcasting, Kiner's work is a valuable addition.

Marie P. Griffin



Mathews, Emrys G.: *John McCormack. A centenary discography.* Llandeilo, Dyfed: by the author, (c) 1986. vi, 73 pp., illus., 21 x 16 cm, no ISBN: no price given (spiral-bound).

Available from E.G. Mathews, Neuadd Deg, Penybanc, Llandeilo, Dyfed SA19 7TA, United Kingdom.



Worth, Paul W. and Jim Cartwright: *John McCormack. A comprehensive discography.* New York; Westport, Connecticut; London: Greenwood Press, 1986. lii, 185 pp., 24 x 16 cm, (= Discographies. No.21.), ISBN 0-313-24728-5: £35.00 (cloth).

More than forty years after the death of this distinguished tenor, the recorded art of John McCormack has still many admirers, mainly in the United Kingdom and North America. A token of this appreciation is

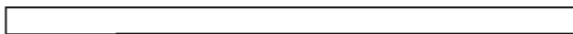
the relatively large amount of discographical literature about the singer. The first McCormack discography was an appendix to the biography by Lily McCormack and dates back to 1949. A few years later, Leonard F.X. MacDermott Roe published his *John McCormack - The complete discography* (London: Charles Jackson, 1956) with an altered second edition in 1972 (Lindfield: The Oakwood Press). Meanwhile two further discographies have been compiled and published in the same year.

The little spiral-bound book (with hard covers) by Emrys G. Mathews is a work that clearly shows the author's love of his chosen subject. More than seven hundred and sixty recordings are listed in chronological order giving company recorded for, date of recording, matrix number, take number, title of piece recorded, additional artists, issue number, reference to couplings, and even speed. The author has confined his listings to the pre-LP phonograms. A variety of type-faces have been used in order to distinguish between different types of phonograms. In addition to the discographical section, there are indices of titles, performers, couplings, and equivalent issues. This wealth of information is not easy to read, particularly as a variety of addenda and corrigenda are inserted at various places.

The American discography is a much more comprehensive enterprise. Apart from being a complete discography listing reissues up to the present in addition to the original shellacs, there are also a substantial essay on 'The art of John McCormack and the phonograph' and critical notes about extant recordings. The main part of the discography is, as in the case of the book by Mathews, a 'Recording chronology' arranged by sessions. Though substantially the same as the Mathews listing, it contains more pieces of information with respect to the compositions recorded and to later reissues. The information in this main part is easily accessible through a series of indices: an alphabetical listing of titles, a detailed listing of the contents of microgroove reissues, an artist index, and a series of useful appendices including a bibliography. If you look for a composer index, though, you won't find one - composers, lyricists, librettists, arrangers, and translators have been included in what has been titled the 'artist index'.

The better is always the enemy of the good, and thus, even at the substantially higher price, the Greenwood book is to be preferred.

Martin Elste



Zander, Horst: *Die digitale Audiotechnik. Grundlagen und Verfahren.* Berlin (West): Drei-R-Verlag, 1987. 278 S., 21 x 15 cm, ISBN 3-925786-01-5: DM 59.00 (brosch.)

In den letzten Jahren ist der Umgang mit Tonträgern gekennzeichnet vom massiven Einbruch der Digitaltechnik, eine Entwicklung, die auch vor den kleinsten Sammlungen von Schallträgern nicht halt macht. War es in den Siebzigerjahren noch einem relativ kleinen Zirkel von Aufnahmestudios vorbehalten, sich mit dieser neuen Technik näher zu beschäftigen, so hat doch zumindest seit der Einführung der Compact Disc 1982/83 die Digitaltechnik in die Konsumelektronik und damit auch in nationale Schallarchive, Musikbibliotheken etc. Eingang gefunden. Mit der Einführung von R-DAT wird auch demnächst ein weitverbreitetes digitales Aufnahmeformat zur Verfügung stehen. Angesichts dieser Entwicklung ist Horst Zanders Buch ein willkommenes und wichtiges Werk. Es überschaut die Grundlagen der digitalen Audiotechnik von der Signalabtastung bis zur Signalrekonstruktion, und beschreibt in seinem Hauptabschnitt die heute gängigen Verfahren. Hierbei wird etwa der CD ebenso breiter Raum gewidmet wie anderen digitalen Speicherformaten bis hin zu R-DAT und S-DAT. Digitale Filter, Effektgeräte und Synthesizer bis hin zur MIDI-Schnittstelle werden ebenfalls technisch genau beschrieben.

Das Buch ist keine populärwissenschaftliche Darstellung des Themas, sondern wendet sich in erster Linie an den Techniker, indem es ihm die Möglichkeit gibt, sich auf diesem neuen Gebiet in einem zusammenfassenden Werk gründlich zu informieren, wobei eine ausführliche Bibliographie von zusätzlicher Hilfe ist. Hierbei wird sicher von vielen Technikern der Umstand, dass nunmehr ein derartiges Buch in deutscher Sprache vorliegt, besonders geschätzt werden. Aber auch der technisch interessierte Laie wird mit einigem Nutzen darin blättern, vor allem im äusserst hilfreichen Glossar, das die in dieser Branche üblichen englischen Termini erklärt und die entsprechenden, viel weniger bekannten deutschen Equivalente - sofern existent - anführt.

Die brennendste Frage allerdings, die sich für Schallarchivare mit der Digitaltechnik verbindet, nämlich die nach der Haltbarkeit der Träger, ganz zuschweigen nach der 'Haltbarkeit' der Formate, liegt ausserhalb des Publikationsinteresses dieses Werks. Trotzdem wird es sinnvollerweise in Schallarchiven aufzuliegen haben.

Dietrich Schüller

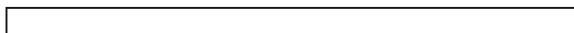
P.S. Ist es Zufall oder postmoderne Absicht? Die Typographie des Buches in ihrem typischen Schriftbild angelsächsischer technischer Zeitschriften der Vierzigerjahre steht in merkwürdiger Diskrepanz zu seinem höchst aktuellen Inhalt.



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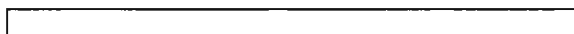
Andrews, Frank: *The Edison phonograph. The British connection.* Rugby: The City of London Phonograph and Gramophone Society, 1986. xx, 140 pp., illus., 22 x 15 cm, ISBN 0-90083-51-0: no price given (pbk.). ISBN 0-90083-52-0: £12.50 (hardcover)

Available from CLPGS Bookshelf, 134 Railway Terrace, Rugby, Warwickshire CV 21 3HN, Great Britain.

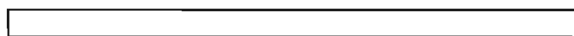


Contini, Marco: *Fonografi e grammofoni. Phonographs and gramophones.* Milano: BE-MA Editrice, 1987. 143 pp., illus., 17 x 14 cm, ISBN 88-7143-058: LIT 15 000 (pbk.).

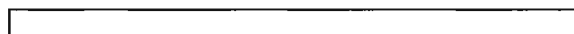
A picture book with brief texts in Italian and English.



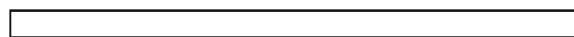
100 Jahre Schallplatte. Von Hannover in die Welt. Beiträge und Katalog zur Ausstellung vom 29. September 1987 bis 10. Januar 1988 im Historischen Museum Am Hohen Ufer, Hannover. Hamburg: Polygram Deutschland GmbH, (c) 1987. 175 S., Abb., 21 x 17 cm, ohne ISBN: DM 10.00 (brosch.). Erhältlich vom Historischen Museum Am Hohen Ufer, Pferdestr.6, D-3000 Hannover 1, BRD.



Eisenberg, Evan: *The recording angel. Explorations in phonography.* New York et al.: McGraw-Hill Book Company, (c) 1987. 264 pp., 22 x 15 cm, ISBN 0-07-019051-8: \$17.95 (cloth)

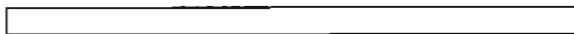


Fagan, Ted and William R. Moran: *The encyclopedic discography of Victor recordings. Matrix series: 1 through 4999. The Victor Talking Machine Company, 24 April 1903 to 7 January 1908.* New York, Westport, London: Greenwood Press, 1986. liv, 648 pp., illus., 24 x 16 cm, ISBN 0-313-25320-X: £31.40 (cloth).



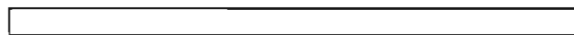
**Jahrbuch des Staatlichen Instituts für Musikforschung
Preussischer Kulturbesitz. 1983/84. Hrsg.v. Dagmar Droysen-Reber
u. Günther Wagner. Kassel: Merseburger, 1987. 144 S., 24 x 17 cm,
mit Schallfolie, ISBN 3-87537-209-3: DM 42.00 (brosch.).**

Enthält den Aufsatz von Martin Elste: Von der Partiturwissenschaft zu
einer Klangwissenschaft. Überlegungen zur Schallplattenforschung.
(S.115-144).



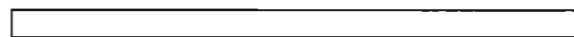
**Jasper, Tony: *The top twenty book. Fourth edition. The official
British record charts 1955-1987.* London et al.: Javelin Books, 1988
478 pp., 20 x 13 cm, ISBN 0-7137-2036-9: £5.95 (pbk.), ISBN 0-7137-
2035-2: £12.95 (hardback).**

A statistical survey of the British singles charts from 1955 onwards.
This updated edition has the added bonus of an index of song titles.



**Liliedahl, Karleric: *Svenska akustiska grammofoninspelningar
1903-1928.* Stockholm: Arkivet för ljud och bild, 1987. ((iv,)) xii,
789 pp., illus., 21 x 15 cm, (= Svenska diskografier. 3.), ISSN 0348-
8624: no price given (pbk.).**

An attempt to catalogue the acoustic recordings of Swedish repertory
and/or Swedish artists issued by record companies world-wide (with
the exception of The Gramophone Company and sister companies whose
records were listed by Liliedahl in a previous discography back in
1977). The listings are in numerical order by record number under
each company. There is an index of artists and an index of titles.



**Mordden, Ethan: *A guide to opera recordings.* New York, Oxford:
Oxford University Press, 1937. xii, 308 pp., 24 x 17 cm, ISBN 0-19-
504425-8: \$25.95/£16.95 (cloth).**



**Notizie dall'Archivio Sonoro della Musica Contemporanea.
Roma: Istituto di Ricerca per il Teatro Musicale i (1987) No. 1
bimestrale.**

Nyéki-Körösy, Maria: *Les documents sonores. Précis de discothéconomie.* München, London, New York, Oxford, Paris: K.G. Saur, 1987. 379 pp., illus., 30 x 21 cm, ISBN 3-598-10435-9: DM 68 (broché).



Ryan, John: *The production of culture in the music industry. The ASCAP-BMI controversy.* Lanham, MD, New York, London: University Press of America, (c) 1985. ix, 159 pp., 22 x 14 cm, ISBN 0-8191-4743-5: \$12.00 (pbk.), ISBN 0-8191-4742-7: \$26.00 (cloth).



These recordings are available from Donemus, Paulus Potterstraat 14, NL-1071 CZ Amsterdam, The Netherlands:

Otto Ketting: *Symphony for saxophones and orchestra.* Netherlands Saxophone Quartet/Concertgebouw Orchestra/Bernard Haitink, cond.; Reinbert de Leeuw: *Abschied, symphonische Dichtung*; Tristan Keuris: *Sinfonia.* Rotterdam Philharmonic Orchestra/Edo de Wart, cond. Composers' Voice Highlights: CVH 1 (1 LP).



Willem Piper: *Symphonies Nos. 1-3, Piano concerto, Violin concerto, Six symphonic epigrams, Cello concerto, Six adagios.* Solists/Rotterdam Philharmonic Orchestra/various conductors. Composers' Voice Special: CVS 1987-3 (2 LPs).



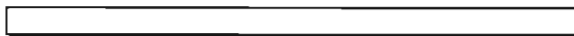
Reissues of historical recordings of special interest:

Benno Moiseiwitsch. *The early recordings 1916-30.* Archive Piano Recordings: APR 7003 (2 LPs). Contains 29 pieces by Beethoven, Brahms, Chopin, Debussy, Mendelssohn Bartholdy, Scarlatti, and others.



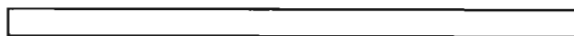
Benno Moiseiwitsch. *The complete Rachmaninov recordings 1937-48.* Archiv Piano Recordings: APR 7004 (2 LPs). Contains Piano Concertos Nos. 1 and 2, Rhapsody on a theme of Paganini Op.43, 5 Preludes, and 3 other pieces.

Both recordings are available from Archive Piano Recordings, P.O. Box 57, Horsham, West Sussex RH13 7YZ, Great Britain, or from specialist record dealers.



Ludwig van Beethoven: *Symphonie Nr.3 Es-dur op.55 ('Eroica').* The Symphony Orchestra/Albert Coates, cond. (Recording of 1926); Albert Coates: *Klein Freddie.* S.A.U.K. Studio Orkes/Anton Hartmann, cond. GSE Claremont: 78-50-22 (1 LP).

Available from Graham Sound and Electronics (PTY) Ltd, P.O. Box 179, Claremont 7735 C.P., South Africa.



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2. IASA Directory of member archives, Second edition compiled by Grace Koch, 1982 ISBN 0 946475 00 8	60	90
3. Sound archives: a guide to their establishment and development, edited by David Lance, 1983 ISBN 0 946475 01 6	75	105
5. Selection in sound archives, edited by Helen P. Harrison, 1984 ISBN 0 946475 02 4	60	90

Prices include postage by surface mail, Orders, together with payment shall be sent to the Treasurer Anna Maria Foyer, Sveriges Riksradio, Programarkivet, S 105-10 Stockholm, Sweden. Checks shall be made payable in Swedish Kronar to the International Association of Sound Archives.

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