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Some Methodological Views

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Commercial Recordings and Source Criticism in Music Research: Some Methodological Views

By Risto Pekka Pennanen

Commercial audio recordings, cylinders and gramophone records among them, often contain extremely promising material for research on the history of music. Indeed, records bear witness to history and they can be utilised as sources in music research. The special characteristics of gramophone records as a source group, however, make them difficult to use, but source critical methods of modern historiography offer a solution. This methodological article addresses recordings other than those made for research purposes.

A discography is a systematic listing of recordings in all kinds of formats. Although discographies are usually considered as equivalents of bibliographies, John Cowley and Richard Noblett (2000) compare more sophisticated discographies to dictionaries in view of the problems faced in compilation, and the multiple disciplines they represent. A discography establishes all the facts that distinguish one recording from another, or identify a recording issued in more than one format, and may also distinguish multiple recordings of a work by the same performer (Weber 2001:376). At its most demanding, discographical research may be real detective work, as described in the meritorious study on the Levantine recordings of the German Favorite Company by Hugo Strötbaum (1992). ¹

Several factors limit the use of commercial gramophone records as sources. Although the systematic study of records started as early as the 1930s, comprehensive systematic national discographies are rare. Discographies can focus for instance on individual composers (Moore 1975), performers (Worth and Cartwright 1986), musical genera (Berger and Lammel 1980; Rust and Forbes 1987), instruments (Creighton 1974; Heier and Lotz 1993) or record companies (Lerski 2004). They can also be national (Strömmer 1981), regional (Franzén, Thelander and Vanberg 1998) or based on ethnic divisions (Spottswood 1990).

There are differences between scholarly field recordings and commercial recordings in the selection of repertoire and musicians. Scholars have often concentrated on pieces and genera which are archaic and rare, whereas commercial record companies

The leading scholarly publication for discographical research is The ARSC Journal published by Association for Recorded Sound Collections.

have tended to look for genera, pieces and musicians with commercial potential. Other factors affecting the choice of commercially recorded material are personal preferences of the recording technician or producer, and, occasionally, censorship. Not uncommonly, commercial recordings precede the earliest field recordings (see Pennanen 2003a, 2003b). Despite their differences—or rather because of them—commercial and field recordings are complementary. Together they give a wider and richer view of the history and genera of a musical culture (cf. Cowley and Noblett 2000).

Strongly rooted myths can cause mental blocks that tend to inhibit the use of commercial recordings in some branches of music research. The very term 'commercial' has horrified folk music researchers, who have concentrated on what they have considered 'oral', 'pure' and 'authentic'. According to the proponents of 'authenticity', commercial aspects of record production distort the 'authenticity' of a piece of music, 'commercial' here probably meaning 'having profit as a chief aim'. Commercially recorded material does not often meet the expectations of researchers with an obsession for 'authentic national folk music'. Furthermore, music researchers have not been particularly interested in considering how to apply historiographical methods to gramophone records. In point of fact, the relationship of modern ethnomusicology to the diachronical perspective in itself has been problematic (cf. Rice 1987; Shelemay 1987; Kurkela 1991 p. 86–89; Blum 1993).

There are terminological differences between discographical and music research. In the context of discographical research, the term 'historical recording' usually means a recording made before the standardisation of parameters such as revolving speed, recording process and reproduction curve, some of which were not finally standardised until the mid-1950s. In historically oriented music research, however, every recording is historical since it contains information from the past, whether it originates from three months or 120 years ago.

Owing to the early spread of the record industry to non-Western societies, old gramophone records contain invaluable material, documents of extinct musical cultures and genera, which cannot be studied except through them (cf. Gronow 1981; Racy 1976:23; 1988; Cowley 1996). Records as sources are most valuable when we study matters about which conventional written sources can tell only little or nothing at all. Such matters are performance practice and its evolution, as well as improvisation techniques. Memory-based, largely improvised Afro-American music has been studied for a relatively long time through commercial recordings (see e.g. Lilliestam 1988). However, researchers long accustomed to consider Western art music a written culture have usually based their analyses on written scores by composers (but see Bartels 1999).

The analysis of recordings opens up totally new vistas for scholarly work, which has been based traditionally on written documents. Good examples are research on Western art music as well as Catholic and Orthodox church music. The recordings of violin virtuosi, such as Pablo de Sarasate (1844–1908) and Joseph Joachim

(1831–1907), help us to study the European violin schools of the 19th century and the free interpretation of written scores that was still common at that time (see Pearl GEMM CD 9101; Pearl GEMM CD 9102). Recordings by one of the last *castrati* Alessandro Moreschi (1858–1922) in 1902 and 1904 and the somewhat later ones by the famous *protopsaltis* of the Patriarchate of Constantinople Iakovos Nafpliotis (1864–1942) contain a lot of forgotten performance techniques (see Pearl Opal CD 9823; Faistos 137).

The source value of recordings, however, is not an unambiguous matter. Due to the limitations of recording technology, especially in the first decades of the 20th century, musicians often had to alter their normal playing techniques, instrumentation and even musical style. The non-standardised revolving speeds and the limited recording time affecting the recording tempi and length of sections tend to render study of these recordings problematic. (Millard 1995 p. 100–101, 261–262). Thus, the utilisation of early recordings and their reissues in scholarly study demands scrupulous source criticism.

Source criticism is the estimation of the reliability of source material; it is one of the mainstays of historiographical methodology. Source criticism is either external or internal: External source criticism refers to ascertaining the historical origin and sphere of influence of a source, i.e. it strives to define the place and the date of origin as well as the originator and recipient of a document. It considers if a document is really what it purports to be and if it is connected to only one point in the past or if it has came into being on several occasions. External source criticism enables the use of internal source criticism, i.e. the interpretation of the content of the document and what the document can reveal about actuality. (Renvall 1983:167).

Primary and secondary sources

According to Jerome F. Weber (2001:377), archives of record companies are among the most valuable primary sources of discographic information, whereas record catalogues and labels are secondary sources. In reality, this distinction is not so clear: Company files, record catalogues and record labels can reveal different historical and cultural aspects of a recording.

There are several kinds of source groups generated by record companies. Firstly there are ledgers, in which details of recordings made are entered as reported by recording engineers. Secondly there are index cards for each side made showing for instance title and composer. Thirdly, some companies used artist's recording sheets containing only the matrix numbers and the recording dates.

Out of necessity, extensive discographies in particular are usually based on record company files. The files, however, do not always contain the same information as that printed on the label. A record catalogue may give a third data variant on record-



Fig. 1: The label of the Sibelius song "Flickan kom ifrån sin älsklings möte" in Swedish (text by J. L. Runeberg). The performer is the operatic singer Maikki Järnefelt, accompanied by her husband, the composer and conductor Armas Järnefelt on the piano. The Gramophone Company engineer Will Gaisberg recorded the side in Stockholm in October 1904. The matrix number 1313e—e being the indicating letter of Will Gaisberg for teninch recordings—is pressed in the shellac, whereas the catalogue number 83509 is pressed in the shellac as well as printed in the label. 'Helsingfors' (i.e. Helsinki) in the label denotes the residence of the performers.

ing data. Titles, musical genera, instrumentation, musicians and recording venue may vary in these three source types. While recording ledgers, index cards and artist's recording sheets can be used as primary sources for the recording date and the musicians, and the record catalogue may reveal aspects of a record company's marketing policy, the record itself is the primary source for the information the record can give.

At best a 78-rpm record as a physical object may yield a surprisingly large amount of information, both explicit and implicit (see Fig. 1). The label colour often indicates the issue series. The size of the record, the form of the edge, single- or double-sidedness and the empty starting groove or the lack of it give a lead for dating the release of the record. The label provides a lot of information concerning the contents of the recording: the record company, the title of the performance, the matrix, catalogue and sometimes censorship number, and often also the recording and manufacturing country, the composer, the lyricist, the arranger, the musicians, the producer, the instrumentation, the key or mode of the work, the genre and the language of the



Fig. 2: Newspaper advertisement by the firm Mehmed Prcić's Sons of Dolnja Tuzla, Bosnia, advertising gramophones and Bosnian recordings by the Odeon Company. (Srpska rijeÿ 18 April 1908. All dates are given according to the Gregorian calendar.)

target group of a performance (cf. Strötbaum 1992 p. 150–152; for the preventive censorship of recorded music in Greece, see Pennanen 2003c.).

Not all information on the label is always correct. The labels may have been reversed. Also, an erroneous genre name or instrumentation is not uncommon (see Rust 1980 p. 32–33; Pennanen 1999 p. 20–21). The name of the performer may be a pseudonym; some professional musicians trained in Western classical music recorded popular music under pseudonyms in order not to risk their career in the classical music scene. Musicians who have a contract with another company have used pseudonyms (see Sutton 2001). The reason may also have been the marketing policy of the record company: In order to cut down the costs and maximise profits the same instrumental recording could be marketed for several target groups under different artiste name and title. For instance the Jewish-American Abe Schwartz's Orchestra usually recorded East European dance music—mainly Jewish, Russian, Ukrainian, Rumanian, Lithuanian and Polish—under various names, but in 1929 it also recorded four pieces, under the name Columbia Greek Orchestra, which were aimed at Greek-Americans.

Newspapers are an important source group for discography, and sometimes newspaper advertisements can give raise to completely new findings. Without a painstaking reading through volumes of Bosnian newspapers, it would have been very difficult to discover that besides the Gramophone Company, two German companies, namely Odeon and Lyrophon, made recordings in Bosnia in circa 1907 (see Fig. 2). These companies have been little exploited in research and there are no comprehensive discographies on them, largely because their archives were destroyed during the Second World War.

Dating and discography

The matrix number on the label or in the wax will yield the date of recording if the researcher can compare it with discographies, other contemporary recordings already dated or the archive files of the record company. The catalogue number helps to estimate the release date of a record if company files, relevant newspaper advertisements, music magazines and annual record catalogues and their monthly supplements are available. One may also be forced to base the dating on the contents of a recording. If an USA recording by a major record company is acoustic rather than made with a microphone, we may conclude that it was made before 31 March 1925.

Initially record companies tried to keep the new invention a secret in order not to jeopardise the sales of their huge stock of acoustic recordings: nothing about the electrical recording process was mentioned on the record labels. However, for instance Columbia matrix numbers containing the letter W indicate microphone recording. The period of secrecy did not last long, as Victor revealed the invention on 2 November 1925 when the Orthophonic Victrola gramophone designed for listening to electrical recordings came on the market (Borwick 1995). However, one should bear in mind that acoustic recordings were made by smaller USA companies till the end of the 1920s (Millard 1995 p. 144), and the sound quality of some early non-Western microphone recordings is not as high as one would expect from the electrical process.

Defining the recording and release date requires a thorough knowledge of discographical methods (see Rust 1980; Gronow 1991 p. 231–234). An unskilled discographer may easily go astray. A notorious example of difficulties in dating historical recordings is the totally unreliable Greek reissue of early *rebetika* recordings, whose English title is "The first rebetika songs: historic recordings 1900–1913" (CBS 53753), edited by the Greek Tasos Shorelis in 1976. Shorelis had no hesitation in dating the recordings for the reissue because the recording dates—as he thought—were printed on the labels. Thus, according to him, the recordings were made by Greek-American musicians in the USA between 1900 and 1913 for the Columbia Record Company.

There are several facts to cast doubt on the assertion that the first Greek-American recordings in more or less original styles were made during the period from 1900 to 1913. It is true that Greek emigration to the USA was remarkably high in the early 20th century. Between 1901 and 1910 alone 167,519 Greeks were recorded as entering the USA, although not all Greek immigrants stayed in the New World. Some of them returned home after a period in the USA. (Saloutos 1964 p. 45). Nevertheless one may safely assume that there was a market for Greek recordings in the USA. However, although 13.5 per cent of the population of the USA were immigrants at the beginning of the 20th century, record companies were not particularly interested in selling ethnic gramophone records. Instead, they offered European national anthems and other well-known songs with studio orchestra accompaniment. The number of available folk and popular music recordings in more original styles increased only gradually. (Gronow and Saunio 1998 p. 46).

This is why the earliest of Shorelis' datings, 2 January 1900 for "Ah melahrino mou" by the singer Lefteris Menemenlis, looks spurious. The dating is also doubtful because of the sound quality, which is surprisingly good for a recording from as early as 1900. Shorelis bases his dating on the record label, which reads "Made and Pat. Jan. 2. 1900 ©Columbia Phonographic Company, Inc., New York U.S.A.". In reality this date refers to the patent number 640,367, i.e. free-screw disc type for talking-machine by George K. Cheney (Koenigsberg 1990 p. 9). Thus, the date has nothing to do with the recording date. In addition, different pressings of the same record released successively may carry different patent dates, as new technology was patented and adopted. There may be several patent dates and the text "other patents pending" on a single label, which makes it difficult to identify them logically with a recording session date.

If the dating is not reliable, what about the place of recording? Lefteris Menemenlis was an Ottoman-Greek singer and he is not known to have ever visited the USA. He died in Istanbul in the early 1930s. So, when and where was "Ah melahrino mou" actually recorded?

The catalogue number for "Ah melahrino mou" is Columbia E-6073, but the label also bears the numbers 1-55030 and 4501-t, which differ greatly from the standard Columbia practice. This is no wonder since the Columbia E-6000 series were pressed from European matrices. The number 4501-t is a matrix number of a recording made for the Favorite Company , while 1-55030 is a Favorite catalogue number. Thus "Ah melahrino mou" was probably recorded on 10 February 1911 in Constantinople for Favorite (see Strötbaum 1992 p. 186). According to Richard Spottswood (2000: pers. comm.), Columbia E-6073 was released circa 1912 in the USA. This concurs perfectly with the recording date.

Columbia used one catalogue number to identify both sides of a pressing while Favorite used a different catalogue number for each side.

We can see that Shorelis' editorial work is less than meticulous, far more so than is permissible in a historical reissue. Of all the claims he makes on the recordings, only performers and titles hold good. However, most of Shorelis' fatal errors could have been avoided with a basic knowledge of singers' biographies.

The dating problems in Shorelis' reissue exemplify the principle according to which the examination of sources is based on their mutual comparison within a larger group of sources. A single source can be utilised only if it is compared with other sources (cf. Dahl 1970 p. 41). Therefore a record and the recording it contains should be compared with other relevant records and recordings and data received from other source groups, i.e. record company files, record catalogues, record reviews, newspaper advertisements, interviews, photographs and films.

The authenticity of a recording as a document

The term 'authenticity' applied to a recording as a document, refers to the circumstance that the recording is truly what the data connected with it purports it to be. For example, the piece, the musicians, the instrumentation, the recording date, and the record company should be the ones actually connected with the recording. In other words, according to the principles of source criticism, all information in the source should be mutually corroborative or further corroborated by other sources. If this is not the case, even stricter source criticism is needed. If the discrepancy does not vanish, the previous position on the source must be changed: the source is not what it purports to be. Instead, it is spurious. (Dahl 1970 p. 44–45; Renvall 1983 p. 187).

There are several types of spuriousness. A document may have derived from a different era or origin than it seems to be from. Such an item is at best the result of a pardonable human error of interpretation, at worst a forgery. Something may also have been removed or inserted in the document, and the document is distorted or forged. In these cases the source value of the document is different from an authentic, original and whole document, but the document can still be used as a source. However, the functions of such a document differ from those of genuine and intact documents. After we have revealed the spuriousness of a document, we try to find out its real function through external source criticism. After this we can evaluate the usefulness of the information it carries. (Renvall 1983 p. 187–188).

A downright forgery can be exposed as follows. If some characteristics of the contents differ from generally known facts, we compare the external features of the suspected forgery with other relevant documents. The comparison is bilateral: on the one hand we examine documents of the same origin and on the other hand we examine documents of the same historical environment as the dubious document. Thus we reveal the functions of the forgery. (Renvall 1983 p. 188).

The following examples are deliberate forgeries. In the late 1940s, the Finnish Sointu record company rereleased recordings from the 1930s under new titles; due to the boycott of the Finnish record business trust Sointu was not able to find a studio for recording new material. (Maskula 1999 p. 2-3). Sometimes the same company released recordings by lesser known foreign orchestras under the Finnish name Viljo Vesterisen solistiorkesteri (The Soloist Orchestra of Viljo Vesterinen) (Pekka Gronow 2000: pers. comm.). To reveal the forgery, we can first try to see if the matrix number refers to another era or origin than it is supposed to do. We can also compare the playing style and sound on an authentic Viljo Vesterinen recording with the same factors on a suspicious recording.

The next example is not a deliberate forgery but a human error. It is acknowledged that there is only one recording with Jean Sibelius conducting his own work: The slow "Andante festivo" recorded on an instant record on 1 January 1939 conducted by the composer was recorded on instant disc by the Finnish Broadcasting Company on 1 January 1939. This recording (Scandia SLP-567) was issued for the first time in 1972, and ever since it has been regarded as a unique document on Sibelius' conducting style and his personal view of his own music—Erik Tawaststjerna (1988 p. 116–117) has used is as a source. In 1995 it became apparent that the reissue was not what it seemed, but a recording by an unknown conductor. The genuine "Andante festivo" recording by Sibelius that was discovered in the archives of the Finnish Broadcasting Company was not as slow as the inauthentic interpretation. The authenticity of the newly discovered recording was apparent since in 1939 Sibelius conducted from the original manuscript in which he wrote alterations which are audible on the authentic Sibelius recording but not on the inauthentic one. (Karttunen 1995: Ondine 2001).

The advent of sound-editing, overdubbing and multichannel techniques complicates the question of authenticity of sound recordings compared to that of historical documents. Edited recordings cannot be evaluated simply by means of conventional source criticism; the researcher is thus obliged to consider the particular aspects of music produced by means of the various studio technologies. After the introduction of tape recorders, recordings lost some of their previously direct relationship with the realistic reproduction of a live performance; musicians were able to modify their recordings afterwards. Large-scale works of Western classical music are very seldom recorded in one take; the great symphonic interpretations of Arturo Toscanini (1867–1957) were put together from several takes (Rust 1980 p. 13; Gronow and Saunio 1998 p. 121–122). Another example: the Italian-American tenor Mario Lanza (1921–1959, only sporadically able to sing as magnificently as Enrico Caruso (1873–1921), was unfortunately subject to technical lapses in voice production, and his recordings were extensively edited with the aid of studio technology (Gronow and Saunio 1970 p. 122).

Reissues as sources

Finding original 78-rpm records for research work is not always simple. Records can be bought for example in second hand shops and record auctions. Records can also be copied from musicians' and collectors' private collections or record companies and public archives. However, recordings are easier to obtain through reissues. There are several voluminous reissue series available on the market. For instance, the anthology "Arhio ellinikis diskografias" ("Archive of Greek discography", EMI-Minos 1994-), edited by the prominent Greek discographer Panayiotis Kounadis, is to contain over one hundred volumes (see Pennanen 1995).

Voluminous reliably edited source collections are vitally important from the point of view of historical musicology. However, when compared to scholarly edited source collections of historiography, reissues of popular music are very often of surprisingly poor quality. Perhaps this is because research into popular music is still a young discipline. In addition, record companies have not considered historical popular music worthy of painstaking editorial work. Therefore, instead of an original or restored historical recording there may be a distorted or forged document. Most reissues do not contain even basic discographical data, not to mention commentaries with source references shedding light on the background of the recordings and musicians.

There are many problems in sound-engineering historical recordings from the period before the standardisation of, for example, revolving speed, recording process and reproduction curve. The original matrices of superb sound quality are usually not available, and recordings can rarely be transferred to a new format from them (but see Traditional Crossroads CD 4266). Some record companies—the EMI among them—have preserved sample copies of early recordings in their archives. Such unplayed archive copies offer very good sound quality. However, usually reissues are based on used shellac discs in variable condition. Transferring from one format to another is a demanding task. It is no wonder that the sound editing of many reissues is far from perfect.

The speed of recordings may vary considerably; a 1910s recording may have been recorded at 72 as well as 90 rpm. 78 revolutions per minute became standard only in the late 1920s. Relatively often the standard 78 rpm, however, is not the correct revolving speed: 72 to 76 and sometimes even 80 to 82 rpm were used for recording. In some cases this is verifiable though the spectrum analysis of mains hum in the recording. Finding the correct revolving speed is essential in sound editing: A change of four revolutions per minute in playback causes a difference of a half step in pitch. (Pekka Gronow: pers. comm. 2001). Interestingly, during the acoustic era, the speed suggested to customers by record companies was deliberately two or three rpm greater than the recording speed, as this gave a brighter sound during playback. (Brock-Nannestad 1984 p. 925–926).

The change of revolving speed to fit modern concert pitch is often incorrect since

editorial work does not mean the standardisation of pitch in historic recordings according to modern practice.³ For example it is known that in the acoustic period, French studio recordings adhered to the Standard Conservatory Pitch (a₁=435 Hz) while The Gramophone Company studio recordings were mainly in Old Philharmonic Pitch (a₁=454 Hz) (ibid. p. 925). Additionally, the temperature in the studio can even alter the pitch of instruments with fixed tuning.

In the analysis of a recording, deviations from the original performance cause many kinds of problems for the scholar. The tone colour and tempo are not original, and the analysis of instrumental technique may result in incorrect conclusions.

An example of the deviation form the 78 rpm standard is the Finnish 1935 recording "Heipä hei" by Rytmi-Kolmoset and Rytmi-Pojat under Eugen Malmstén (6180 1/2 GR; Polydor S.50 463 A). In a reissue LP (Sound Cat MILP-197) it lasts for 3'08, but in a later reissue CD (Sound Cat MICD-197/198) the duration is 3'14. Even the former reissue sounds strange: the wind instruments lack brilliance, and it is difficult to identify the slightly rumbling vocalist as Eugen Malmstén. In the subsequent reissue these characteristics are even more marked.

The recording engineers of "Heipä hei" from Germany visited Finland with portable recording equipment. The revolving speed of this equipment was difficult to adjust, and it could change owing to variation in electric current. Therefore the revolving speed of the record cutter could be other than the standard 78 rpm. When the original "Heipä hei" record is played at standard speed, the key is somewhere between D major and E flat major. Obviously this cannot be correct. In the LP reissue the recording has been transferred as such from the shellac disk. The editor of the CD version has noticed the error and taken the standard pitch of instruments with fixed tuning as his starting point. Thus, he has lowered it to D major, although then B flat wind instruments would have been played in the awkward E major. (Wuori 1994; Pekka Gronow 1996: pers. comm.). The wind instrument tone colour, key and Eugen Malmstén's vocal colour suggest E flat major as the right key; instead of slowing down, the recording should have been speeded up.

Furthermore, recordings made before the standardisation of the recording curve are very often transferred to reissues using the modern RIAA (Record Industry Association of America) recording curve. In December 1957 the RIAA established a standard for the reduction of amplitude, and thus amount, of lateral displacement demanded on the disc by the low frequencies, and simultaneously for boosting the high frequencies when cutting discs, and for equalising them on playback (Millard 1995 p. 213–215). Differences in sound between the original curve and the RIAA

Finding the correct revolving speed and pitch is especially difficult when the editor restores unique material without reference points. The seventeen recordings of the castrato singer Alessandro Moreschi presented such a dilemma since at the beginning of the restoration process nobody knew how a castrato voice should sound (see Wolfson 1987).

^{4.} Originally "Roll along, covered wagon" by the Irish-American Jimmy Kennedy.

can be very obvious: pre-RIAA recordings lose brightness and sound too bass when played on the RIAA.

Sometimes a low-quality source publication does not contain the recording in its entirely as on the original 78 rpm disc, which inhibits transcription and music analysis. Reissued recordings can begin with an imperceptible fade-in in the introduction, leading to a situation where accented beats seem to avoid regularity and the time signature or rhythmic mode of the work is unexpectedly difficult to elucidate. In such cases we must use external source criticism and consider if the work is not reproduced in its entirety. The conclusion on the source value of such a reissue is that the editor is not familiar with music research and has not meant the reissue to be used as a scholarly source. Therefore its use demands careful source criticism.

Such careless sound engineering and editing policy is typical especially of Greek popular music reissues made in Greece (cf. Smith 1989, 1991). In the 1970s during the first stage of the rebetika revival, the editor of several historical reissues, Kostas Hatzidoulis, was in the habit of ending all performances with a fade-out (e.g. EMI Regal 14C 034-70364). This reduces the value of the reissues as sources since we do not know how each performance ends in its original form. The section omitted may possibly contain important information, such as interjections with musicians' names. Fade-out has been the standard closure of Western pop songs since the 1960s, and possibly Hatzidoulis wanted to modernise the historic recordings by using this effect.

Sound-restoration is an important part of editing early recordings. It can remarkably improve the sound quality of recordings; it can make weak or totally inaudible instrumental sounds audible and redress distortions caused by limitations of early recording technology. (See Thomsen 2001). Sound-restoration can have radically different goals—at the one extreme to return as exactly as possible to the moment of recording as it could be captured at that time, without applying modern aesthetic desires—at the other extreme to employ modern state of the art technology to 'improve' the original information by removing the historical limitations. According to the sound engineer Robert Parker, 1920s jazz recordings were often made in rooms and halls with an unnaturally dry acoustic quite different from the normal venues where the bands would have played live. Sophisticated computer processing of painstakingly well transferred 78s can give amazingly convincing "Dolby Surround Stereo" results which perhaps in some sense are more 'authentic' than the original discs. (Sancton 1992).

The positive sides of sound-restoration are evident. For a long time it was thought that the extensively recorded Enrico Caruso's vocal technique was not complete: Caruso's recordings seem to reveal that his tone colour changed in the upper register. This impression was based solely on recordings; other contemporary sources do not mention this. After the digital restoration of the recordings it was understood that the shift in his voice on the recordings was due to resonance in the recording horns.

^{5.} I am indebted to Tony Klein for offering a formulation of these views on sound restoration.

(Gronow and Saunio 1998 p. 18).

Internal source criticism: What can the early commercial recording tell us?

Internal source criticism clarifies what a document tells or can tell about the past, i.e. to what extent the information in the document corresponds with actualities. However, the most important duty of internal source criticism is not judging the reliability or unreliability of a document, but considering the probative force and accuracy of the things related in a document. (Renvall 1983 p. 198, 203).

Then, what kind of irrefutability and accuracy do historical recordings have? One could claim that commercial historical recordings are not direct documents of contemporary musical culture, but documents on the culture of recorded music filtered several times. Commercial recordings were made for profit rather than for serving as an archive for future scholars: Not all music was by any means recorded, and the recorded music was not always performed in the studio similarly as it was real life; instrumentation, performance practice and musical structures may have differed considerably (cf. Gronow 1982 p. 16; Rice 1994 p. 240–241).

For instance, the most important characteristic of a folk dance band in East Europe was traditionally a wide repertoire and the ability to play for dancing. Dance pieces consisted of a few sections that were repeated over and over with variation. One dance may have lasted for a good 45 minutes if the dancers so wished. In contrast, the maximum length of a normal 78-rpm record was only three to four minutes. Thus, klezmer pieces of East European Jewish origin were shortened and they were given more specific titles instead of the traditional genre names such as "Freilechs", "Hora" or "Chosid'l". (Slobin 1984 p. 194–195; Sapoznik 1987 p. 12).

The technical limitations of early recording technology have influenced recorded music. Before 1925 and the advent of microphone recordings, acoustic recording technology limited the instrumentation of recording ensembles and forced instrumentalists to change their normal playing techniques. Only full, even voices could be utilised, and all nuances, such as pianissimo effects, had to be omitted. For instance, one Stroh violin, its trumpet close to the singer's ear, could be the sole representative of the string sections, and the violinist had to exaggerate the pizzicato, glissando and vibrato characteristics of his instrument to make it audible. Wind instruments had to be used instead of violins. (Gaisberg 1947 p. 43–44, 80).

For similar reasons ragtime piano solos were not common on records at first in spite of the central role of the piano in ragtime. Instead, from the viewpoint of recording technology, the solo banjo accompanied by the piano was a better combination than the solo piano (Millard 1995 p. 98). It seems that the record industry affected the spread and popularity of such orchestrations. However, early recordings

do not necessarily tell us what kind of instrumental combinations were common outside recording studios (Sapoznik 1987 p. 12; Berlin 1980 p. 78, 149).

An electrical process utilising one microphone freed the frequency and loudness ranges from earlier restrictions. It expanded the frequency range and improved dynamics; in 1925 it also became possible to record large ensembles and concert situations (Borwick 1995). Thus, historical microphone recordings are usually closer to contemporary musical reality than their earlier acoustic counterparts.

Commercial recordings also had an effect on the stylistic side of music. New ideas, styles, interpretations, techniques and pieces could be spread through recordings and even supersede earlier ones. An illustrative example of the spread of an innovation in the record market is "Ukrainske wesilia" (Ukrainian Wedding) (Columbia 70002-F) recorded in New York in 1926 by the comic actor and singer Ewgen Żukowsky, the singer Nasza Roza Krasnowska and the violinist Pawlo Humeniuk. 6 This two-sided dramatisation of a Ukrainian wedding, lasting for eight minutes, contains a wealth of material: the arrival of the wedding guests, the speech of the matchmaker, the lament of the bride's mother, bell ringing, the blessing of the bride and groom, the speech of the groom's father, congratulations, the weeping of the bride and her mother and plenty of singing and dance tunes. The dramatisation was an enormous success among homesick Ukrainian-Americans and other East-European immigrant groups in the USA: during the next 25 years it sold over 100,000 copies. The huge success of the record was due to the fact other East-European nationalities besides Ukrainians bought it although they did not understand Ukrainian. (Spottswood 1982 p. 60; 1993 p. 3-4). Memories of Europe were still fresh in the minds of the first-generation immigrants.

For the recording trio, "Ukrainske wesilia" guaranteed a studio career with further successful dramatisations (ibid.). In addition, "Ukrainske wesilia" had a deeper impact on the culture of recorded music: a new recording genre was born. American record companies started releasing nostalgic dramatisations containing Old World folk customs and folk music for the large immigrant population. It seems that the genre was also adapted into recordings of American rural music. Simultaneously, European folk music proper found its way increasingly onto gramophone records.

^{6.} All Ukrainian names have been transcribed according to Polish orthography since this was a standard practice in Ukrainian-American records.

For example "Zaruczyny" (Engagement Celebration), "Chrestyny" (Christening), "Na wesiliu pid chatoju" (Wedding Under the Eaves) and "Do Poczajewa na widpust" (Pilgrimage to Pochayiv) (see Arhoolie CD 7025).

^{8. &}quot;Naimahommia 1–6" (Courtship) from 1929 by Ernest Paananen (see KICD 34) were marketed for Finnish-Americans.

^{9.} Spottswood (1982 p. 60–61) points out the similarities between "Ukrainske wesilia" and the 1927 recordings "A fiddler's convention in Georgia" and "Corn licker still in Georgia" by the (North Georgia) Skillet Lickers band. The moonshining and Prohibition themes by the Skillet Lickers and others remained popular, and even the ethnic series eventually featured a few.

This is remarkable, since at that time in Europe record companies often favoured folk song arrangements sung in the classical manner to piano accompaniment (Gronow and Saunio 1998 p. 47; cf. Spottswood 1982 p. 61–63).

We can evaluate the source value of the immigrant folklore dramatisations through internal source criticism. There is little sense in trying to analyse the European folk music of the 1920s through them. Most of these dramatisations aim at creating an impression of national culture by combining elements from local cultures according to 19th-century romanticism. One could suppose that the dramatisations are studio arrangements of folkloric plays, which were performed at nationally oriented organisations in Europe and later in immigrant communities in the USA. For example Finnish-American Kalevala clubs were approximately what was called pejoratively "birch-bark shoe culture" by the Finnish Left in the 1960s. Thus, recorded folkloric dramatisations in the USA tell us about the conception of folklore in immigrant communities rather than about the European folklore proper of that era. There are other kinds of immigrant recordings which can be used for the study of early European folk music proper.

Conclusion

Discographical research generates documentation essential for the scientific collection, archiving and study of recorded sound, and is thus extremely important for the historically oriented study of music. The importance of reissuing historical recorded material with the judicious use of sound recovery and sound restoration techniques cannot be overemphasised.

It would be truly desirable for the two main branches of music research, i.e. ethnomusicology and the musicology of Western art music, to revise and expand their views. Ethnomusicology could enhance its diachronic perspective, and the study of Western art music could divert some of its attention from scores to performance practices as documented during the era of sound recording.

It is indeed the duty of all historically oriented musicologists to use this common denominator of reliably edited discographies and reissues. Incorporating the use of such editions of source materials, and improving our routines and the quality of our source criticism, would help us to bridge the artificial division of our discipline which is a relatively common phenomenon especially outside the Nordic countries.

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KICD 34 Finnish-American recordings 3. Ernest Paananen: Naimahommia.

Ondine 2001 Sibelius favorites including Sibelius conducts Sibelius.

Faistos 137 Iakovos Naupliotis. Patriarhikoi psaltes No 1.

Pearl GEMM CD 9101 Great virtuosi of the Golden Age 1: Ysaye, Sarasate, Joachim, Elman, Powell.

Pearl GEMM CD 9102 Great virtuosi of the Golden Age 2: Kubelik, Kreisler, Thibaud, Hall, Drdla, von Vecsey.

Pearl Opal CD 9823 Alessandro Moreschi: the last castrato. Complete Vatican recordings.

Scandia SLP-567 Historiallista Sibeliusta 3.

Sound Cat MILP-197 Eugen Malmstén ja Rytmi-Pojat 1935–1937.

Sound Cat MICD-197/198 Eugen Malmstén ja Rytmi-Pojat: Unohtumattomat.

Traditional Crossroads CD 4266 Istanbul 1925: classic recording from the Middle East made from the original metal parts.

Summary

Commercial Recordings and Source Criticism in Music Research: Some Methodological Views

Although traditionally avoided by most musicologists, commercial audio recordings contain extremely promising material for research on the history of music. Source critical methods of modern historiography may offer solutions to difficulties caused by the special characteristics of gramophone records as a source group. Here, the initial application of external source criticism in order to ascertain the historical origin and spheres of influence of a source may then be followed by internal source criticism, which enables the researcher to interpret the content of the document, and to extrapolate what it can reveal about contemporary reality. This methodological article addresses such issues as dating recordings and using reissues as sources. It contains several analysed examples from the Balkans, Finland, and the USA.