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**FROM PRESENTATION TO REALITY, FROM PRESERVED TO HEARD**  
**Experience in the digitization of analogue sound recordings**  
**in the Music Collection of the National and University Library in Ljubljana**

**Abstract:** The Music Collection of the National and University Library also stores a set of historical sound recordings representing a rarity in the frames of Slovenia. It consists of approximately 50 old sound recordings, mostly from before the World War II. These recordings are not reproducible any more with classical gramophone equipment, and shellack from which these records are made is extremely fragile. For the purpose of protecting the records themselves and to enable listening to them it was decided to transfer the sound recordings from analogue medium to the digital one.

An audio source can represent a starting point for further research of the outline of the significance of this outline of discographic production in Slovenia from the point of view of history, culture and publishing activities. On the level of basic tasks of the National and university library, performed digitization enabled revitalization and access to forgotten and technically inaccessible Slovenian artistic cultural heritage. It reveals interpreting, receptive and stylistic traits of the time which we were so far able to reconstruct only in frames from secondary sources (published reports and critiques, memories, correspondence etc.). For the understanding and study of the history of music this acoustic documentation is of unprecedented value and adds to the central role of the national library, i.e. collecting, preserving and use of important cultural heritage.

The present contribution is presenting the concept and methodology of work in detail, as well as the process of the transfer from analogue to digital format, the organization of metadata: as well, it concentrates upon the experience and exposes the results, followed by the description of starting points for further plans for the digitization of music periodicals, printed music, manuscripts and correspondence.

**Key words:** digitization, metadata, analogue sound recordings, gramophone records, music archives, history of music

The Music Collection of the National and University Library in Ljubljana is, as to its contents, activities and holdings, the biggest music library in Slovenia (there are some others operating in the frames of music schools, faculties, the Academy and the Institute, but they are much smaller and tailored to the needs of their users. The Music Collection is one of seven collections operating in the frames of the library. The collection performs two functions: national and university. It became self-contained in 1948, although (which is not unusual for music collections) squeezed in a dark and small place somewhere under the top of the magnificent Plecnik building.

Information sources in the collection are the following: classical catalogues in the premises of the Music Collection (1948-1993), on-line catalogues, accessible to the users through OPAC and lately also the so-called e-library enabling access not only to metadata but also to the sources themselves.

E-library in itself represents a specific challenge, dealing with archiving and preservation of library materials by migration to digital medium, with extended access to them, with the possibility to listen to whatever was written, with the transcription from the analogue to the digital. Ideas are swarming, technological possibilities

almost without boundaries. However, solid and useful output requires exquisite discipline which includes the following:

- well-judged choice of materials,
- considerate decisions,
- preliminary financial plan (cost/efficiency analysis),
- sensible staffing,
- concise and continued work,
- efficient results from the user's point of view.

**Our experience.** Among the materials of the Music Collection there is also a compilation of historical music recordings representing a rarity in Slovenia and containing approximately 50 music recordings, mostly from the period before World War II. These recordings can no longer be reproduced by classical gramophone devices, and shellac from which the records are made is extremely brittle and fragile. The records were kept in protective envelopes and stored in proper temperature in humidity conditions. The last was furnished with a receipt which is of relatively recent date. They were acquired by the collection approximately 15 years ago – most of them were gifts from Slovenian emigrants, the rest came from private collectors. They were regarded as a technological antique, superseded by acoustically and more user-friendly acquisitions. Their owners were mainly giving them away because they “have served their time”. However, in Slovenian musicology, the interest in historical music reproduction has always been vivid, especially interest in the interpretation of different versions of vernacular creativity. The answers so far have been only theoretical, based on written sources and acoustic representations. The existence of sound recordings is documented in different publisher's catalogues and in ads in newspapers – but the actual locations of the sources has been hidden so far. There were no bibliographic records for these gramophone records – therefore hidden away from the probing eyes and ears of the researchers. Because the collection was not very big the librarians got used to this never bibliographically processed group of resources.

Financial injection from the outside and the interest of a computer specialized colleague in the migration of sound materials from the analogue to digital medium enticed the project with a simple title DIGITIZATION OF OLD SOUND RECORDINGS. Taking into account the development of electronic technology and the practice and experience elsewhere (Good Practices Handbook (version 3.1), edited by Minerva Working Group 6) and the requirements of the information society, a work group was set up (3 computer specialists and 1 musicologist-librarian) with multilayered goals:

1. To make possible the authentic hearing of a sound recording.
2. To clean the sound recording from noises and cracking.
3. To preserve the recording on a digital medium.
4. To make a bibliographic record in the bibliographic system COBISS for each recording.
5. To enable remote access to the recordings for the users.
6. To define a quality user interface.
7. To define automatic migration of metadata.
8. To create a useful web page with lists, interesting for the researchers.
9. To define search possibilities.
10. To define possibilities for the export of recordings and metadata.
11. To successfully protect and store the original resource – the shellac records.

So now we have here approximately 100 Slovenian compositions, mainly performed by solo singers (with piano or orchestra accompaniment) and by different orchestras and smaller vocal groups. Independent instrumental performances (usually the accordion, wind instruments orchestra) are rare. We can listen to the recordings of the singer and theatre actor Avgusta Danilova who recorded for Columbia Records in New York around 1918 and later for the company Victor Talking Machine. She was accompanied on piano by her brother Ivan Subelj. His brother, tenor singer Anton Subelj recorded on his own or together with soprano singer Aneta Mandic and always accompanied by a so-called “sramel” trio or quartet (an orchestra playing entertaining or dance music with changing cast – two violins, accordion or piano and clarinet or guitar, typical for Austrian restaurants and gardens in the second half of the 19<sup>th</sup> century). They sang popular versions of Slovenian country songs. Slovenian singers Josephine Lausche and Mary Udovich succeeded with the same genre. They usually performed as a duo and their songs are preserved on gramophone records of Columbia. Around 1930, the company Elektroton recorded popular country songs sung by duo Mirko Jelacin and Drago Zagar.

At the end of 19<sup>th</sup> and the beginning of 20<sup>th</sup> century there were not many Slovenian instrumental orchestras and they often had many problems, so the recording of military Band of the Drava Division playing the composition of the Slovenian romantic composer Viktor Parma titled Salute to Gorenjska is of extreme importance. A real rarity is also represented by its follower, the Country Band from Ljubljana, recording after the World War II with the Zagreb company Yugoton.

It is not surprising that among rare old records recordings of waltzes and polkas of the emigrant Slovenian Matt Hoyer were found too. Matt was born in 1891, left Slovenia in 1911 and settled in Cleveland. There he perfected his musical talent stemming from the experience of traditional Slovenian popular music. He excelled in his play on button accordion and the audience delighted in his “sweet to the ear” melodies. The music played by his orchestra called Hoyer trio became extremely popular and enticed a movement which was later called “Cleveland-style Polka movement”. Today, he is known as the “grand-daddy” of button accordion players and pioneer performer of Slovenian polkas and waltzes in the United States.

The Hoyer Trio was among the first entertaining orchestras in America and recordings took place one after the other. Around 1919 recordings were made for the company Victor Talking Machine, later also for Columbia and Okeh Records. So the movement Cleveland-Style Polkas developed further and was finally acknowledged as an artistic genre outside the borders of Slovenian ethnic territory. Among our recording there is also their hit piece, a polka arranged from the Vienna march titled Vienna stays Vienna.

The complete repertory is therefore limited to arrangements of popular songs and to artistic compositions, and partly also to “funny” sketches with singing. Gramophone records were published by different, in most cases foreign publishers, among them Columbia, Victor Talking Machine, Elektroton, Edison Bell Radio, His Master’s Voice, Odeon and others.

Digitization therefore enabled a professional insight into a cross-cut of our recording activities and their extent from a certain period of Slovenian music history, mainly of the period before the World War II, a thorough bibliographic processing of the resources and the composition of efficient metadata or basic information about the materials all of which adds to the survey of the state of the preserved documents and to, last but not least, an authentic acoustic experience. Our project can serve as a starting

point for further research of historical, cultural and/or publishing significance and role of the discographer production in Slovenia and elsewhere.

The work performed enabled revitalization and access to almost forgotten and inaccessible Slovenian cultural heritage. It also reveals performance, reception and stylistic traits of the time which could have been so far only partially reconstructed from secondary sources (published reports and commentaries, memoirs, correspondence etc.). For the understanding and study of the history of music this acoustic documentation is invaluable and adds to the central task of the national library, i.e. collecting, preservation and use of important cultural heritage.

The very procedure of migration or digitization was carried out in several phases which proved to be sensibly chosen and in fact traced the direction of the methodology for future endeavors.

1. The records are dirty, dusty and have to be mechanically cleansed and washed.
2. A special needle for shellac records is mounted on a classical gramophone recorder on which the needle or whole pick-up can be replaced.
3. The program Adobe Audition is required.
4. Gramophone recorder and computer have to be connected.
5. Because gramophones running at 78 rpm are practically inexistent nowadays, the records have to be played at 33 rpm and the speed adjusted by means of a computer.
6. The sound recording is accurately transcribed from the analogue to digital medium with all scars, noises and cracks which are recordable with electronic technology.
7. By means of the program Adobe Audition digital recording is cleansed from all non-musical compounds.
8. Digital copy is stored in WAV (standard Windows audio format in big files) and in user, quality controlled MP3 files.
9. For the preservation of the visual image of the original source, both sides of a record are scanned.
10. A metadata scheme has to be made (more on it will be said later on).
11. Bibliographic description of materials, metadata scheme, building of the database.
12. Transfer and synchronization of audio in visual copies and the database on the Internet.
13. Visual representation has to be designed.
14. Definition of search options.

Let us say some more on the definition and composition of metadata. The shared Slovenian library system, called COBISS, is based on UNIMARC and accessible to the users through OPAC. It is a rather demanding system which enables bibliographic description according to ISBDs. For metadata bases for separate groups of materials accessible through Internet, different standards exist. Our library is now a member of the TEL-ME-MORE project (European Library: modular solutions for the sharing of electronic resources) and also a member of TEL (The European Library) which enables access to electronic resources of European national libraries according to the OAI protocol (Open Archives Initiative Protocol for Metadata Harvesting). For metadata, the standard Dublin Core is used which is more appropriate for the description of electronic resources because of its flexibility.

To avoid duplication of processing, a computer interface was designed which obtained data from COBISS (UNIMARC), adjusted them to fit DUBLIN CORE and transferred them into another database. The computer interface transferred separate fields and subfields from UNIMARC into DUBLIN CORE elements.

For example:

- element *Title* (in Dublin Core) is matched by fields and subfields 200\$a\$e (Title proper, Other title information) and fields and subfields in block 5—(Parallel Title, Caption Title, Running Title, Variant Title, Added Title-page Title) in UNIMARC;
  - element *Creator* is matched by fields and subfields from bloc 7—(Primary Responsibility and Alternative Responsibility of a person or corporate body).
- The conversion of data was performed without major errors.

Let us say something about search options. The database enabled the making of handy “active” lists: a list of music compositions according to title, a list of performers and publishers. The recording can be called up by a click on a button. Other possibilities are:

- quick search enables search using different parameters: **composer, arranger, author of text, performer, title, subtitle, place of publisher, name of publisher, date of publication, series, contents descriptor, key word.**
- advanced search enables more targeted results by means of combination of different parameters using operators **or** and **and**.

Descriptors list has been formed on the basis of the rules valid for the **Slovenian General Descriptors List** with special regard to music. Descriptors concentrate on music forms and casts (Wherever possible, the nouns is in plural forma – for example waltzes not waltz), genres (for example folk music), ethnical area (for example Slovenia) and approximate date of creation (ca. 1930).

You can see how does the above described theory look like in practice:

<http://www.nuk.uni-lj.si/digitalizacija/posnetki/indeks.asp>

Users can also export the electronic source. The desired recording has to be ordered by telephone or by mail in the Music Collection. Because the recordings are no longer under Copyright Law (copy right lasts for 50 years), reproduction is legal.

Brittle shellac gramophone records can now finally be stored standing upright in containers from acid-free cardboard in a storage with adequate humidity and temperature conditions and inaccessible to the users.

Such will be our direction in the future as well. The next step will be digitization of catalogues and of documentary materials of Slovenian musicians and institutions, followed by the digitization of endangered music periodicals and their archives. In this way, the most endangered materials will be spared the damage caused by direct use, however, without any illusion of permanent preservation. The users will be enabled electronic access to the materials, and, to put it that way, they will not access the materials from our reading room but from their work place. We will remain in our hidden little corner, right under the top of the magnificent Plecnik building.

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