

Liszt Ferenc Academy of Music
Doctoral School for the History of Art and Civilization, No.: 28.

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INFORMATION THEORY
AND FOLK MUSIC RESEARCH

Theses of the DLA Doctoral Dissertation

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I. BACKGROUND OF THE RESEARCH

Research into Hungarian folk music has come far since the eager enthusiasts of the romantic period. As the scientific views of the early 20th century solidified a precise term for the subject of research was finally born that came to be known as folk music. Since folk music is an integral part of folk culture,—a phenomenon that was not associated with the written tradition—the scientific methodology of researching classical European music was only applicable to the study of folk music to a limited degree. The unique workings of folklore define all that can be considered folk music, therefore its research called for a kind of study that was interdisciplinary by nature and was ideal for processing great volumes of collected data. The increase of accumulated data in central collections exceeded the limits of human musical memory and organising capability, which lead to the introduction of digital data processing technologies in the study of folk music.

The forerunners of modern folk music research were outstanding musicians and researchers at the same time. Thus initially the different stages of collecting data and organising it in scientific classificatory systems were not separated for them. These processes rather occurred parallelly, aiding each other. Their practice of data processing and publication defined scientific data organization in the field for decades. This resulted in some confusion concerning a number of fundamental concepts and terminuses. The terminology of accessing and organising information got intermingled with the terminology of scientific classificatory systems. This confusion fuelled significant differences of interpretation that blurred the boundaries between data, data carrier, and the semantic matrix of various musical genres. This effect can be felt in a range phenomena from the practices of publication to those of archiving.

II. SOURCES

It was my intention to widen the scope of secondary literature for my dissertation, therefore apart from the defining works of folk music research I also turned with interest to relevant interdisciplinary studies. The beneficial effects of this approach include the unearthing of documents that have so far eluded the attention of scholars. For example, I found manuscripts from the folk music historian, Rudolf Víg, that deal with computerized comparative analyses, published in a Parisian journal in 1977, that were hidden for 50 years. Also, I found studies interpreting folk music and dance in a journal of the Hungarian Academy of Sciences entitled, Computational Linguistics.

Naturally, I consulted the *Central Library of the Liszt Ferenc Academy of Music*, but with the helpful assistance of the *Library and Archives of the Institute for Musicology at the Research Centre for the Humanities of the Hungarian Academy of Sciences*, I had access to several difficult-to-find documents as well. Some of my important and so far unpublished sources come from the *Archives and Department for Folk Music and Folk Dance Research of the Institute for Musicology at the Research Centre for the Humanities of the Hungarian Academy of Sciences*. The overview of the necessary literature could not have been completed without the help of the *Arcanum DigiTheca*.

The third kind of sources are used in the following study come from interviews conducted with the key figures of the researched period. My topic led to me to the researchers of the Institute for Musicology to whom I owe great thanks. I would like to personally thank the help of Melinda Berlász, Anna Dalos, Mária Domokos, Ilona Ferenczi, János Fügedi, Beáta Meszéna, Katalin Paksa, Bálint Sárosi, Ferenc Sebő, Olga Szalay and Lujza Tari, and of my thesis advisors, István Pávai and Pál Richter. They all gladly shared their memories in connection with the history of folk music research and all the information they had access to. I also managed to secure interviews with two instrumental figures in connection with this research, the two mathematicians: Miklós Havass and Gábor Prószéký. The recollections of Miklós Havass and Bálint Sárosi are particularly valuable as they were in a unique position to share information in connection with the IFMC conference of 1964.

III. METHODOLOGY

My research started with the clarification of two key concepts regarding the search for information and organising it. This had a considerable influence on my research methodology. It became clear to me that the results of folk music research need to be placed in a wider context. Thus, I took on the responsibility of defining a number of terms and re-evaluating the historical background of folk music research according to the principles of information theory. As the most relevant roots of current Information organisation go back to the middle ages, the historical overview of my study needed to be extended so that it could include the results of Library studies. Alongside the general concepts and terminology of information theory, I examined the key points of tune-analysis and created a summative definition for the phenomenon of folk music amended with the characteristics of popular art songs.

With the help of the terminological and conceptual framework that I created, I attempted to establish a unified system for the analysis and organisation of folk music and the folklore phenomena to increase our ability of understanding it. I studied carefully the meeting points of folk music research, information theory and applied mathematics. This necessitated broadening the scope of secondary literature to include studies beyond those on general music research. On occasion, some studies revealed the existence of experiments far from the mainstream of music research, yet important for my study. I traced these with the toolset of the interview techniques of oral history research.

It is my hope that by clarifying the previously mentioned terminology, systematically summarising the results of the past century, analysing musical and non-musical descriptive data, and disambiguating content types, I can recontextualize the results of folk music research.

IV. RESULTS

In my dissertation, I summarize my research experience from the fifteen years I have spent at the Archives of Folk Music at the Institute for Musicology at the Research Centre for the Humanities of the Hungarian Academy of Sciences. After repeated individual assignments, I was first promoted here to the position of research assistant, then to deputy researcher. As a deputy researcher at the Archives since 2015, December, I have the responsibility of overseeing the Archives in the capacity of department manager. My activities have always bordered on multiple fields of interest. As I am simultaneously filling the roles of researcher, practising musician, and university instructor I have been constantly exposed to new aspects to consider for my research.

Working at archives is an ideal opportunity for combining a research-oriented mentality with the responsibilities of archiving, assisting research and publication. Providing basic functionality for an archive previously has been seen as only assisting research. By now it has become clear that archives do not only provide the source material for research but can also become the topics of research themselves. At an operating archive the perspectives of the researcher should work hand-in-hand with the perspectives of the archiver, thus enabling a flexible adaptability with respect to new technologies, methodologies and changing demands. Yet, the simultaneous presence of the two attitudes has its own dangers. There are many examples proving that these attitudes can get mixed when archives are established and collections are organised.

My research has yielded many results. I established the previously mentioned unified system of terminology. I attempted the visual representation for the segments of collections and scientific classificatory systems. I modelled the organisational system of the so called, *A Magyar Népzene Tára*, a 12-volume collection of Hungarian folk music. I also tried to establish the genealogy of the history of musical data organization. I carried out an analysis of the most relevant instances of musical data organisation, and unearthed its underlying organisational sequences according to the previously introduced system. I assessed and analysed the growth of the central folk music collection of the Institute for Musicology using the available resources, where I discussed in a unified, coherent framework the key aspects of tune-analysis (rhythm, tune, lyrics, form, style etc.).

Surprisingly some offshoots of the research have grown into individual chapters of my study, providing a considerable amount of new information for the study of folk music. Such was the case with the history of the *Európai Dallamtár*, a collection of European tunes, which is strongly connected to the beginnings of computerized tune-analysis. Because of contacting Miklós Havass the contents of the 1964 IFMC conference were also unearthed. These included the music sheets of the computer composed tunes that debuted at the conference and other contemporary documents. Furthermore, Rudolf Víg's manuscript that was lost in 1960s in the time of data-organisation technologies before computerisation and digitalisation was found, containing two authentic transcriptions of Bartók.

V. SCHOLARLY ACTIVITIES IN CONNECTION WITH THE DISSERTATION

Publications

Mátyás Bolya (editor): *Moldvahon zenei portál* [Musical Portal for Moldva Country]. (2004–2011). <http://www.moldvahon.hu>

Mátyás Bolya: *Magyar citerás antológia II. Lejegyzések, dalszövegek, életrajzok* [Anthology of Hungarian Zither music Vol. II., Transcriptions, Lyrics, Biographies]. Budapest: Dialekton, 2012. 2nd, revised edition, 2016.

Magyar Népzenei Antológia. Digitális összkiadás [Anthology of Hungarian Folk Music. Digital Complete Edition]. Pál Richter (editor in chief), Mátyás Bolya (technical editor), Budapest: FolkEurópa, MTA BTK [Hungarian Academy of Sciences, Research Centre for the Humanities], 2012.

Kodály-Rend. Kodály népzenei gyűjtemékből és történeti forrásokból létrehozott kéziratos dallamgyűjtemény [The Order of Kodály. Manuscript Collection Compiled from Kodály's

Folk Music Collections and Historical Sources]. (1905–1958). Digital publication, 2013. Olga Szalay (editor), Mátyás Bolya (database). <http://db.zti.hu/kr/index.htm>

Mátyás Bolya: *Magyar citerás antológia* [Hungarian Zither Anthology]. Online Educational Material, 2014. <http://mca.lfze.hu/>

Béla Bartók: *Magyar népdalok. Egyetemes Gyűjtemény* [Hungarian Folk Songs. Universal Collection]. István Pávai, Pál Richter (editor), Mátyás Bolya (data analysis). Digital publication. 2nd, Revised edition (2017). <http://systems.zti.hu/br/hu>

Mátyás Bolya: *A magyar népzeneésképzés szakterületi megújítása. Felmérés és koncepció. Képzési szintek szerinti harmonizáció, tudásátadási módszerek és tananyagcsaládok fejlesztése, dinamikus tartalomszolgáltatás megvalósítása infokommunikációs környezetben* [Reformation of Hungarian Folk Music Education. Survey and Concept. Harmonisation According to Education Levels, Knowledge-Transfer Techniques and Curriculum Development, Dynamic Content Sharing in an Info-Communicational Environment]. Budapest: MTA BTK ZTI [Institute for Musicology, Research Centre for the Humanities, Hungarian Academy of Sciences], 2017.

Mátyás Bolya: *A ZTI Népzenei Archívum folkloradatainak és adathordozóinak szabványosított jelzetformátumai* [Regulated Guides for the Folklore Data and the Data-Carriers of the Folk Music Archive of the Institute of Musicology]. Budapest, 2017 (Manuscript, MTA BTK ZTI [Institute for Musicology, Research Centre for the Humanities, Hungarian Academy of Sciences]).

Conference Presentations and Talks

Mátyás Bolya: *Népzenei anyagok online publikálásnak lehetőségei* [Possibilities of Online Publication for Folk Music]. MTA BTK ZTI [Institute for Musicology, Research Centre for the Humanities, Hungarian Academy of Sciences], Tudományos forum [Scientific Forum], 2014.

Mátyás Bolya: *Different Types of Sound Media in the Institute of Musicology RCH HAS*. Folkmedia Deposit. Workshop. Bucharest, 2016. October 20.

Mátyás Bolya: *From Wax Cylinders to Online Courses. Options of Publishing Ethno-Musical Materials Through the Example of the Repertoire of a Hungarian Folk Instrument*. Joint Annual Meeting of the Hungarian and Austrian National Committees in the ICTM. Current Projects and Methods in Hungarian and Austrian Ethnomusicology with a Focus on Young Researchers. Budapest, 2016. May 27–29.

Mátyás Bolya: *Folklore in Operation. A Presentation Through Examples from the Repertoire of a Hungarian Folk Instrument*. 35th Symposium on Musical Instrument Making. From the Scheitholt to the Concert Zither. History, Types, and the use of European Box Zithern. Kloster Michaelstein Musikakademie, Michaelstein, 2017. November 3–5.

Professional Activities

2003– MTA Zenetudományi Intézet Népzenei Archívum munkatársa [Research Assistant at the Archives of Folk Music, Institute for Musicology, Hungarian Academy of Sciences]

2012– MTA BTK ZTI Népzene- és Néptáncutató Osztály és Archívum, tudományos asszisztens [Deputy Researcher at the Archives and Department for Folk Music and Dance Research, Institute for Musicology, Research Centre for the Humanities, Hungarian Academy of Sciences]

2015– MTA BTK ZTI Népzene- és Néptáncutató Osztály és Archívum, részlegvezető [Manager at the Archives and Department for Folk Music and Dance Research, Institute for Musicology, Research Centre for the Humanities, Hungarian Academy of Sciences]

2015–2017 MTA BTK Adatbank projektfelelős a ZTI részéről [Data Bank Project Coordinator from the Institute for Musicology at the Research Centre for the Humanities, Hungarian Academy of Sciences]

2016– Népzenei adatok rögzítése és archiválása kurzus (LFZE Népzene Tanszék) [Teaching a course on recording and archiving folk music at the Liszt Ferenc Academy of Music]

2016– *Polyphony*. Creating an online platform for the collection and publication of Ukrainian folk. Miklós Both (editor), Gábor Horn (IT), Mátyás Bolya (consultant.)

2017– Mátyás Bolya (editor): MTA BTK Zenetudományi Intézet Hangarchívum [Audio Archives for the Research Centre for the Humanities at the Hungarian Academy of Sciences]. Digital publication.

2017 A Kodály-rend és a benne szereplő 19. századi történeti források [The Order of Kodály and the 19th Century Historical Sources Found in it] Online Publication. MTA BTK ZTI [Institute for Musicology, Research Centre for the Humanities, Hungarian Academy of Sciences]. Mátyás Bolya (concept).

2017 A Magyar Népzene Tára alkalomhoz nem kötött típusdallamainak rendszere az interneten [The Collection of Hungarian Folk Music. The Online System of Non-Occasion Specific Tune-Types]. MTA BTK ZTI [Institute for Musicology, Research Centre for the Humanities, Hungarian Academy of Sciences]. Mátyás Bolya (concept).

2017– A tanulók képesség kibontakoztatásának elősegítése a köznevelési intézményekben [Student Talent Fostering in Public Education] project (EFOP-3.2.6-16) népzenei tananyagfejlesztés modul szakmai koordinátora [Professional Coordinator for Folk Music Curriculum Development].