

Report of the Education and Standards Committee

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I. STANDARDS RELATING TO ACQUISITIONS

A. SELECTION OF NEW RECORDINGS (Issued commercially or otherwise in many identical copies)

1. MANUFACTURERS AND DEALERS

a. Technical questions of recording and rerecording

1. General aesthetic questions

This report will be confined to the controversial questions concerning the ways in which recording is done. One of the best articles on this subject is Glenn Gould's, "The Prospects of Recording", in High Fidelity, April 1966, pp. 46-63. That article is particularly valuable not only because of what Gould has to say, but because of the marginal comments by various key figures in the worlds of music, recording, and mass communication.

In the controversy regarding the question of whether musical recordings should be made in the concert hall or in the recording studio, Gould takes the position that the future of recording lies in the recording studio for the following reasons:

1. The demand by Americans and Western Europeans for analytic clarity, immediacy, and almost tactile proximity -- characteristics which are elusive in the concert hall (p. 48).
2. The repertoire available in recent years, namely, Renaissance and baroque music, which was never intended to be performed in large concert halls. Moreover, the demand that this repertoire be performed as closely as possible according to the intentions of the composer. This demand can be met only with the help of musicologists (pp. 49-50).
3. The demand on the part of the listener, the performer, and the composer for perfection, if possible. This tempts the recording industry to rerecord segments of a performance and to make the final recording out of the best parts of all "takes" by splicing (pp. 51-53).
4. The fact that electronic reproduction has had a great influence on composers. Gould names Hindemith, Martin, Pousseur, and Schoenberg. Of course, this influence is particularly strong on composers of electronic music.

Concerning electronic music, Milton Babbitt, one of its pioneers, comments:

Somebody will ask those of us who compose with the aid of computers: 'So you make all these decisions for the computer or the electronic medium but wouldn't you like to have a performer who makes certain other decisions?' Many composers don't mind collaborating with the performer with regards to decisions of tempo, or rhythm, or dynamics, or timbre, but ask them if they would allow the performer to make decisions with regard to pitch and the answer will be 'Pitches you don't change'. Some of us feel the same way in regard to the other musical aspects that are traditionally considered secondary, but which we consider fundamental. As for the future of electronic music, it seems quite obvious to me that its unique resources guarantee its use, because it has shifted the boundaries of music away from the limitations of the acoustical instruments, of the performer's coordinating capacities, to the almost infinite limitations of the electronic instrument. The new limitations are the human ones of perception (High Fidelity, April 1966, p. 58).

The final marginal comment, also by Babbitt, is very convincing as to the significance of recordings in the future:

We have all been affected as composers, as teachers, as musicians by recordings to an extent that cannot possibly be calculated as yet or predicted for the future. The music which is being most widely disseminated and most widely discussed, and therefore most widely imitated and influential, is that music which is available on records. The music that is only published is very little known. I don't think one can possibly exaggerate the extent to which the climate of music today is determined by the fact that the total Webern is available on records, that the total Schoenberg is becoming available (High Fidelity, April 1966, p. 63).

Roland Gelatt's article, "Imperfect and Nonpareil", The Reporter, December 28, 1967, pp. 39-40, discusses the large number of reissues of Toscanini records to commemorate the centenary of that conductor's birth and takes a view directly opposite to that of Gould. That view must be taken into consideration even though the techniques of recording at that time were not as good as they are now. Gelatt refers to a personal element which was part of the listening experience in the concert hall not conveyed by the records. That element is Toscanini's personal magnetism and its influence on the audience. He says:

As a fairly regular Toscanini concertgoer from 1938 to 1954, I can attest to the extraordinary strength of that mesmerism. Toscanini had only to walk out on stage for the place to begin

vibrating with excitement. He radiated a rare kind of personal magnetism, and its emanations kept both his instrumentalists and his listeners in a state of intense, vigilant, almost apprehensive attention. One could sometimes leave a Toscanini concert with reservations. Never with boredom. (p. 39).

In keeping with the point of view in favor of a concert-hall recording over a studio recording is a comment by music and record critic B. H. Haggin:

Even if I were to grant all the things that are possible in the making of a record, I would still want certain performances live. You get something there sometimes which you just can't achieve in the recording studios. The live concert hall performance, or even such a performance recorded, could very well have qualities that are preferable -- with all their imperfections -- to one assembled from recording studio takes (High Fidelity, April 1966, p. 53).

Goddard Lieberman, president of Columbia Records, Inc., makes a statement which may be interpreted in favor of recording under conditions as close as possible to those of the concert hall.

Personally, I don't like the present fashion of close-up miking, not even for the piano. I prefer perspective. I don't believe the engineer should intrude between the composer, or performer, and the listener and suddenly make you hear a flute or trumpet. I think the next step will be a regression back to the old days, with fewer microphones placed further away both to give perspective and to let the ears listen on their own. If a composer wants to write the other way, he should frankly call his piece a String Quartet for Four Instruments and Four Microphones; that is quite a different sound than for instruments alone (High Fidelity, April 1966, p. 49).

An outstanding recording project in what we may perhaps call the "concert hall" is described by John McClure, in his article, "How We Taped the Sound of San Marco", in High Fidelity, February 1968, pp. 52-58. This is an attempt to record Giovanni Gabrieli's double choral works as they were thought to be originally performed in the Basilica San Marco in Venice. This is not unlike attempts to record early music played on the instruments for which they were originally written, such as the excellent recordings of the New York Pro Musica Antiqua and similar recordings, based on efforts to be as authentic as possible. Such attempts are to be highly praised and encouraged.

George Movshon, in his article, "How the Gods Were Caught", High Fidelity, December 1967, pp. 18 and 20, reviews John Culshaw's book Ring Resounding. In that review, the author points out some of the beliefs of Culshaw about recording. Since the recording referred to has been widely acclaimed, Culshaw's opinions must be taken seriously. According to Movshon, p. 20, Culshaw "believes that the Decca/London Ring provides a fundamentally new kind of listening experience, differing in kind, not just degree, from traditional recordings. This is neither the replica of an opera house presentation, nor yet a studio assembly of the music; it is an attempt at sonic sculpture for the home, a new approach to the listener's musical and dramatic imagination. Stereo made it all possible; vision and teamwork by singers, players, and technicians brought it off. Culshaw is much taken with Glenn Gould's prediction that the concert hall and the opera house are doomed, that the living room is the theatre of the future. He foresees a home equipped with a means of projecting a superb visual image, linked to audio reproduction of the highest quality. The viewer/listener would choose his own fare, and would in large measure control the manner of its presentation." Movshon points out that the video playback is well on its way to becoming a reality in the home. He refers to Norman Eisenberg's article "CBS Video Plays Through TV Sets" in High Fidelity, November 1967, p. 24.

James Goodfriend, in his article "The Musical Importance of Stereo Reproduction," Hi-Fi/Stereo Review, February 1968, pp. 64-65, attempts to explain why there is so much controversy about how a recording should be made. He says:

The term 'high fidelity' itself is one that needs some discussion. It means, of course, a high degree of trueness or likeness to the original, the absence or near-absence of any distorting factor. But there are many different kinds of sound quality produced by records all claiming to be high fidelity. The differences among them (assuming equally good recording equipment, engineers, and processing) stem basically from the different answers to the question, 'What is the original?' Is the 'original' to be considered the sound of a musical performance as heard by a listener in the second row of the orchestra, or in the fortieth row, or midway up in the balcony? Is it the sound of the performance as heard from a point in the hall at which all the instruments seem in most perfect balance with one another, a point at which, perhaps, no one can sit because it is twenty feet directly over the conductor's head? Is it the sound as 'heard' by the microphones rather than by our ears? Is it the sound, already on tape, that is heard by the record producer in the studio

control room or the editing room? Is it the sound of the musical performance stripped of its acoustical ambiance? Is it the sound, arrived at through electronic manipulation, that the producer determines is the proper one for this particular music? There is no one of these theories that is right and the others correspondingly wrong, and that is why there is no one standard of musical reproduction to which everyone subscribes. (Incidentally, there should be no such diversity of intent in the design of the playback system. Although there may legitimately be a question of taste in the type of sound recorded on the disc, the task of the playback system itself is, ideally, to render perfectly whatever sound, good, bad, or mediocre, is engraved in the groove.)

Whatever the theory employed, however, the stereophonic reproduction of music must be involved to a degree with all six of the phenomena mentioned above. (pitch, dynamics, depth illusion, directionality-localization, ambiance or acoustical atmosphere, and timbre or tone color).

Jack Somer, in "Behind the Scenes in Classical Recording," Hi-Fi/Stereo Review, pp. 52-56, tends to agree with those who advocate studio recordings rather than concert-hall recordings:

Today's classical record maker has many tools available to him -- tools designed and provided by engineers -- and it is the design, maintenance, and imaginative use of these tools that determines the quality of any record. Just what use is to be made of these tools is of course up to the record producer, and while the purists among them strive simply for 'concert-hall realism,' the experimenters try to transcend tradition and to succeed on their own terms without doing violence to the music.

Later Somer brings up an important reason for "improving" musical performances on record, whereas such "improvement" would be of little or no importance in an unrecorded concert performance.

The controversy over whether to splice or not boils down to this: does the record-buying public want musical performances that are studded with obvious bobbles and goofs which will be there to be heard and winced at for the life of the record? The record companies obviously think not.

Somer concludes his article by emphasizing the importance of the use of the tools of the recording industry:

It is the use of the tools, not the tools themselves, that

gives character and individuality to recorded sound. Credit or blame must be given to the men who use the tools -- the a-&-r men, engineers, and musicians -- those whose daily lives are spent in the pursuit of excellence in the studios. The modern phonograph record is a marvellous achievement, whether it is being played or being studied under a high-power microscope (a fascinating experience), and critics and public alike can profit from an understanding of the complex of efforts and compromises that are required to produce them.

This brings us back to Culshaw's point of view, that recording with all of its technical tools, should be accepted as an art in itself, and should not necessarily try to duplicate a concert-hall experience. A sound-recording is, in a sense, a special variety of performance, and the record producer should have the combined talents and knowledge of a musical performer, a musicologist, and a recording engineer who is aware of the latest advancements in the technical aspects of his field.

The best way that the record buyer and/or listener can be protected is to have all the information to which he is entitled. That information should be plainly and accurately indicated on the label of the recording or on its container. The information should include not only the names of the performers, manufacturer, etc., but also and especially the name of the producer and the conditions under which the recording was made. There should be no question of the integrity of everyone involved in the making of the recording and of the goals they tried to achieve.

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- a. Technical questions of recording and rerecording
- 2. Technical specific considerations

Regardless of the aesthetic premise from which record producers proceed to make sound recordings, there are certain technical specific considerations that should be met. They are: balance, clarity, full frequency range, no print-through on tapes, no pre-echo in discs, maintenance of adequate volume level, master tapes free from mechanical defect, accuracy of pitch, no clicks from noisy splices, no tape hiss, and clearly visible bands in appropriate places (such as between works and between movements of a work). Especially in the case of reissues, there should be accuracy of pitch, no falsification of the original sound, and no defacing.

- Ida Rosen

- b. Information provided about individual recordings

Classical and Contemporary Western Art Music

High Priority:

On the outside of the disc sleeve, or the container of a record album or tape reel, the following data should be prominent: the name of the manufacturer, the catalog number(s), the quantity of discs or tape reels (if a set or album), the speed, whether mono or stereo or pseudo-stereo, the title of the recording, the name(s) of the composer(s), the titles of works. The names of major performers or performance groups and the name of the conductor(s) may be cited on the back of the sleeve or in notes inside. But if the music consists of excerpts from a larger work, this should be announced prominently.

On the spine of the sleeve or box should be the record number(s) and the composer's name and/or the title of the recording.

On the back of the sleeve or in notes inside the following information should be supplied:

(a) about the recording:

The date the recording was made should always be stated. The duration of the music should also be stated. (This is known to the producers of the record, so it should not be troublesome to publish it on or with the recording. Many librarians, archivists, broadcasters and private collectors need this information and spend needless hours in timing. The Library of Congress includes time duration on the catalog card, if the information is provided by the manufacturer.) The place of recording is likewise of interest.

(b) about the music, performers and instruments

The composer's birth and death dates and the date of composition of the works recorded should be given. If special instruments are used, such as an organ or medieval instruments, their ages, the names of the makers, and the organ specifications should be provided. The names of the solo performers or members of a small ensemble should be given, also the name of the producer of the recording. If excerpts from a larger work are involved, full details of what is included should appear. This is very important to the cataloger, and indeed, to any collector. If the recording is of vocal music, it is highly desirable to provide the texts in the original language, and in accurate translation.

(c) about the sleeve notes

The writer of the sleeve notes should be an authority on the music in question, and the notes should be pertinent as well as accurate. The writer's name should appear with the notes. (The authority of this writer is often an inducement to buy the recording.)

Desirable:

It is helpful to know the details of the recording equipment and any unusual technical information about the recording, also the name of the hall where the recording took place, and whether it is a studio or concert (live) recording. Descriptions of the instruments are valuable, especially if not modern. In treating

the background of the music, the writer should discuss the general place of the composer in the history of music (if not widely known), the place of the work recorded in the composer's entire work.

The Deutsche Grammophon Gesellschaft Archiv series can serve as a model for fullness of information for recordings of classical Western art music.

Reissues

If the recording is a reissue, this should be indicated prominently, on the outside of the sleeve or container. The original catalog numbers, and the year of the original recording (or the year it was first issued) should appear somewhere in the sleeve notes or brochure. Was it taken from masters, or some other source, if masters were not available? What technical modifications have been made for the reissue? If the original was monophonic and the reissue has been transferred to pseudo-stereophony, this should be clearly and prominently displayed.

If the original was issued ten or more years ago, it is very helpful to provide information about the performers, and perhaps the circumstances of the recording, if known. Angel's COLH series, of reissues, gave extensive background data on performers and the details of the original recordings as well, and could serve as a model in this respect.

Traditional (Tribal or Rural Folk) or Non-Western Classical Music

On the outside of the disc sleeve or the container of a record album or tape reel, the following data should be prominent: the name of the manufacturer, the catalog number(s), the quantity of discs or tape reels (if a set or album), the speed, and whether monophonic or stereophonic or pseudo-stereophonic.

If the recording is of non-Western classical music, the name(s) of the star performer(s) should be featured, and the name of the country represented.

If it is a field recording of traditional tribal or rural folk music, the name of the collector should be given prominence, and the name of the general geographic area represented. The collector's name means a great deal to ethnomusicologists, who use these recordings for teaching or for their own research. It is therefore in the interest of the manufacturer and dealer to give the collector's name prominence. In some cases, for well known rural folk singers (as in some Folk Legacy records), the name of the

singer or instrumentalist should be given prominence.

On the spine should be the catalog number(s) and the title of the record.

The notes for these records are crucial, as they constitute the chief reference for the music they accompany. For Western art music, there are other reference sources, but in particular for field recordings, the music is not self-explanatory, and the background information is absolutely necessary. The manufacturer is urged to allow space on the sleeve or if possible a separate booklet for this.

High Priority:

Information is wanted as to the authority of the collector, editor or person responsible for the recording.

Information is needed about the competence and background of the performer, if the recording is of non-Western classical music (or of certain folk singers or instrumentalists). The year of the recording should be indicated. If a field recording, the circumstances of the actual recording should be stated: the year the collector recorded what, where, with what equipment (e.g., the type of recording machine, whether battery-operated, whether he had technical assistance). The collector's special knowledge or background or experience should be mentioned, and his expertise (or expert assistance) in the actual location of this recording. How long was he in the field, what was the extent of his total collection, was he assisted by a local expert, and if so, what was the expert's background?

What were the criteria for the selection of music presented on the record? Has the goal been to present variety, or samples as complete as possible of certain kinds of music, or music free of European urban influence (even though such music has entered the native musical practice)? What kinds of editing have been done? For example, have background noises (coughs, babies crying) been cut out, thereby slightly altering musical duration? It should be mentioned here that archives and private specialists in non-Western music (the major buyers of these recordings) do not require field recordings to be of studio quality; they need only be reasonably good. The manufacturer, editor and collector should bear this in mind when making the selection.

If possible, for documentary value, texts of songs should be given in the notes in the original language and English, and instruments should be named, described, illustrated. If texts can-

not be given, then the general subject of the words should be indicated.

The names and ages of the informants should be given for each item, and the usual circumstances of performance of each item should be clarified (dance of a certain ceremony, lament, wedding song, etc.)

Very Desirable:

It is desirable to include background on the area where the recording was made, e.g., the common occupations of the people, the surroundings, state of isolation or acculturation. Information about the informants is valuable, such as their degree of mastery of the tradition, their personalities and roles in the society. Also the patterns of performance are of interest (whether men or women alone perform a dance, or both together, whether some songs or dances are limited to certain age groups, etc.). A map is extremely helpful when the record includes material from little known locations. Photographs of performers, of instruments, of dances, and of the milieu are of great value.

Conclusion:

Records in the "traditional" category are almost always unique, the only recording of a type of music, or from an area. Very often this music is dying out. Therefore these recordings can be especially important for libraries or archives to retain. But no matter how fascinating or technically excellent the recording, its meaning, its significance for the listener outside the culture depends on the background information supplied with the record.

Examples of excellent record documentation are Stanley Diamond's Music of the Jos Plateau and other regions of Nigeria (Folkways FE 4321), edited with notes by Victor Grauer; France, edited by Claudie Marcel-Dubois and Maguy Andral (Columbia World Library of Folk and Primitive Music, edited by A. Lomax, Vol. IV, Columbia KL-207). The first includes appropriate background on the cultures of the tribes recorded, excellent photographs, and Grauer's comments on the music itself. The second is an anthology of representative field recordings made from 1913-1951, with identification of each item, photographs, comments on singers and regional styles, compiled by the leading French specialists.

Urban Folk Music, Popular Music and Jazz

On the outside of the disc sleeve, or the container of the record album or tape reel, the following data should be prominent:

the name of the manufacturer, the catalog number(s), the quantity of discs or tape reels (if a set or album), the speed, whether mono or stereo or pseudo-stereo. The title of the recording, the name(s) of the leading singer(s) and/or instrumentalists are likewise important. The date of the recording is very important, and the place, and whether it was recorded on location or in a studio. The duration of individual items should be indicated.

For jazz and popular music recordings, the buyer needs to know the titles of all the pieces or numbers, and for each item the names of all the performers and their instruments. The name of the arranger is relevant as well, and the writer of the song lyrics.

If the recording is a reissue, this should be indicated in a prominent place on the sleeve or container. The manufacturer, catalog number and year of the original recording, and place (when known) should be given in the sleeve notes, and whether it was recorded "live" or in a studio.

Most buyers of recordings in these categories are especially interested in the performers, so it is desirable to give extensive information about the artists and their musical careers. It is important to know how long the group has been playing together. Other records by the same group can be mentioned. For urban folk music or songs of social protest, it is useful not only to have information about the performers, but also to provide the song texts.

Spoken Word (Plays, Poetry Readings, Monologs, Documentaries)

On the outside of the disc sleeve, or the container of a record album or tape reel, the following data should be prominent: the name of the manufacturer, the catalog number(s), the quantity of discs or tape reels (if a set or album), the speed, whether mono or stereo or pseudo-stereo.

If it is a play, the author and title should be given prominence as well as the names of the stars. If there are changes in a classic text, this should be stated, with some description of the change. The date of recording is of historical importance and must not be omitted, for the recording serves at least in part as a document of the actors involved.

If the recording consists of poetry readings, the poet, the titles of the poems, and the reader should be given prominence. The date of the recording is important, especially if the reader is the poet. Background information about the poet, the works read and the reader is useful. The duration of the items should be given.

If the recording contains monologs, the librarian or private collector will wish to know the name of the reader, the titles of

the recitations, and some background information about the reader. The date of recording should be stated, and the duration of the items.

In general, recordings in foreign languages should be provided with texts in the original language and in accurate translation.

For documentary recordings, the title of the recording and the name of the editor or person responsible for the recording should be prominent. The date of the recording is of fundamental importance. It would be of value to provide information about the event documented, and the persons involved. Photographs make the record more attractive and texts (especially if the speech is not always clear) make it easier to use.

Reissues of Spoken Word Recordings

As with other reissues, the original catalog numbers, and the year of the original recording (or the year it was issued) should appear in the sleeve notes. If the original recording was monophonic and the reissue has been modified technically, this change should be clearly announced. A good example of a reissue is Stanley Holloway Monologues (Angel 65019), which provides details of the original 78 discs of the 1920s and 1930s, and background information on Mr. Holloway's career.

- Barbara Krader

- c. Materials of which discs and tapes are made
- d. Packaging

The most important thing we found out about this subject is that there is a surprising dearth of information. To our knowledge the best account concerning the problem of standards in the manufacture of sound recordings is the A. G. Pickett and M. M. Lemcoe report, Preservation and Storage of Sound Recordings, Washington, D. C., 1959. The reason is that, in attempting to find out the best methods of preserving and storing sound-recordings, the authors of that report found that many problems are due to the formulation and processing techniques used in the manufacturing of sound recordings, and that most sound recordings are not designed for longtime storage but for playback qualities and low-cost manufacture.

The method by which sound recordings are manufactured is especially important because the basic materials used are plastics, which, at present, are not subject to adequate evaluation. The

Pickett-Lemcoe report, p. 5, explains it as follows:

The uncontrolled variables are the basic resin, the materials added to the basic resin to alter its properties to those desired, and the sound record manufacturing process. The quality control of the individual chemical plant producing a basic resin may be excellent and result in a uniform product, but there are numerous sources of these resins including some foreign sources which have sold some extremely low-cost resins on the domestic market. Since chemical degradation can be initiated by but trace amounts of certain chemicals, it would be remarkable if the process differences between chemical plants did not cause differences in resistance to degradation.

The materials added to the basic resin are even more variable in nature than is the resin. The major sound record manufacturers differ significantly in their formulations for cost or product improvement reasons. An unfortunate choice of lubricant or extender can conceivably decrease the potential life of a stored plastic by several decades while a change in stabilizer...might increase such life by as much as a century without any noticeable change in appearance or playback quality of a new recording.

The conditions of heat and stress imposed on a plastic during the manufacturing processes are severe. The variation in processing techniques, even if these variations are but ostensibly minor differences in cycle time, temperature or pressure, contribute greatly to variations in such parameters as internal stress, laminate adhesion, retained solvent and chemical degradation initiation. All of these items which make for a variation in potential storage life of sound recordings are outside of the ken and the control of those who acquire and store sound recordings. The only way to overcome this deficiency is to develop suitable specifications covering formulation and manufacture to be used for the procurement of sound recordings which will provide a product of dependable and maximum storage life. Premium sound recordings manufactured under such specifications would undoubtedly be more costly than regular items, but the overall economy which would result from reduced care and longer time intervals between re-recording necessitated by record deterioration would--by far--more than offset this initial expense. From the inquiries received during this program, it seems likely that there is sufficient demand for premium life sound recordings to justify their manufacture.

Later the report, p. 11, continues:

Sound recording media are designed primarily for fidelity of reproduction of sound and playback durability. Almost without exception, the design of a new material or type of sound recordings has been based on these considerations and economy of manufacture alone. In use, these materials reveal their deficiencies, including those which cause early failure in extended storage. As these deficiencies are recognized, the product is improved to provide longer lasting sound recordings. As a result, it is very difficult to predict the behavior of today's sound recordings from those of yesterday, except to guess that they will be better and longer lasting. Most of these materials are still in the development stage and a collection covering but a few years span will include items superficially identical but of vastly different potential longevity.

Discs

In discussing the shellac and shellac type disc, the Pickett-Lemcoe report, p. 24, states:

At the present time, normal groove discs use such materials as Vinsol, Valite, Vinyl chloride-acetate, and other commercial resins for a binder instead of shellac. It is, unfortunately, often difficult to distinguish between shellac and shellac type discs by inspection, and even most quality disc manufacturers extend shellac up to 200 percent with materials of inferior aging qualities. This, together with the wide variety of formulations and ingredients used, make it almost impossible to make any statement about these discs which would be valid for all such discs found in a single collection.

Nevertheless, libraries have important collections of normal groove discs whose preservation is important. Many of these discs have survived for half a century and appear to be still in excellent condition, while some of them have deteriorated in less than a decade. It is hard to determine the cause of this degradation in most cases. In ordinary environments, storage stability of cellulosic flours and fibers ranges from good to terrible, of clays and ground slate from excellent to good, and mineral flours generally are rated as excellent. Likewise, the waxes of vegetable and mineral origin exhibit a wide variation in stability as do the resins used as extenders or substitutes. All of these materials are most sensitive to environmental factors.

In discussing the long playing (microgroove) plastic disc, the report, p. 26, states:

The plastic disc is made of a thermoplastic into which no more than 25 percent of a filler or extender may be added for the purpose of decreasing the cost of the disc. The resin is all important in determining the physical properties and response to aging of these discs although their quality and storage life may be impaired by the use of fillers and extenders.

Vinyl (or copolymer of vinyl chloride-acetate, unplasticized), of which most discs are made at present, tends to be very susceptible to environmental conditions. Although it is resistant to the growth of fungi, it is not resistant to fungal etching caused by the growth of fungi on the packaging materials. Moreover, although it is unaffected by excess moisture, it is very susceptible to high temperatures, thermal cycling (which induces warp), ultraviolet rays, imprint and abrasion, and fairly susceptible to attack by oxygen and atmospheric contaminants. The results of aging are warping and embrittlement, the probable causes of failure being internal stresses, loss of extender, and cross-linking, all having to do with the way the disc was manufactured (Pickett-Lemcoe, p. 47).

In discussing unwanted noise that comes from the surface of a disc, Lewis Arnold, in his article "Stereo Forecast" in Hi-Fi/Stereo Review, February 1968, p. 72, makes some knowledgeable statements about the material of which discs ought to be made:

Better quality control in disc-processing plants can help, but a good part of the problem is inherent in the material used to make today's phono discs. The ideal phono-disc material would be conductive so as to eliminate static-electricity problems, and would combine low cost, easy molding, high surface hardness for resistance to scratching, high impact strength to endure a dropped stylus, and a higher modulus of elasticity (more stiffness) than present materials have. The last-named improvement, if it could be had without degrading any of the other factors, would be the sonic equivalent of reducing the stylus-tip mass in the playback cartridge; high-frequency response would improve and distortion would be reduced.

But vinyl (a term covering a multitude of sins in plastics) is likely to remain dominant for quite some time because it is inexpensive, easy to use--and fairly quiet. By varying the formulation with different plasticizers and fillers, a wide range of properties can be built into vinyl. Some 'recipes' used by manufacturers sound better than others, but there is a limit to the possible improvement with this group of ma-

materials. Polycarbonate plastics, rather expensive until recently, look promising, but there is no clear break-through in sight here.

Perhaps the materials engineers could apply one of their more spectacular new techniques to disc plastics: the production of cross-linking between the atoms of a substance by subjecting it to strong ionizing radiation. These irradiated materials gain immensely in hardness. Whether or not the technique has been considered for record plastics I do not know, but I can envisage newly pressed records passing through a small radiation chamber for their shot of ionizing 'hardness' before they are packed for delivery.

Of course, discs can be preserved for a long time by the use of proper packaging and storage. Storage is primarily a matter for libraries, record collectors, and, to some extent, record dealers, but packaging is primarily a responsibility of the manufacturer. As is described by Shirley Fleming in her article, "Masters, Matrices, and Mass Production," High Fidelity, January 1965, p. 51, most packaging of even the best stereo records consists of well-dried paper labels, paper or plastic inner sleeves, cardboard album covers, and "in some cases, tight, heat-sealed, polyethylene wrapping" over the entire package. According to the Pickett-Lemcoe report, p. 48:

At the present time (1959), the most satisfactory material seems to be a laminate of polyethylene/paperboard/foil/polyethylene. The paperboard furnishes the necessary stiffness to support the polyethylene and aluminum films and prevent dimensional change or wrinkling of these materials as well as to aid the vinyl and shellac discs in resisting warping. The aluminum foil is an effective vapor barrier to deny access to oxygen and deleterious atmospheric contaminants. The polyethylene furnishes a smooth, fungi resistant surface and also is a moisture barrier for both the paperboard and the discs.

Specifications for each material used are also given. That report is almost ten years old, but as far as we know, no such packaging material is being used by record manufacturers. The report suggests two other potential packaging techniques, presently used by the foods industry, namely, inert gas packaging for large collections of precious but very seldom used discs, and the aluminated foil-laminated corrugated box for temperature control during shipment of sound recordings.

Magnetic Tapes

The problems concerning the use of magnetic tape are similar to those of the disc. The article by Jan Rahm, "The Right Tape for the Job", in High Fidelity, August 1967, p. 53, states:

The disagreements and the likelihood of multiple-choice originate with and extend back to the tape manufacturers themselves. Tapes are marketed with general claims of performance which all read very promisingly. As for detailed specifications, when they are obtainable at all they are not only highly technical but are based on no universally accepted standards--an experienced professional might make sense of them if he has been using a variety of tapes for several years and if he knows every last performance quirk of his own machine.

The most important fact about tapes is that "optimum performance (that is, widest possible response commensurate with the lowest possible distortion) is not related to the kind of tape used as much as it is to the precise matching of the tape--of whatever kind--to the mechanical behavior of a particular tape recorder and to its electrical characteristics in terms of bias and equalization." (Rahm, p. 53). For more documented information, Rahm refers the reader to: Stewart Hegeman's "What Tape to Choose," High Fidelity, August, 1963, pp. 41-43, and I. L. Grozny's "Tape to Choose From," High Fidelity, August, 1965, pp. 40 ff.

According to the Pickett-Lemcoe report, p. 62:

The best tape presently available for storage purposes appears to be 1½ mil Mylar base with some doubt existing as to the coating to base adhesion of this type of tape. Any of the tape manufacturers are presently capable of producing longer lived tapes if there is sufficient demand for them and it is hoped that one or more of them will do so. Each of the major manufacturers produces good tape and each product seems to have a slight advantage over the others in one parameter while being at a slight disadvantage in others. The competition in this market is enforcing rapid advances in tape construction and formulation which should result in tapes of superior potential longevity in the foreseeable future.

In reporting innovations in his 1967 article, Rahm, pp. 53-54, lists 'low-noise' tape with its improved signal-to-noise ratio, high-output tape, which achieves a high signal-to-noise ratio by allowing a stronger signal to be recorded without overloading the tape, and 'low-print' tape--intended to solve the problem of print

through. "A new concept is tape with a guaranteed frequency response....The tape comes with a certificate showing its frequency response, distortion, noise level, and output variation" (Rahm, p. 54).

In discussing a tape's ease of handling and longevity, Rahm, p. 54, says:

Although the sound you get onto and off a tape depends on its oxide coating, a tape's ease of handling and longevity are determined largely by its backing and thickness. A thicker tape--specifically, acetate-backed, according to some recordists--is easier to handle and may be more readily spliced than a thinner one. As far as longevity goes, polyester, with its almost total immunity to temperature and humidity changes, wins hands down over acetate. The latter is a brittle material made supple by the addition of plasticizers, which tend to dry out in time (a process that is accelerated if the tape is exposed to temperature and humidity changes), and result in dropouts in the recorded sound. Acetate also breaks under strain, though it has the advantage of breaking cleanly, making splicing easy. Polyester, a tougher material, will return to its original state if stretched slightly; if stretched beyond its tolerance, however, it will curl up before breaking, making splicing virtually impossible.

According to Rahm, p. 54, "Manufacturers of polyester tapes claim that in the last several years, improvements have been made, and with proper handling, stretching shouldn't cause problems."

A more recent article on improvements in the manufacture of tapes is "Recording Tape: A Short Primer" by William H. Madden in Hi-Fi/Stereo Review, March 1968, pp. 71-74. It is especially useful for information concerning high-output tape and low-noise tape. The latter has special oxide, black rather than red in color, which reduces background tape hiss or noise by 6 db. It also has a built-in high-frequency boost that helps maintain a wide frequency response at the slow tape speeds. Madden says, "Although such tape is premium priced (it costs 30 percent more than all-purpose tape), its ability to record twice the material per reel at slower speeds--without serious sacrifice of reproduction quality--becomes an economic consideration for the home recordist" (p. 73). Madden states, however, that the choice of the tape used should depend not only on the use for which it is intended, but also on the quality of the tape recorder. The tape and the machine must be matched to suit each other.

A third backing material made of polyvinyl chloride, sold

under the trade name Luvitherm, is, according to Rahm, p.55, "roughly the same price as acetate, but doesn't contain any plasticizer to dry out. Pvc is more sensitive to heat than polyester, but unless you want to give it that classic test--putting the tape on a car's dashboard while driving in the Texas sun--it's more a theoretical difference than a practical one."

In the offing is a magnetic tape manufactured by DuPont, called Crolyn, which is based on an entirely new recording material, chromium dioxide:

The new tape looks like conventional iron oxide tapes used to record computer and scientific data and, in video applications, for television work. But it offers two distinct advantages: It can hold twice as much information in the same length; and--in recording music or voice--gives better resolution of sound to background noise or static....Initial sales will be aimed at the commercial and industrial markets with sales direct to computer makers, for example. DuPont also expects to sell the tape to television stations for video tape recorders. But there are no plans at present to offer Crolyn to the stereo recording or home tape recording industry (Business Week, June 24, 1967, p. 172).

Two of the recommendations made by the Pickett-Lemcoe report, pp. 61-62, for packaging and/or storing of tapes are as follows:

1. Use only metal reels with an unslotted hub of N.A.R.T.B. dimensions (10" reel size).
2. Package reels in sealed metal cans or sealed boxes of a material such as polyethylene/cardboard/foil/polyethylene laminate...Tape should not be packaged until it is in equilibrium with 70 degrees F and 50% R.H.

Rahm, in his article, p. 55, admits that the tape industry has not gone out of its way to provide good packaging but describes some of the features which are expected in the future, such as more attractive boxes, easier to thread reels, blank marking labels packed with each reel, color-coded leader tape on both ends, and/or a switching foil for those machines that can automatically reverse the tape when one track has been played through.

There may be more information about the manufacturing and packaging of sound recordings in technical periodicals, written for engineers, chemists, etc. We have depended a great deal on quotations, especially from the Pickett-Lemcoe report, because we believe those authors have explained the problem much better than we could have done.

To conclude, there is very little information on the manufacturing of discs and tapes available to the layman. Furthermore, as a result of the work done for the Pickett-Lemcoe report, it has been shown that there are no common standards in the manufacturing of sound-recording materials. In its recommendations for the future, the Pickett-Lemcoe report, pp. 63-64, states:

For the future, it is desirable to have more stable media of longer life and less dependence on expensive storage environments and techniques. The present state of knowledge should permit manufacture of sound recordings of several times the potential life of currently used media. If there is sufficient demand for longer lived sound recording materials, and this can be proven to the industry, they will, undoubtedly, develop and produce such materials. If such demand does not exist, the cost of development and production of longer lived materials must be borne by those few who will benefit from such endeavor. Even in this latter case it would be unthinkable not to take advantage of the wealth of knowledge which has been accumulated by those in industry, which is largely unavailable at the present time because of the necessity for preservation of trade secrecy. Such a project would involve public relations as well as the cooperation of many people of such diverse disciplines as library science, solid state physics, sound recording, plastics technology and chemistry. If one were to adopt successful precedent, the formation of a Committee for the Preservation of Sound Recordings is indicated. Such a group formed of people with a mutual interest in the problem and with the desire and ability to contribute to the development of longer lived sound recordings could achieve dramatic results in this field which would not be attainable by any single research effort or organization of limited viewpoint. The main obstacle to progress in this field seems to be the lack of communication between the different disciplines and this should be easily overcome by such an approach.

The above recommendations are just as valid now as they were when the Pickett-Lemcoe report was published in 1959. Manufacturers have not taken it upon themselves to take full advantage of the knowledge available to them to increase the quality and durability of sound-recording materials. ARSC should recommend that the work of the Pickett-Lemcoe investigation be carried to its logical conclusion, i.e., the establishment of high standards in the manufacturing of sound-recording materials.

Recommendations:

1. Disc materials should be void of static electricity, fungi-

and mold-resistant, resistant to scratching, strong enough to withstand a dropped stylus, capable of high frequency response with reduced distortion, and resistant to warpage and "dishing".

2. Packaging materials, whether supplied by record manufacturers or library supply houses, should be resistant to fungi, a barrier to moisture and to atmospheric contaminants, an aid in resisting disc warpage, and in no danger of making surface imprints on the discs.
3. Discs should be labeled as to the type of thermoplastics of which they are made and the percentages of fillers and extenders.
4. Prerecorded or blank tape should be durable (or long lived), free of distortion noise, high in frequency response, free of print-through possibility, easy to handle, and capable of recording with the maximum of fidelity at the lowest possible speed.
5. Reels should be durable for at least the life of the tape, easy to thread (without damaging the tape in storage), and resistant to warpage.
6. Leader tape should be supplied at both ends of the recording tape, both blank and prerecorded.
7. The tape should come in sealed boxes made of material that will keep out moisture and air contaminants, that will be at least as durable as the tape they contain, and that can be labeled easily.
8. Tape containers should be labeled as to the materials the tapes contain, the percentages of the materials, the measurements of the tapes' length and thickness, the purposes for which they can best be used, and the types of machines for which they are best suited.

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- Ida Rosen

1. Reviews

A. Recommendations Pertaining to All Categories of Recording Reviews.

It is advisable to give certain data about the record or tape at the beginning of the review. These should include: the name of the issuing company, the manufacturer's catalog number(s), the quantity and size of the disc(s) or tape(s), the speed, whether the recording is mono or stereo, and if an originally monophonic recording has been transferred to the disc or tape with some sort of reprocessing for pseudo-stereophony. It is also useful to include the list price.

Two more basic facts should be given if possible: the year of the recording and its duration. (If the recording consists of several short items, the statement that the duration of each item is indicated on the recording will suffice.) These last two matters are of such basic importance and usefulness to users of recordings, that reviewers should make a point of objecting when the information is not made available by the manufacturer.

The title of the recording should be cited, unless it is not distinctive from the title of the musical work.

If the recording is of Western art music, the reviewer should specify the composer, the title of the work, the opus number, if

any. For early music the editor's or arranger's name should be given, as well as the published or manuscript edition of the music used. Names of solo performers, groups, directors or conductors should be given. If the recording contains excerpts of a larger work, the excerpts should be specified in the review, as well as what has been omitted.

For recordings of non-Western classical music, the performers should be named, and the editor, if any. The types of music and the country of origin, or the religious context if not associated with one country, should also be identified.

For recordings of tribal, peasant or Western rural music, the name of the collector or editor is essential, with the geographical location of the group or soloists recorded, the name of the tribe, or peasant village, and the names of the performers if they are widely known.

If the recording is of urban folk music, or popular music, the name(s) of the performer(s), composer(s) and arranger(s), and the author of the texts should be given. The titles of the separate items should be listed.

For jazz, one needs to know the titles of the separate items, the names of the composers or arrangers, the names of the performers (identified with their instruments).

For recordings of the spoken word (plays, poetry readings, monologs, documentaries), the names at least of the star performers should be given. If a literary work is recorded, the author and the date of writing or publication is wanted. For documentaries or collections, the editor or person responsible for the recording should be mentioned. In the case of documentaries, a brief identification of the event, its place and date, and its significance if not obvious, is desirable. If a play is recorded, any cuts, omissions or changes should be indicated in detail.

Reviews of reissues should provide the catalog numbers of the original release, state whether the original was mono or stereo, and give the year the original was issued. The original year (or years) is most important here. Other identification of contents can follow the lines indicated above.

Audible signs of splicing, bad matching, pitch wobble, or other faults should be mentioned, as well as errors in the performance or the sleeve notes.

More subtle matters which distort the original should be

pointed out when possible. The recording in a studio of non-Western classical music, or especially of tribal, peasant or rural music may lack the usual resonance (for religious music), its usual atmosphere (robust outdoor singing). It can often happen that a studio recording lacks other elements of a normal performance, such as all the usual instruments, the usual number of voices, etc. Or an editor may clean up a field recording by cutting out coughs, or a baby crying, at the same time distorting the music slightly.

If a reissue has been transferred from a monophonic original to pseudo-stereo, the reviewer should call attention to this and give a considered opinion of the result.

Assuming that the reviewer is qualified himself to speak with authority, the authority of the performer(s), the conductor, the writer of the sleeve notes should be mentioned. In Western art music, the conductor or performer might specialize in the works of certain composers. In non-Western traditional art music (court or religious music) the artist might be regarded as the greatest exponent of the traditional style of performance. In a field recording of tribal, peasant or rural music, the authority of the collector in knowing the music and people of the area and choosing typical or well-performed examples, and the concurrence of the community that they are typical and well-performed, are the major criteria.

An added degree of importance or authenticity is present when a concert performance is recorded live. The same holds for non-Western classical art music recorded during its actual performance during a religious rite, or before a court or otherwise expert native audience. It is equally true for tribal, peasant or rural music recorded as performed during its normal function before its normal local expert audience.

The extent of this depends on the space available to the reviewer and the sophistication of his readers.

For Western art music, it might concern the place of the recorded work in all the composer's life work, or details of the innovations present in use of instruments, voice, harmony, dissonance, etc. It might also relate to problems of interpretation, or problems of which edition (or cadenza) to use. Or it might concern the performer's career, and the other records he has issued. For non-Western art music, background about the performer or ensemble is almost required, for most American readers will not be informed, and the sleeve notes are frequently not informative.

For recordings of urban folk music, popular music or jazz it is helpful to discuss the evolution of the individual or group style. One also wants to know the history of an ensemble, or the career of a soloist, what other recordings have been made by them, and how the record at hand relates to the earlier records or style, and to other contemporary performers of the same type of music.

Concerning recordings of the spoken word, the reviewer might provide some background for a play reading, if the play is relatively unknown, and might outline the plot. For poetry reading, some information can be given about the reader, and a discussion of the choice of material on the recording. Reference is desirable to other recordings of the same poetry or to any existing recorded readings by the poet, or to other recordings by the same reader.

For documentary recordings, the importance of the event or public figure may need to be explained, unless well known. The circumstances of the recording should be described. If the conditions were not conducive to good recording, or if the recording was made many years ago, this should be mentioned.

With reissues, especially if the original release was very early, background information on the artists would be useful, and some comment about the recording conditions available at the time the original was made.

There should always be a strict assessment of the sleeve notes or brochure. Their pertinence and accuracy should be judged, and their author held accountable. In the case of Western art music, where reviewers and buyers are well-informed or can turn to other sources of information, sleeve notes need not always be elaborate. Nevertheless, when opera librettos are included, or texts of songs, praise is due when the original language is well-printed and the English translation accurate. When notes are published in several languages the reviewer should check to see if the English version is the equal of the others.

Sleeve notes for non-Western art music should be expected to provide adequate background information on the performers, the type of music performed and what to listen for. The review should mention the writer of the sleeve notes and comment upon his competence, as well as the adequacy of the information given.

In some cases the notes may be of general reference value but fail to illuminate the material recorded. An example is Shakespeare's Hamlet (RCA Victor album LM-6007), with Gielgud, D. McGuire, and Pamela Brown. Gielgud made extensive cuts for a

broadcast version, which was recorded here. The album provides the full text of Hamlet, printing in italics the parts recorded, but no discussion by Gielgud or anyone else is provided discussing why he chose to do it that way.

For documentary recordings, photographs are a desirable adjunct to the sleeve notes. If some of the speech is unintelligible, it may be important to know if the text is provided with the recording. For poetry readings or plays in a foreign language, texts and English translations should be expected by the reviewer.

In the case of notes with recordings of tribal, peasant or rural music, the following points should be looked for: are the song texts included in the original language and translation, or if not, is the subject of the song text indicated and is its normal function specified? Are the place of recording and the names and ages of the informants given for each item? Are the instruments described or illustrated, with a statement of when and by whom they are usually performed? Is there a general description in the notes of the area, indicating the degree of literacy, of isolation or acculturation of the people, and the informants recorded, and the status of the informants as recognised masters of the tradition? Are there photographs? Is there a bibliography? Did the collector write the notes? If not, there should be an appraisal of the note writer's competence. The circumstances of the actual recording should be stated: when the collector recorded what, where, with what equipment (e.g., the type of recording machine, whether battery-operated, and whether a technical assistant was available). How long the collector was in the area, and how well he knew it, are very important factors.

It may not be essential to comment in every case on the decoration of the record sleeve and the format of the comments, but credit should be given to especially attractive covers, and some comment made on poorly manufactured or unsuitable covers.

Judgment of the artistic quality of the performance is of paramount importance, followed by assessment of the quality of the recording in terms of appropriate sound, balance, evenness, etc.

Comparisons should be made to other recorded performances of the same work, or of other works recorded by the same performer(s). With non-Western music, comparisons are wanted with other recordings from the same tradition, or from the same area, if such exist.

For recordings of tribal, peasant or rural music, the quality of the performance might be judged in the following terms: authentic presumably, but dull; authentic and generally attractive; trained performer with unsuitable style, e.g., an opera singer condescending to sing a folk song, with pianissimos, fortissimos, ritards, et al. Trained singers need not be ruled out, however. There is a record of Czech folk songs made during the last war by Jarmila Novotná with Jan Masaryk accompanying her at the piano. It lacks "authenticity" in the usual sense, but is nevertheless a great and moving patriotic document. One may also refer to the Folkways record of Jaap Kunst singing Dutch folk songs. Kunst was an urban enthusiast who collected folk songs in his youth before becoming a world authority on Indonesian music. The record is not "authentic" in the usual sense, but is natural and direct, and his selection of favorites is of as much interest as the selection by Novotná and Masaryk.

For urban folk music, popular music and jazz, the artistic quality of the musical arrangement and the text should be evaluated as well as the quality and taste of the performance.

For plays, one needs evaluation of the entire dramatic effect, both of the actors' voices, and of the version presented on the recording (which is frequently cut). For poetry reading, the reviewer must make a judgment of the expressiveness of the reader. While the reciter of monologs is almost certain to be effective, a judgment is wanted of the quality of the subject matter, and its variety and general interest.

For documentary recordings, the reviewer should give an opinion of their interest, dramatic quality, technical quality and educational value. The attractiveness of the cover might be of more than average importance in this category.

In the case of reissues, most important is a judgment of the need for them. Here too, comparisons are needed, and an appraisal of the technical quality of the recording and rerecording.

For the benefit of both private collectors and librarians of recording collections, the reviewer should, perhaps under a special heading, indicate any special documentary or unique value the recording has, such as its being the only recording of a given work or of a type of traditional non-Western music, or the only recorded version by the given artist, or the only recording using the original score, or using a given combination of instruments (e.g., for The Art of the Fugue). It would likewise help to have some indication of the audience to which the record should be useful or appealing, taking into account the

price, the work, and the artistic and technical quality of the performance.

Concerning unfamiliar music, such as non-Western art music or tribal or peasant tradition, it is important to indicate whether the music and the recording quality would be attractive to the general public, usable for students in class, or bearable only to scholars.

The reviewer should bear in mind the importance of the sleeve notes to verify or explain documentary recordings. With recordings of non-Western art music, and above all with field recordings of tribal, peasant or rural Western music, the sleeve notes play a role equal in importance to the recordings themselves, if the recordings are to be used for study, or to be thought of as representative or typical of a given kind of music, or of a group or a place. It must be kept in mind that for nearly all such recordings, the sleeve notes or brochure are the only basic reference source (unlike the situation for those of Western art music).

For recordings of urban folk music, popular music and jazz, one would like the reviewer to estimate the lasting value, perhaps on the basis of the music, or the performance, or the timeliness and effectiveness or poetic quality of the song texts.

b. Recommendations for Certain Types of Reviews

In general, reviews of Western art music, urban folk music, jass and reissues are written by specialists who already have extensive background knowledge. This expertise is only rarely found in most record magazines or newspaper record review columns for the equally specialized fields of non-Western art music and of traditional tribal, folk or rural music, or even for recordings of plays or poetry readings. Therefore some special recommendations follow, in addition to those made above.

The non-specialist reviewer should characterize the music on the recording. Beyond that, he is limited to the knowledge given by the sleeve notes.

The specialist reviewer should describe the larger range of the music of which the recording represents a part, i.e., if Buddhist chant, where Buddhism is practiced, the differences in music of different areas, and the relative coverage of the record reviewed. Comment is also welcome on the vitality of the tradition - whether flourishing or dying out.

The selection made for the record should be appraised, i.e., how typical it is of the region or style, how "complete" is any one work, or what parts are included and what is excised. (In many types of non-Western music the length of normal performance is far too long for our records or our musical attention span.) An example of a successful record with cuts painstakingly made to be acceptable to a native specialist is Ella Zonis' Classical Iranian Dastgah Systems (Folkways FW 8831). For a contrary case, of imperfect cutting, see the review by W. Swets in the Journal of the International Folk Music Council, XX (1968), pp. 111-112.

At present, reviews of this kind of music are very uneven. Among the best are those by specialists in the journal Ethnomusicology, and the Journal of the International Folk Music Council (Cambridge, England), and those by Malcolm Pitt and William Purcell in The American Record Guide (on Indian music). The German magazine Fonoforum often has specialist reviewers. Otherwise, particularly in European journals, there is much general praise, sometimes of records which have fundamental flaws. Even the Grand Prix du Disque has been awarded to records in this category which have serious faults.

It is recommended that the expert reviews in the first three journals mentioned be kept with the records themselves.

TRADITIONAL/FOLK MUSIC (of preliterate tribal society, illiterate peasant society, European and American rural folk)

The non-specialist reviewer should characterize the music on the recording. Other than that he should note the recommendations already made under the general headings above.

The specialist reviewer should give an outline of the general background of the music of the larger area or type within which the music on the recording fits. There should be comment on how alive or widespread the oral tradition still is, and what other recordings exist from the given area or tradition.

There should be a discussion of the selection (inclusion and omission) and an attempt to define the basis for it. (See the review of Laura Boulton's record "Folk Music of Yugoslavia" in Ethnomusicology, V (1961), pp. 225-226.) This is needed, as recordings in this category are so often accepted as or purported to be a selection showing all the typical kinds of music of the given place. In fact, the selection is quite apt to be based on the items best recorded technically, or those most

attractive to the American editor's ear, or biased in favor of ballads or "old" songs rather than new music.

A list of points which should be included in the sleeve notes is given above, in the sleeve notes section.

Very few recordings issued thus far in this category can be used for scientific purposes. The fault lies most often in the inadequacy of the sleeve notes, but sometimes in the selection of examples. An example of a record of documentary quality is "Lithuanian Folk Songs in the United States," recorded by J. Balys (Folkways FM 4009), reviewed in Ethnomusicology, January 1962. The notes with this record describe Lithuanian folk music in Lithuania (on which the collector is an authority), and what has been collected and published there, as well as the range of the U.S. collection. Some of the reasons for the selection found on the record are given. Informants are described and photographed. Bibliography is included. Another example in this best category is "A Boorii Liturgy from Katsina (Nigeria)," recorded by A. V. King, reviewed in the Journal of the International Folk Music Council, XX (1968), pp. 114-115. A further discussion of various desiderata will be found in the review of "Music of Albania", recorded by A. L. Lloyd (Topic 12T154), in Ethnomusicology, May 1968.

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It is a pity that non-Western classical music and field recordings of tribal, peasant and rural music are usually lumped together with urban folk music and artificially arranged folk music from abroad in one review section (High Fidelity, The Gramophone, etc.) This lumping together has reached the ultimate degree of senselessness in Schwann's decision to list all these together in its biannual supplement, under the deplorable heading "International Pop and Folk Music," keeping only United States "folk music" (rural and urban) in the monthly catalog.

It would appear that reviews of recordings of the spoken word tend to be less thorough than those for Western art music, popular music or jazz. It might be recommended that specialized journals dealing with the theater review recordings of plays and readings. At present they do not, to our knowledge.

- Barbara Krader

B. UNIQUE MATERIALS TO BE PRESERVED IN RECORDED FORM

The preservation of unique recordings poses many problems, some of which are quite similar to those concerning copyright. The person or agency which is responsible for having made or produced the recording has certain privileges and rights inherent in the efforts and costs which were invested in its creation; these privileges and rights must be respected and upheld in order to assure a climate in which individual initiative can flourish and further recordings be created. On the other hand, it must be recognized that there is a potential public interest, both present and future, in any document; such materials must be created, preserved, and made available in order to promote both the general welfare and the development of the particular field to which the document belongs and of which it is an example.

In general it should be the position of ARSC to encourage the creation, preservation and availability of as many documents as possible of potential usefulness to the people of any locality, to any segment of society, or of aesthetic pleasure or enjoyment. Basically, the Association should take a position consistent with that of the broad public interest, and encourage the private or commercial agency to recognize and fulfill its public responsibilities, even when this may be economically disadvantageous to it. Perhaps the strongest method of persuasion will be to find and suggest ways and means of preservation which are economically feasible and even advantageous to the agency; it would be a serious mistake to ignore the effects of remuneration upon practices connected with any aspects of recordings, but especially in the area of unique materials to be preserved.

In order to be worth preserving, unique recordings should have a character of "specialness" however one cares to define it. Some quality of the contents of the recording, or perhaps the recording itself, should be significant enough so that it will be of some interest, present or potential, from some point of view or another. Completely routine items are not worth making special efforts to preserve, although preservation of a sampling of something not worth preserving in extenso may be justified. Potential research, aesthetic pleasure, or enjoyment not readily yielded by an existing commercially-produced recording would be the more important reasons for the preservation of a unique recording.

In general, it is to be hoped that all unique recordings

which by the above broad definition appear to be worthy of preservation will be available to the public either through the owners or through an institution which serves the general public or a significant segment of the public. Members of the public must expect to pay service charges and a reasonable profit to any private agency which makes recordings available for listening or by means of copies. Public or quasi-public institutions may under certain circumstances have to require payment of a service charge to meet expenses connected with service but should be no more restrictive or stringent than their facilities, general policies, or other agencies (originators, owners, donors, permission-granting "agencies," etc.) require them to be.

a. Oral history interviews.

It has been the general practice of most oral history centers to transcribe recorded interviews into typed form and then to reuse the tape or otherwise destroy the recording. These agencies must be encouraged to save the interview in recorded form for the sake of the added documentation to be gained from the person's own voice, accent, intonation, emphases, etc. In many cases this will require the agencies to increase their budgets for tape, and interviewees will have to be persuaded to lessen the restrictions which they customarily place upon the use of tapes. There are indications that members of the Oral History Association are becoming increasingly aware of this problem. In a summary of that Association's Second Colloquium, held November 18, 1967, the following was reported:

"Restrictions imposed by interviewees on the use of tapes were bemoaned...

Historians also pointed out the need of preserving original tapes, even when transcripts have been made, because of qualities in the tape which cannot be reflected in the typed transcripts, but which could be invaluable to historians." (Library Journal, Jan. 1, 1968, p. 28)

ARSC should maintain contact with the Oral History Association in order to further these objectives by any means which might be fruitful. Perhaps a joint panel discussion could be planned for a meeting of the Oral History Association.

Louis Shores has written an excellent article, "The Dimensions of Oral History," in Library Journal, March 1, 1967, pp. 979-983, in which he not only advocates the preservation of the original

tape recording as the primary source rather than its written transcription, but also the use of visual materials, such as motion pictures, to capture both the sound and the visual image of a historic event. As an example of the importance of sound recordings, he says:

"I have read and reread President Franklin D. Roosevelt's 'Day of Infamy' speech before the Joint Houses of Congress many times since that fateful Monday of December 8, 1941, when I heard it for the first time over the radio. I have always considered this to be one of the great speeches of all time, ranking with the Gettysburg Address. But I had forgotten the tension and awe of the atmosphere when the speech was delivered. Then last year one of my students presented me with the album of records that reproduced FDR's speeches and 'fireside chats'. Listen to the 'Day of Infamy' again as it was recorded in the House of Representatives, and see if you don't agree that the oral form somehow introduces a nuance which is not present when the printed form is read" (p. 980)

In discussing bibliographic sources for such information, Shores points out that they are underdeveloped but that the problem has begun to be dealt with by the National Association of Broadcasters Committee on Recorded Sound. He continues,

"Sooner or later libraries must develop a union catalog of the oral history holdings, not only of the 40 universities with established oral history offices, but of other agencies and sources. Perhaps among the federal funding opportunities there is a place for a major bibliographic undertaking in oral history" (p. 982).

He suggests that a more systematic effort be made to inform the public concerning "open" materials; that is, those which are available without restrictions of any kind:

"Just as most libraries exhibit and display printed material, it might be well for us all to have an oral program of particularly dramatic interviews that are open. These could be scheduled in the libraries where most oral history offices are located and publicized in the community, as well as on campus, to enlist support for the oral history movement" (p. 983).

b. Concerts and other public events.

1. ARSC should recommend only archival, non-commercial

use for unauthorized recordings.

2. ARSC should be against sale of recordings which did not have prior approval of performer and/or authorized representative.
3. For events of a special character (rare repertory, unusual performance situations, historic occasions, etc.) the organizers and managers of the event should not only authorize recording but even, if necessary, take steps to insure that it will be recorded under as desirable circumstances as possible; they should subsequently insure that a copy is available in at least one sound archive open to the public.

c. Radio and television broadcasts.

Networks and stations should assume responsibility for preservation in recorded form of all events of a special character. They should then make these available to the public for listening or viewing, either through their own facilities, or else through those of an institution open to the public. If the originating agency does not have space to preserve, then it should donate originals to an institution which does and which can make them available. Only the routine or the completely superseded should ever be destroyed.

d. Recordings for scholarly purposes.

These may be reasonably retained for personal use only until that individual's research has been finished. Then they should be available to other scholars, or to the general public if there is sufficient interest.

e. Recordings of wide appeal.

Owners should be willing to make these available in one form or another: in commercial form, through copies individually made (with a service charge paid by the person requesting a tape), or through the listening facilities of an institution.

f. Recording company masters.

Companies should be encouraged by every practical means to take the more "enlightened" view, and to realize that even though there may not be any commercial viability for

a recording at present, masters should in general be retained for possible future use. Before any master is destroyed, it should at least be offered to an institution for possible preservation.

- Thor E. Wood

2. Information to be provided by the maker or donor about individual unique recordings

Private Recordings of Western Art Music

There should be a statement indicating the place of the recording (city and hall or studio), the date, the contents of the program and the names of the leading performers. It is important to know the special circumstances of the recording, if any, and why it was privately recorded. Was an audience present? The duration of time of the music should be stated by the maker or donor. It is particularly important to know the details of the recording equipment used for private recordings, especially if it was not professional. This would include the type of recording machine, the types and the number of microphones, etc. In general, one wants to know how professional the recording was. Some information about the person responsible for the recording should be supplied, and about the donor, in order to judge the general worth of the recording.

There should be a statement indicating whether the recording at hand is the original, or a copy of some kind. If a copy, the location of the original should be stated and a description of it (date of recording, form, speed, etc.). If the copy has been electronically improved, full details should be given about this.

Field Recordings of Non-Western Music

Essential:

Place and date of recording. Performers (nationality, names of persons, their ages and sexes), names and descriptions of instruments, with pictures if possible. Recording equipment used, i.e., what make of recording machine, source of power, speed of recording (and whether constant), type of microphone, and whether there was a technical assistant charged with recording. Identification of collector and his background and expertise, and description of field trip (length of time spent in location, assistance from local experts, goal of study, likelihood of publication of article relating to the subject. The likelihood

of publishing a recording should be estimated.

For individual items on the recording, there should be identification of function, and the names of songs or dances, and of performers and instruments. The texts should be given in the original language and translation. If the texts have not been transcribed, then at least the identification of the language should be made, and the general sense of the texts given.

Desirable:

As general background for the items, the circumstances of the recording should be known, e.g., whether a traditional ceremonial, performed in its normal function, or individual performances for the collector at his request apart from the usual function (wedding, etc.).

The completeness of the sample needs to be indicated. Does the recording contain complete ceremonies or dances in normal sequence? Or was the collector accompanied by a national or other expert who decided what was to be recorded? What were the criteria of selection? What kinds of material were deliberately omitted?

Concerning the performers used as informants, one needs to know why they were chosen, and something of their background: were they illiterate, had they travelled much or known outside cultural traditions, were they regarded by the community as good performers? In general, did the collector find out the value judgments of the native community about his recordings? If there was a national or local expert assistant, what was his or her rapport with the local community?

Concerning the performances recorded, it is important to know whether they were approved of by the community as properly done with appropriate performers. Were the performers in good voice, or were there unavoidable drawbacks, such as expert performers too old to sing well, or to remember perfectly, or imperfect instruments?

A very practical set of desiderata was given by Dr. George List, Director of the Archives of Traditional Music at Indiana University (Ethnomusicology III (1959), p. 101), as follows:

"Most collections, including too much of the material that comes in to the Archives, are very poorly documented. Reels of tape are often not labeled or numbered, no indication is given as to where one song ends and another begins. There should be

an indication as to whether the current running the machine was 50 or 60 cycles. Information should be put on the reel itself, not just on the box. A pitchpipe note on the tape will identify the pitch of the song: if it is known what the pitchpipe note is supposed to be, then correction can be made for various odd speeds of tape. This can be added to the tape after the recording session if necessary. A minimum documentation: the culture (Human Relations Area Files classification is practical), the informant's culture (you might have a Japanese singing Korean music), location, date, title, if any, the instruments used, if any, texts, if obtainable. The ethnographer should consider himself a heaven-ordained documentor. If at all possible, with songs, full texts and translations should be obtained and information on the function of the song. Photographs should be included."

Spoken Word

On the whole, what has been said above for recordings of Western art music holds for this category.

For documentary material such as speeches, oral history, symposia, the background of the persons or events should be indicated, and photographs should accompany the recording, if possible.

- Barbara Krader

II. MAKING MATERIALS AVAILABLE FOR USE

A. DISCOGRAPHIES

Broadly speaking, the term "discography" refers to the recorded-sound equivalent of bibliography. Although strictly speaking the term would seem to indicate only flat-disc recordings, for the purpose of this report it will be taken to cover all forms of recorded sound materials (unless and until a better coinage is suggested).

I. General (encyclopedic) discographies

The general discography of classical music--essentially an international listing (more or less by composer and title) of all recordings--has been exemplified in the past by The Gramophone Shop Encyclopaedia (three editions, New York, 1936, 1942, 1948) and, more comprehensively, by The World's Encyclopaedia of Recorded Music (London, 1952; supplements, 1953 and 1957).

Despite the desirability of continuing this work, it seems unlikely that such a "universal" discography is any longer possible without the use of computerized information-retrieval techniques. The scale of worldwide disc and tape production, and the immense variation in form of issue, between different countries, of the same recordings, has produced an extraordinarily complex situation for the discographer--not merely in gathering correct information, but even more in presenting it in meaningful, usable form. Nevertheless, with the spread of recorded-sound archives and the increasing availability of out-of-print material to the serious researcher, some kind of international census will obviously be increasingly desirable, both for the archivist and the scholar. The monthly, quarterly, etc. national catalogs become annually more cumbersome as research tools, and at best are only useful for research along composer and performer lines.

It is strongly recommended that ARSC should explore and support any international project for the continuation of WERM or, failing that, the institution of a parallel enterprise.

II. National discographies

The national catalogs of currently available recordings are (in the Western nations, at any rate) all commercial ventures, sponsored by publishers or periodicals and tailored to the needs of the record store or the average purchaser. Of these, the Gramophone Catalogue (Great Britain; quarterly) comes closest to the standards of information (about contents, couplings, and performers) that would be useful to the professional archivist and serious collector; unfortunately, its quota of errors (both typographical and factual) has grown steadily over the years. The American equivalent, the monthly Schwann Catalog, offers still less detail; although contents of collections are listed upon release, cross-references are rarely made in the composer listing for shorter works, and these remain untraceable. Since such national discographies are the raw material for future acquisitions and for research (as the now-defunct record-company catalog was for the pre-1950 period), thought should be given to the question of a United States checklist of new releases; conceivably such a listing could be brought into being as a by-product of the depository requirements of the new copyright law.

(It should be noted that the record-company catalog does survive in one form: the numerical listing for inventory purposes, made available to dealers, and archives would be well advised to obtain these wherever possible--perhaps through arrangement to pick up the discards of a local dealer, or directly from the

companies if possible.)

III. Specialized Discographies

The types of discography are as multifarious as the types of bibliography. Many so-called publications are in fact merely handlists of extant, or available, recordings--suggestions for purchase or listening in a certain area, with or without evaluative comment. Particularly in the case of biographical studies, the appended "discographies" vary greatly in accuracy and completeness; many are ludicrous in their brevity or naivete.

For the amelioration of this situation, a possible function of ARSC suggests itself. Many similar organizations have in recent years established periodic newsletters reporting on "work in progress" by members, to facilitate exchange of information and to minimize duplication of research. If ARSC were to set up such a clearing-house of unpublished (and even uncompleted) discographic research, this could also serve, if appropriately publicized, as a reference source where authors working on biographical and historical projects could locate persons qualified to supply the information they need. (It would also, not incidentally, bring about the publication of useful material.)

Such a "clearing-house" could be established by mailing out questionnaires with the Journal (and then to all new members subsequently enrolled), and publishing the results, either in the Journal or separately.

A second proposal in this area would be the continuation of the Bibliography of Discographies, compiled by Carl L. Bruun and John Gray and published in Recorded Sound, No. 7 (Summer 1962), pp. 206-213. The usefulness of an up-to-date check-list of published discographies is obvious, and ARSC should cooperate with BIRS to make frequent supplements and revisions of this listing--and to extend it into areas other than Western art music.

Similarly, the Journal might usefully include a regular check-list of recently-published discographic publications (similar to the book lists in Notes and The Musical Quarterly).

* * *

Turning to the question of standards and needs in the area of technical, scholarly discography: in the long run, the most solid foundation for such work proceeds from numerical listings of the publications of the various record companies, giving the contents and performers for every recording published by a given

company. This is true for every area of commercial recording, whether serious, popular, spoken word, or whatever. Some useful starts have been made in this direction:

- 1) The series Voices of the Past (The Oakwood Press, Surrey, England; now 7 volumes); as the title indicates, this emphasizes vocal recordings, but attempts to account for every number.
- 2) Steven Smolian's list of RCA Victor Red Seal albums (published serially in The American Record Guide, beginning in May 1964).
- 3) The list of English Columbia LB and LX series (in the Bulletin of the BIRS, Nos. 11/12 (Spring 1959), 11-31 and 15/16 (Spring 1960), 8-13).
- 4) Dr. J. A. Leon's list of RCA Victor singles (Part 1, published by the author, Niteroi, Brazil, 1964); this is seriously flawed by its omission of information about non-vocal records.

Much remains to be done here, and it would seem appropriate that ARSC undertake to find ways of sponsoring and publishing such lists for the American companies of the 78 era (as a start; it may be assumed that these numerical series are now completed). The following information is desirable in such listings:

- 1) Catalog number
- 2) Side and/or matrix number, with the number(s) of the stamper(s) used for published versions, and the corresponding dates of recording
- 3) Composer and title
- 4) Performers
- 5) Cross-references to other catalog numbers under which the same recording was issued

Without access to the manufacturer's archives (in some cases no longer extant), the material under 2) will probably not be easily available; where it can be included, a clear statement should be made about its source, so that the user of the list may evaluate its reliability. Ideally, indexes should be provided for all such listings, both by performer and by title (and/or composer).

A subsidiary aspect is related to this type of discographical work: many numerical series included records of several kinds of music. Since ARSC's constituency includes collectors of various persuasions, the organization is in a position to encourage coordination of work on such problems, with mutual benefit to collectors in the several field. Strongly to be discouraged is the numerical listing that merely identifies a block of numbers as "Popular" or "Speech" without giving further details (to which the compiler must have had access in order to so identify the numbers).

(It might seem that the area of non-commercial private recordings would be less susceptible to such comprehensive coverage at the basic level, but there is a parallel area of research where a modicum of effort would produce results of considerable value to archives and individuals trying to assemble recorded documentation. Accurate handlists of the broadcast concerts of major musical organizations have been compiled by various collectors, and more could be done in this area (e.g. the nationwide network symphonic and operatic broadcasts of the 1930s and '40s, semi-classical series such as the Telephone Hour, and of course the many danceband and jazz programs--not to mention broadcasts by public figures). Even if network archives are not available for research, the radio pages--such as the weekly music listings in the New York Times--would be a useful source for such lists, which would be of interest not only to collectors but also to students of musical taste; consider the young American composers of the '30s and '40s who did not live in major cities and received much of their knowledge of musical literature--and especially current developments--from such broadcasts. Publication of such lists in an inexpensive format - resembling, say, the MLA Index Series - should be considered by ARSC.)

Given the variety of material and the multiplicity of physical forms in which material may appear, the question of standards for scholarly discography is a difficult one. Since the introduction of the malleable tape medium as the "Ur-"form of most sound recordings, it seems unlikely that performers of recent decades can be documented with anything like the thoroughness of Dr. Jerrold Moore's Elgar discography (Recorded Sound, No. 9 (Jan. 1963), pp. 7-42); the physical form of recordings available to the public no longer bears the tell-tale indications of matrix and take numbers, but merely numbers relevant to the manufacturing process. Too, given the kind of hanky-panky known to take place in the preparation of modern recordings, it seems highly improbable that record companies will divulge the necessary information (if, indeed, they keep any records of it at all). Therefore the standards for LP discography will inevitably be

less exalted and exact than those for 78 RPM records. The following preliminary guidelines are offered as a basis for formulating more detailed standards to apply to the various types of recorded material:

- 1) Accurate identification of the content (if the same performer recorded the same selection more than once, the information given under this heading should be sufficiently detailed to clarify the difference between versions)
- 2) Detailed listing of performers (in the case of early vocal recordings, this should most emphatically identify the nature of the accompaniment, even if the performer's name is not known)
- 3) Date and place of recording
- 4) Matrix and take numbers
- 5) All catalog numbers under which the recording was issued in its original form, with associated couplings; and all dubbings
- 6) Proper playing speed, where relevant
- 7) Description of label type and style

Perhaps of equal importance is accurate documentation of the sources used for the compilation of a discography--which records were actually available for examination and study, as distinct from those about which information was gleaned from secondary sources.

The physical arrangement of this information on the printed page is a matter not susceptible to easy generalization. Performer-oriented discographies are probably best arranged chronologically, according to date of recording, with an alphabetical index to titles if the list is large and there are duplications of titles. The possibility of including subsidiary catalog numbers in supplementary lists should be considered if their quantity makes the more traditional columnar arrangement unwieldy. In the field of jazz discography, where the personnel of a recording session is of primary importance, the format will probably be determined by the amount of this material to be included.

- David Hamilton